



# Revised Site Characterization Report and Remediation Workplan

January 12, 2026

**State BT A #004  
Historical Release  
Incident #nAPP2517750506  
API #30-025-40669  
Lease No. B0-9950-15**

**Prepared For:**

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A handwritten signature in blue ink that reads "Cynthia K. Crain".

Cynthia K. Crain, P.G.

State BT A #004 Historical Release  
Revised Site Characterization Report and Remediation Workplan



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## 1.0 Introduction

Crain Environmental (CE), on behalf of BXP Operating, LLC (BXP), has prepared this Revised Site Characterization Report and Remediation Workplan for the historical release at the State BT A #004 (Site), located in Unit Letter G, Section 2, Township 12 South, Range 33 East, Lea County, New Mexico. The global positioning system (GPS) coordinates for the Site are 33.309494, -103.582172. The property surface rights are owned by the State of New Mexico (Lease No. B0-9950-15). The location of the Site is depicted on Figure 1.

## 2.0 Background

On September 2, 2021, BXP received a letter from the New Mexico State Land Office (SLO) that identified a large path of bare ground indicating a past spill, and soil staining on the well pad. During an initial site inspection, CE observed a barren area approximately 150 feet (') x 30' along the south side of the State BT A #004 well pad, a barren area approximately 120' x 50' along the west side of the well pad, and soil staining around the storage tanks, separator, and load line. The barren areas off the well pad covered a surface area of approximately 10,500 square feet. The boundary of the release area is depicted on Figure 2.

A Notification of Release (NOR) was submitted to the New Mexico Oil Conservation Division (NMOCD) on June 26, 2025, and Incident #nAPP2517750506 was assigned. A Remediation Summary and Closure Request was then submitted to the NMOCD on June 26, 2025.

On July 21, 2025, the NMOCD denied closure of the Site for the following reasons (paraphrased), and requested that a remediation plan be submitted:

1. This application has been rejected because the C-141 is incomplete. The submitted application indicates a conflict between the questions answered and the attachments that have been submitted. Review your C-141 submission and submit a new C-141 answering the appropriate questions for your circumstance.
2. Operator failed to provide proper sample notification.
3. On 1/17/23 the report states that the area of SS-3, 4, 6, 11 as well as SW-4, SW-6, SW-7 and SW-8 were "treated". Explain what was done from 4/19/22 to 1/17/23. Were the excavations left open during this entire time? Explain all steps in the remediation process that have occurred at this site. Any chemically treated soil will not be approved for re-use and must be hauled to an OCD approved disposal.
4. As all the excavated areas had an insufficient number of samples collected, these areas will require re-excavation, with the soil being hauled away as a chemical treatment was applied that was not approved for use from the OCD and new five-point composite confirmation samples are required to be collected at a frequency of no more than 200 feet<sup>2</sup>.
5. Referring to Figure 2, bottom confirmation samples were collected at differing depths than their sidewall sample counterparts for both excavation areas. For example, SS-13 and SS-8 were collected at 3' depth however SW-11, SW-12 and SW-16 were collected from 0-2'. Explain this.
6. All samples must be tested for all Table I constituents, unless a variance is approved by OCD prior to sample collection.
7. Tank battery delineation is incomplete. Impacts were found at all delineation sample points and must be vertically delineated to below Closure Criteria; this includes SS-10, SS-2, TH-2. Horizontal delineation must meet the requirements of the reclamation standards 19.15.29.13 NMAC or OCD approved "background" values for the upper 4 feet of the impacted area.



8. OCD noted that the laboratory samples collected had numerous qualifiers. Clearly explain your sampling methods in remediation summary. Extreme caution should be used to better homogenize samples so that more accurate confirmation sample results are obtained.
9. Under the Site Characterization portion of the C-141 application the minimum distances to the following are incorrect and require updates upon resubmission: any lakebed, sinkhole, of playa lake (1/2-1 mile E) and a 100-year floodplain (>5 miles).

On October 20, 2025, a Site Characterization Report and Remediation Workplan was submitted to the NMOCD.

On November 6, 2025, OCD denied the remediation plan for the following reasons:

1. A reason of rejection from the 7/21/25 denial has not been addressed. Referring to Table 1, on 1/17/23, it states that the areas of SS-3, SS-4, SS-6, SS-11, SW-4, SW-6, SW-7 and SW-8 were "Treated". In addition, referring to Note 7 under Table I, it says "Green highlighting indicates soil has been excavated and treated or disposed." What were these areas treated with? Explain.
2. Due to shallow groundwater in the area, a reduced sample variance frequency will not be granted. Both sidewall and bottom confirmation samples should be collected at a frequency no greater than 200 ft<sup>2</sup>. All samples must be tested for all Table I constituents.
3. Pursuant to 19.15.29.12.C(1)(a) NMAC, each of the tank areas requires both vertical and horizontal delineation to be completed. Vertical delineation is to be to Closure Criteria and horizontal delineation must meet the requirements of the reclamation standards 19.15.29.13 NMAC (600 mg/kg Cl, 100 mg/kg TPH, 50 mg/kg BTEX, 10 mg/kg benzene) or OCD approved "background" values for the upper 4 feet of the impacted area. All samples collected must be tested for all Table I constituents. This should be completed for the following: SS-10, SS-9, TH-2 and SS-2.
4. Contamination found at TH-1 and SS-1 still requires remediation. SS-1 is required to be vertically delineated to below Closure Criteria.
5. Pursuant to 19.15.29.12.C(1)(c) NMAC a remediation plan is to include the estimated volume of impacted material to be remediated.
6. An NOR was submitted on 6/26/25 for this release. An initial C-141 must be submitted for this release immediately as one has not been submitted to date.

This Revised Site Characterization Report and Remediation Workplan has been prepared in accordance with 19.15.29.11 New Mexico Administrative Code (NMAC) and addresses NMOCD reasons for rejection of the original Site Characterization Report and Remediation Workplan.

### 3.0 NMOCD Closure Criteria

Cleanup standards for 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

Review of the New Mexico Office of the State Engineer (NMOSE) records indicated there are seven water wells within a 0.5-mile radius of the Site (L 01282, L 01396, L 01470, L 03411, L 10231, L 14214 POD 1, and L 01330). Depth to groundwater information was provided for all wells except well L 14214 POD 1. Each well and their recorded total depths and depths to groundwater (if available) are listed in the table below. Figure 3 provides a 0.5-mile radius circle around the Site and shows the location of each well listed below. Based on the water well data available in NMOSE records, it is estimated that depth to groundwater at the Site is less than 50 feet below ground surface (bgs). Appendix A provides copies of the NMOSE water well records for the three wells closest to the Site (L 01282, L 10231, and L 01470).

#### Nearby Water Wells

Well ID	Location from Site	Year Installed	Use	Well Depth and Depth to Water (feet bgs)
L 01282	Approx. 340 feet to the SW	1951	N/A	122 / 55
L 01396	Approx. 1,330 feet to the NW	1952	N/A	126 / 45
L 01470	Approx. 1,825 feet to the NE	1952	N/A	110 / 45
L 03411	Approx. 1,980 feet to the NW	1957	N/A	121 / 50
L 10231	Approx. 430 feet to the NW	1991	N/A	134 / 42
L 14214 POD1	Approx. 2,630 feet to the SW	2016	N/A	59 / no data
L 01330	Approx. 2,600 feet to the N	1951	N/A	115 / 55

### 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 fresh water 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 Site is located within an undetermined risk area but is assumed to be outside the 100-year floodplain. Figures 4, 5 and 6 depict the USFWS wetlands map, FEMA floodplain information, and the karst potential data, respectively.

### 3.4 Closure Criteria Applicable to the Site

The Closure Criteria applicable to the Site is based on the estimated depth to groundwater at the Site, which dictates the regulatory guidelines typically associated with groundwater depths less than 50 feet below ground surface (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
	GRO + DRO	NA	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 Section 3.1, the exact depth to groundwater beneath the Site is unknown. A review of the NMOSE water well records indicates that depth to groundwater is estimated to be less than 50 feet bgs.

##### 4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 3. As listed in the NMOSE database, there are seven water wells within a 0.5-mile radius of the Site, with depth to groundwater information provided for six of those wells. There were no water sources, springs, or other sources of fresh water 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 Summary of Remediation Activities

From January 3, 2022, through March 8, 2023, impacted soil was excavated to a maximum depth of 3.5' bgs from the barren areas south and west of the well pad, and to a maximum depth of 1' bgs around the storage tanks, treater, and load line.

On January 14, 2022, five-point confirmation soil samples were collected from the bottom of the off-pad excavation (SS-3, SS-4, SS-5, SS-6, SS-7, SS-8, SS-11, SS-12, and SS-13), from a depth of 1' bgs at the tank battery load line (SS-1), north of the east storage tanks (SS-2), and by the treater (SS-10), and from a depth of 0.5' bgs west of the west storage tank (SS-9). All soil samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Eurofins Environment Testing America (Eurofins) in Midland, Texas for analysis of TPH by Environmental Protection Agency (EPA) SW-846 Method 8015 Modified, BTEX by EPA SW-846 Method 8021B, and chlorides by EPA Method 300.

Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory report and chain-of-custody documentation is provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, concentrations of benzene and BTEX were reported below the test method detection limits in each sample. Concentrations of TPH were reported above the Closure Criteria in all samples except SS-1, SS-7, SS-8, and SS-12. Concentrations of chlorides were reported above the Closure Criteria in all samples except SS-2, SS-3, SS-7, and SS-12.

Excavation continued at the barren areas south and west of the well pad until five-point confirmation samples were collected from the sidewalls (SW-1 through SW-16) on March 2, 2022. All soil samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Eurofins for analysis of TPH by Environmental Protection Agency (EPA) SW-846 Method 8015 Modified, BTEX by EPA SW-846 Method 8021B, and chlorides by EPA Method 300.

Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory report and chain-of-custody documentation is provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, concentrations of benzene and BTEX were reported below the Closure Criteria in each sample. Concentrations of TPH were reported above the Closure Criteria in all samples except SW-13 and SW-14. Concentrations of chlorides were reported above the Closure Criteria in samples SW-1 (2,070 mg/kg), SW-6 (5,210 mg/kg), SW-7 (687 mg/kg), SW-8 (4,830 mg/kg), SW-9 (4,630 mg/kg), SW-13 (4,250 mg/kg), and SW-14 (2,450 mg/kg).

Excavation continued at the barren areas south and west of the well pad and in the tank battery areas, until five-point confirmation samples were collected from the bottom (SS-3 through SS-6, SS-8, and SS-11 through SS-13) and sidewalls (SW-1 through SW-16) of the excavation, and from sample points SS-1, SS-2, SS-9 and SS-10 at the tank batteries on April 19, 2022.

All soil samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Eurofins for analysis of constituents previously reported above the Closure Criteria (i.e., either TPH and/or chlorides).



Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory report and chain-of-custody documentation is provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, concentrations of TPH were reported above the Closure Criteria at samples SS-3 (242 mg/kg), SS-4 (310 mg/kg), SS-5 (1,120 mg/kg), SS-6 (764 mg/kg), SS-11 (359 mg/kg), SS-13 (229 mg/kg), SW-4 (652 mg/kg), SW-6 (2,840 mg/kg), SW-7 (771 mg/kg), SW-8 (3,000 mg/kg), SW-9 (137 mg/kg), SW-10 (142 mg/kg), SW-11 (123 mg/kg), SS-2 (3,700 mg/kg), SS-9 (779 mg/kg), and SS-10 (2,120 mg/kg).

On November 14, 2022, test holes were dug at areas that could be safely accessed by a backhoe at the west storage tank (TH-1) and the east storage tanks (TH-2). Test holes TH-1 and TH-2 were dug to a depth of 5' bgs, and samples were collected from depths of 1', 3', and 5' bgs at each hole. As space for the backhoe to operate was limited between the battery fence and tanks, deeper samples were not collected at TH-2 as a safety precaution.

All soil samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Eurofins for analysis of TPH, BTEX, and chlorides.

Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory report and chain-of-custody documentation is provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, concentrations of benzene, BTEX, and chlorides were reported below the Closure Criteria in each sample. Concentrations of TPH were reported below the Closure Criteria in samples from TH-1 at depths of 3' and 5' bgs, and in sample TH-2 at a depth of 1' bgs. As vertical and horizontal delineation was not achieved at the tank battery areas, proposed remediation of those areas will be addressed in Section 5.0.

Excavation continued at the barren areas south and west of the well pad until five-point confirmation samples were collected from the bottom (SS-3 through SS-6, SS-8, SS-11 and SS-13) and sidewalls (SW-1 through SW-16) of the excavation on January 17, 2023. Prior to sample collection, Elite Environmental Services, LLC (Elite) treated the soil at areas around sample points SS-3, SS-4, SS-6, SS-11, SW-4, SW-6, SW-7, and SW-8 by spraying a reagent called Bio-Regen SA1000, manufactured by 3Tier Technologies, on the in-situ soil.

All soil samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Eurofins for analysis of constituents previously reported above the Closure Criteria (i.e., either TPH and/or chlorides).

Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory report and chain-of-custody documentation is provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, concentrations of TPH were reported above the Closure Criteria at samples SS-3 (126 mg/kg), SS-4 (185 mg/kg), SS-5 (401 mg/kg), SS-6 (125 mg/kg), SS-11 (195 mg/kg), SW-4 (122 mg/kg), SW-6 (1,270 mg/kg), SW-7 (199 mg/kg), and SW-8 (191 mg/kg). Chloride concentrations were reported above the Closure Criteria in samples SS-5 (5,560 mg/kg), and SS-11 (1,450 mg/kg).

Upon receipt of laboratory results, additional excavation was conducted from the bottom of the excavation around sample points SS-3, SS-4, SS-5, SS-6, and SS-11, and from the sidewalls of samples SW-4, SW-



6, SW-7, and SW-8. Confirmation samples were recollected from bottom samples SS-3, SS-4, SS-6, and SS-11, and from sidewall samples SW-4, SW-6, SW-7, and SW-8 on February 23, 2023.

All soil samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Eurofins for analysis of constituents previously reported above the Closure Criteria (i.e., either TPH and/or chlorides).

Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory reports and chain-of-custody documentation are provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, the laboratory reported concentrations of TPH above the Closure Criteria at samples SS-5 (459 mg/kg), SS-11 (3,800 mg/kg), and SW-6 (1,410 mg/kg). Chloride concentrations were reported above the Closure Criteria at sample point SS-5 (1,690 mg/kg).

Excavation continued at sample points SS-5, SS-11, and SW-6 until five-point confirmation samples were collected on March 8, 2023. Each sample was placed in a laboratory prepared container, properly labeled, immediately placed on ice, and hand delivered to Eurofins for analysis of constituents previously reported above the Closure Criteria (i.e., either TPH and/or chlorides).

Table 1 provides a summary of the laboratory results, and sample locations with concentrations are provided on Figure 2. The laboratory report and chain-of-custody documentation are provided in Appendix B. Photographic documentation is provided in Appendix C.

Referring to Table 1, all final TPH, BTEX, and chloride concentrations from samples collected from the off-pad excavation were reported below the Closure Criteria.

All excavated soil (approximately 1,662 cubic yards) was hauled to Gandy Marley, Inc. (GM) for disposal. As soil was disposed at GM, clean soil was brought back to the Site and stockpiled on the well pad to be used as backfill of the excavated areas.

As final confirmation samples from the excavation to the south and west of the well pad reported TPH, BTEX, and chloride concentrations below the Closure Criteria, the excavations were backfilled with the clean soil from GM from February 23 through March 23, 2023. Following backfill, the surface was contoured to original surface grade. Photographic documentation is provided in Appendix C.

All confirmation samples were collected with a hand trowel. As many samples were collected from hard rock surfaces, it is sometimes difficult to collect homogeneous samples.

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

Laboratory data in Report Numbers 880-10284-1, 880-12011-1, 880-13931-1, 880-21690-1, 880-24010-1, 880-25166-1, and 890-4253-1 generated by Eurofins, was 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 as Appendix B.



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## 5.0 Proposed Remediation Workplan

As sample locations include areas located in previously disturbed areas, compliance with the Cultural Properties Protection (CPP) rule will apply, and an Archaeological Survey has been conducted. The Survey Cover Sheet for NMCRIS Activity Number 156735 is included as Appendix D.

A biological desktop review was conducted, and no critical habitats were found in proximity to the subject Site. A copy of the U.S. Fish & Wildlife Service database review is included as Appendix E.

BXP proposes to remove all backfilled soil (approximately 1,662 cubic yards) from the excavation located west and south of the well pad and collect five-point composite samples from the bottom and sidewalls of the original excavation at a frequency of one sample per 200 ft<sup>2</sup>. All confirmation samples will be analyzed for TPH, BTEX, and chlorides.

Soil around sample points SS-3, SS-4, SS-6, SS-11, SW-4, SW-6, SW-7, and SW-8 was treated by spraying Bio-Regen SA1000 on the in-situ soil. All treated soil and all other excavated soil was disposed of at GMI (approximately 1,662 cubic yards), and clean soil from GMI was used as backfill.

All backfill soil will be excavated and stockpiled adjacent to the excavation to be used for backfilling after confirmation samples report TPH, BTEX, and chloride concentrations below the NMOCD Closure Criteria. Samples will be collected from the stockpiled soil at a frequency of one sample per 100 cubic yards, and each sample will be analyzed for TPH, BTEX, and chlorides. If additional excavation is required, any additionally excavated soil will be hauled to disposal at GMI.

Pursuant to 19.15.29.13 NMAC, the excavated area will be restored to pre-release conditions. Following backfill, surface grading will be performed to near original conditions and contoured to prevent erosion and ponding, promote stability, and preserve storm water flow patterns. The area will be seeded with a NMSLO coarse seed mixture during the next favorable growing season. The remediation area covers an approximate surface area of 10,500 square feet.

BXP also proposes to excavate as much impacted soil as possible at the Tank Battery (sample points SS-1, SS-2, SS-9, SS-10, TH-1, and TH-2). Additional samples will be collected to determine horizontal and vertical delineation to defer remediation under storage tanks and equipment until time of abandonment of the Battery.

## 6.0 Schedule of Implementation

BXP respectfully requests a remediation schedule of 180 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 and ECO approval. The Closure Report will summarize remediation activities and confirmation sampling results and will include a scaled Site map and photographs of the final excavation.



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## 7.0 Distribution

- Copy 1: Mike Bratcher  
New Mexico Energy, Minerals, and Natural Resources Department  
Oil Conservation Division  
Via email at: Mike.Bratcher@emnrd.nm.gov
- Copy 2: Environmental Compliance Office  
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**TABLE**

TABLE 1  
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS  
BXP OPERATING, LLC  
STATE BT A #004  
LEASE NO. B0-9950-15

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Status	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria				-	-	-	100	10	-	-	-	50	600
SS-3	01/14/22	2	Excavated	<15.0	4,850	<15.0	4,850	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	35.1
	04/19/22	3	Excavated	<15.0	223	18.7 J	242	--	--	--	--	--	--
	01/17/23	3.5	Treated	44.1 J *1	63.9 *1	17.6 J	126	--	--	--	--	--	--
	02/23/23	3.5	In Situ	21.7 JB	<15.0	<15.0	21.7 J	--	--	--	--	--	--
SS-4	01/14/22	2	Excavated	<15.0	2,190	<15.0	2,190	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	716
	04/19/22	3	Excavated	<15.0	220	89.9	310	--	--	--	--	--	577
	01/17/23	3.5	Treated	32.0 J *1	131 *1	21.9 J	185	--	--	--	--	--	--
	02/23/23	3.5	In Situ	30.9 JB	<15.0	<15.0	30.9 J	--	--	--	--	--	--
SS-5	01/14/22	1	Excavated	<15.0	262	<15.0	262	<0.000385	<0.000456	<0.000565	<0.00101	<0.00101	3,800 F1
	04/19/22	2	Excavated	<15.0	986	129	1,120	--	--	--	--	--	2,270
	01/17/23	2.5	Excavated	36.7 J *1	316 *1	48.1 J	401	--	--	--	--	--	5,560
	02/23/23	2.5	Excavated	<15.0	459	<15.0	459	--	--	--	--	--	1,690
	03/08/23	3	In Situ	<50.0	<50.0	<50.0	<50.0	--	--	--	--	--	159
SS-6	01/14/22	1	Excavated	<15.0	1,600	<15.0	1,600	<0.000389	<0.000461	<0.000571	<0.00102	<0.00102	820
	04/19/22	2	Excavated	<15.0	710	54.0	764	--	--	--	--	--	1,380
	01/17/23	2.5	Treated	45.7 J *1	59.3 *1	19.9 J	125	--	--	--	--	--	52.0
	02/23/23	2.5	In Situ	46.8 JB	<15.0	<15.0	46.8 J	--	--	--	--	--	--
SS-7	01/14/22	1.5	In Situ	<15.0	59.1	<15.0	59.1	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	339
SS-8	01/14/22	1.5	Excavated	<15.0	51.3	<15.0	51.3	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	692
	04/19/22	2.5	Excavated	--	--	--	--	--	--	--	--	--	1,580
	01/17/23	3	In Situ	--	--	--	--	--	--	--	--	--	24.7
SS-11	01/14/22	1	Excavated	<15.0	1,830	<15.0	1,830	<0.000387	<0.000458	<0.000567	<0.00101	<0.00101	2,350
	04/19/22	2	Excavated	<15.0	284	74.5	359	--	--	--	--	--	2,890
	01/17/23	2.5	Treated	34.7 J *1	137 *1	23.1 J	195	--	--	--	--	--	1,450
	02/23/23	2.5	Excavated	23.2 JB	3,780	<15.0	3,800	--	--	--	--	--	460
	03/08/23	3	In Situ	<49.9	<49.9	<49.9	<49.9	--	--	--	--	--	--
SS-12	01/14/22	1	Excavated	<15.0	138	<15.0	138	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	359
	04/19/22	2	In Situ	<15.0	<15.0	50.4	50.4	--	--	--	--	--	--
SS-13	01/14/22	1.5	Excavated	<15.0	130	<15.0	130	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	1,030
	04/19/22	2.5	Excavated	<15.0	210	19.4 J	229	--	--	--	--	--	728
	01/17/23	3	In Situ	34.7 J *1	42.0 J *1	<15.0	76.7	--	--	--	--	--	14.2
<b>Sidewalk Confirmation Samples</b>													
SW-1	03/02/22	0-2	Excavated	<15.0	2,010	459 B	2,470	0.000613 J	0.00110 J	0.00155 J	<0.00100	0.00372 J	2,070
	04/19/22	0-2.5	In Situ	30.8 J	<15.0	28.4 J	59.2	--	--	--	--	--	30.1
SW-2	03/02/22	0-2	Excavated	<15.0	346	62.6 B	409	<0.000383	0.00141 J	<0.000563	<0.00101	0.00141 J	25.4
	04/19/22	0-2.5	In Situ	<15.0	<15.0	25.9 J	25.9 J	--	--	--	--	--	--
SW-3	03/02/22	0-2	Excavated	<15.0	746	182 B	928	0.000404 J	0.000933 J	<0.000563	<0.00101	0.00134 J	59.9
	04/19/22	0-2.5	In Situ	<15.0	<15.0	20.3 J	20.3 J	--	--	--	--	--	--
SW-4	03/02/22	0-2	Excavated	17.8 J B	55.4	68.4 B	142	0.000732 J	0.00160 J	0.00112 J	<0.00102	0.00391 J	21.4
	04/19/22	0-2.5	Excavated	<15.0	574	77.7	652	--	--	--	--	--	--
	01/17/23	0-2.5	Treated	45.7 J *1	56.3 *1	19.9 J	122	--	--	--	--	--	--
	02/23/23	0-2.5	In Situ	44.9 JB	<15.0	<15.0	44.9 J	--	--	--	--	--	--
SW-5	03/02/22	0-2	Excavated	19.5 J B	402	60.2 B	482	<0.000383	0.000721 J	<0.000562	<0.00100	<0.00100	46.0
	04/19/22	0-2.5	In Situ	<15.0	<15.0	36.9 J	36.9 J	--	--	--	--	--	--
SW-6	03/02/22	0-1	Excavated	<15.0	814	195 B	1,010	<0.000385	0.000779 J	<0.000565	<0.00101	<0.00101	5,210
	04/19/22	0-2	Excavated	<15.0	2,330	511	2,840	--	--	--	--	--	5,090
	01/17/23	0-2	Treated	45.7 J *1	1,100 *1	121	1,270	--	--	--	--	--	367
	02/23/23	0-2	Excavated	<15.0	1,410	<15.0	1,410	--	--	--	--	--	--
	03/08/23	0-3	In Situ	<50.0	<50.0	<50.0	<50.0	--	--	--	--	--	--
SW-7	03/02/22	0-1	Excavated	18.9 J B	1,170	295 B	1,480	<0.000384	0.000548 J	<0.000564	<0.00101	<0.00101	687
	04/19/22	0-2	Excavated	<15.0	684	86.9	771	--	--	--	--	--	733
	01/17/23	0-2	Treated	30.8 J *1	138 *1	30.3 J	199	--	--	--	--	--	23.6
	02/23/23	0-2	In Situ	19.6 JB	<15.0	<15.0	19.6 J	--	--	--	--	--	--
SW-8	03/02/22	0-1	Excavated	16.6 J B	2,280	562 B	4,830	<0.000387	0.000680 J	<0.000567	<0.00101	<0.00101	4,830
	04/19/22	0-2	Excavated	25.1 J	2,340	636	3,000	--	--	--	--	--	966
	01/17/23	0-2	Treated	37.2 J *1	127 *1	26.6 J	191	--	--	--	--	--	5.40
	02/23/23	0-2	In Situ	43.2 JB	<15.0	<15.0	43.2 J	--	--	--	--	--	--
SW-9	03/02/22	0-1	Excavated	<15.0	4,310	826 B	5,140	<0.000383	0.000747 J	<0.000563	<0.00101	<0.00101	4,630
	04/19/22	0-2	Excavated	<15.0	70.8	66.6	137	--	--	--	--	--	3,410
	01/17/23	0-2	In Situ	31.7 J	15.2 J	<15.0	46.9 J	--	--	--	--	--	29.6
SW-10	03/02/22	0-1	Excavated	20.1 J B	19.2 J	79.1 B	118	<0.000386	0.000517 J	<0.000566	<0.00101	<0.00101	217
	04/19/22	0-2	Excavated	<15.0	99.3	42.6 J	142	--	--	--	--	--	--
	01/17/23	0-2	In Situ	35.7 J	21.5 J	<15.0	57.2	--	--	--	--	--	--

TABLE 1  
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS  
BXP OPERATING, LLC  
STATE BT A #004  
LEASE NO. B0-9950-15

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Status	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria				-	-	-	100	10	-	-	-	50	600
SW-11	03/02/22	0-1.5	Excavated	<15.0	1,110	238 B	1,350	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	542
	04/19/22	0-2	Excavated	20.0 J	103 B	<15.0	123	--	--	--	--	--	--
	01/17/23	0-2	In Situ	25.3 J B	18.1 J	15.0 J	58.4	--	--	--	--	--	--
SW-12	03/02/22	0-1.5	Excavated	16.0 J B	123	49.0 J B	188	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	428
	04/19/22	0-2	In Situ	<15.0	97.4 B	<15.0	97.4	--	--	--	--	--	--
SW-13	03/02/22	0-1.5	Excavated	15.9 J B	25.6 J	47.7 J B	89.2	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	4,250
	04/19/22	0-2	In Situ	--	--	--	--	--	--	--	--	--	31.5
SW-14	03/02/22	0-1.5	Excavated	24.8 J B	15.6 J	36.3 J B	76.7	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	2,450
	04/19/22	0-2	Excavated	--	--	--	--	--	--	--	--	--	1,460
	01/17/23	0-2	In Situ	--	--	--	--	--	--	--	--	--	47.9
SW-15	03/02/22	0-1.5	Excavated	16.1 J B	420	267 B	703	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	218
	04/19/22	0-2	In Situ	17.5 J	31.9 JB	<15.0	49.4 J	--	--	--	--	--	--
SW-16	03/02/22	0-1.5	Excavated	18.1 J B	275	70.7 B	364	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	61.2
	04/19/22	0-2	In Situ	19.7 J	41.2 JB	<15.0	60.9	--	--	--	--	--	--
<b>Tank Battery Delineation Samples</b>													
SS-1	01/14/22	1	Excavated	<15.0	39.3 J	<15.0	39.3 J	<0.000384 F2 F1	<0.000455 F1	<0.000564 F2 F1	<0.00101 F2 F1	<0.00101	2,410
	04/19/22	1.5	In Situ	--	--	--	--	--	--	--	--	--	1,020
SS-2	01/14/22	1	Excavated	<15.0	4,260	<15.0	4,260	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	316
	04/19/22	1.5	In Situ	<15.0	2,790	905	3,700	--	--	--	--	--	--
SS-9	01/14/22	0.5	Excavated	<15.0	4,560	<15.0	4,560	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	725
	04/19/22	1	In Situ	<15.0	495	284	779	--	--	--	--	--	852
SS-10	01/14/22	1	Excavated	<74.9	6,220	<74.9	6,220	<0.000386	<0.000457	<0.000566	0.000469 J	<0.00101	1,640
	04/19/22	1.5	In Situ	37.5 J	1,520	563	2,120	--	--	--	--	--	2,450 F1
TH-1	11/14/22	1	In Situ	<15.0	217	<15.0	217	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	107
	11/14/22	3	In Situ	27.5 J B	46.6 J	<15.0	74.1	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	31.2
	11/14/22	5	In Situ	<15.0	<15.0	<15.0	<15.0	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	197
TH-2	11/14/22	1	In Situ	30.5 J B	<14.9	<14.9	30.5 J	<0.000387	<0.000458	<0.000567	<0.00101	<0.0101	76.2
	11/14/22	3	In Situ	259 B	1,230	<14.9	1,490	<0.00767	<0.00908	0.102	0.215	0.317	173
	11/14/22	5	In Situ	619 B	2,350	<15.0	2,970	<0.00765	<0.00907	0.329	0.477	0.806	228

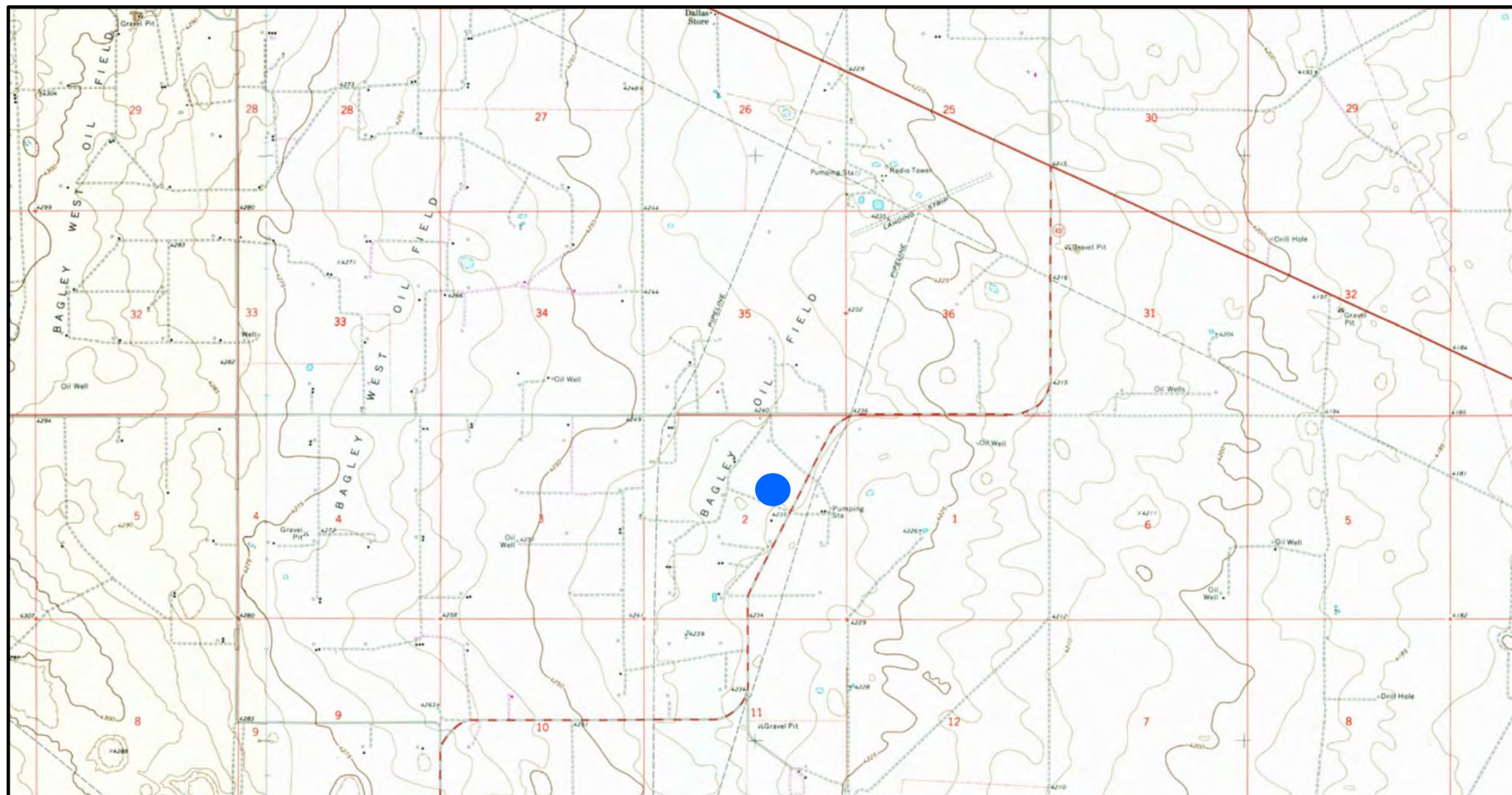
Notes:




- GRO: Gasoline Range Organics
- DRO: Diesel Range Organics
- MRO: Motor Oil Range Organics
- Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
- < indicates the COC was below the appropriate laboratory method/sample detection limit
- Yellow highlighting indicates the COC concentration exceeds the NMOCD Closure Criteria
- Green highlighting indicates soil has been excavated and treated or disposed.
- F1: MS and/or MSD recovery exceeds control limits.
- B: Compound was found in the blank and sample.
- J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
- \*1: LCS/LCSD RPD exceeds control limits.

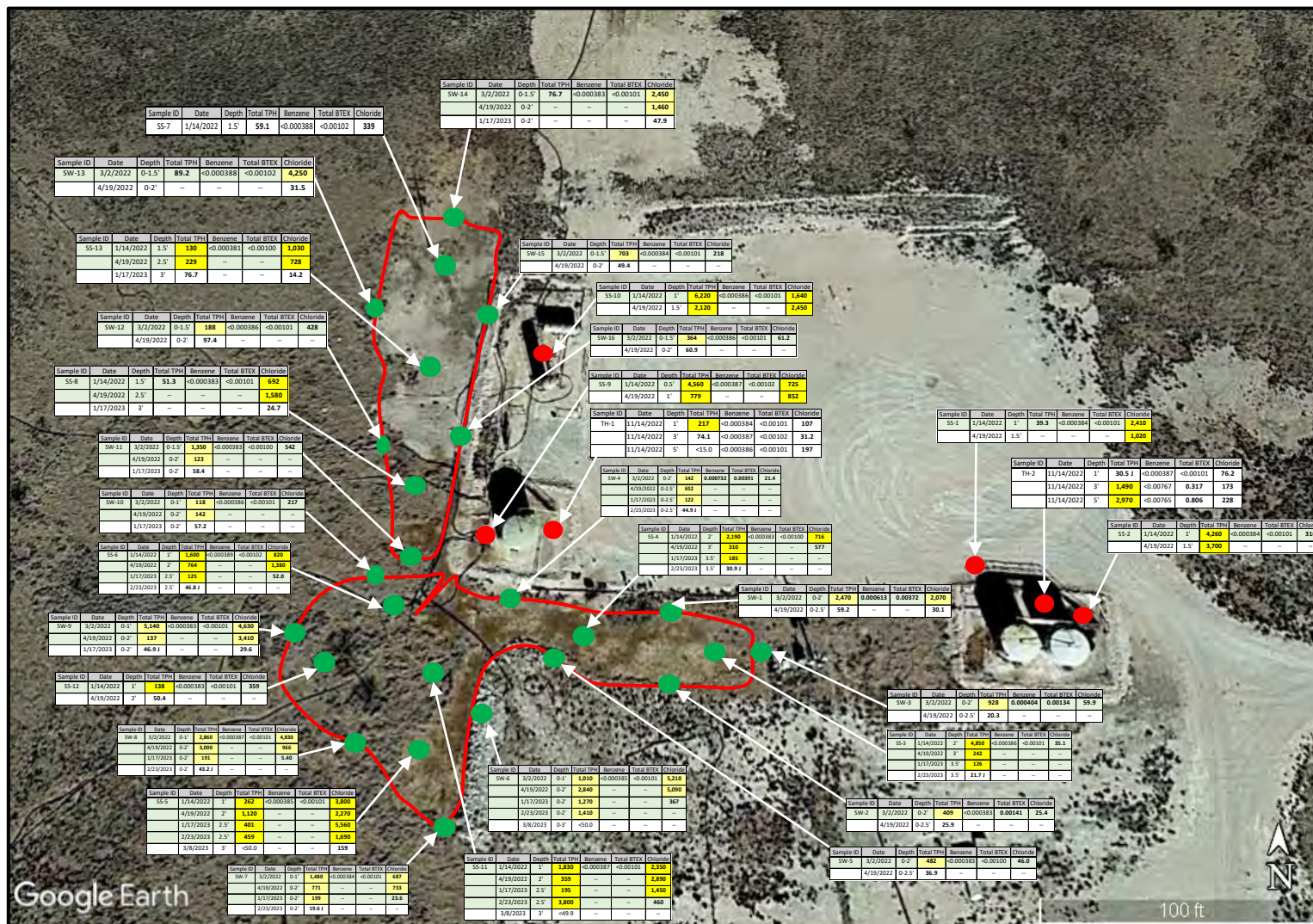


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## FIGURES



<p><b>LEGEND:</b></p> <p> Site Location</p> <p>Base Map from GAIA GPS</p>		<p><b>Figure 1</b></p> <p>Site Location Map</p> <p>BXP Operating, LLC</p> <p>State BT A #004</p> <p>Lea County, New Mexico</p>		<p>Drafted by: CC   Checked by: CC</p>	
		<p>Draft: April 5, 2023</p>		<p>GPS: 33.309494° -103.582172°</p>	



**LEGEND:**

- Excavation Boundary
- Excavation Sample Location With Concentrations (mg/kg).
- Tank Battery Sample Location With Concentrations (mg/kg).
- Yellow highlighting indicates concentrations above the Closure Criteria.
- Green highlighting indicates soil was excavated and disposed.

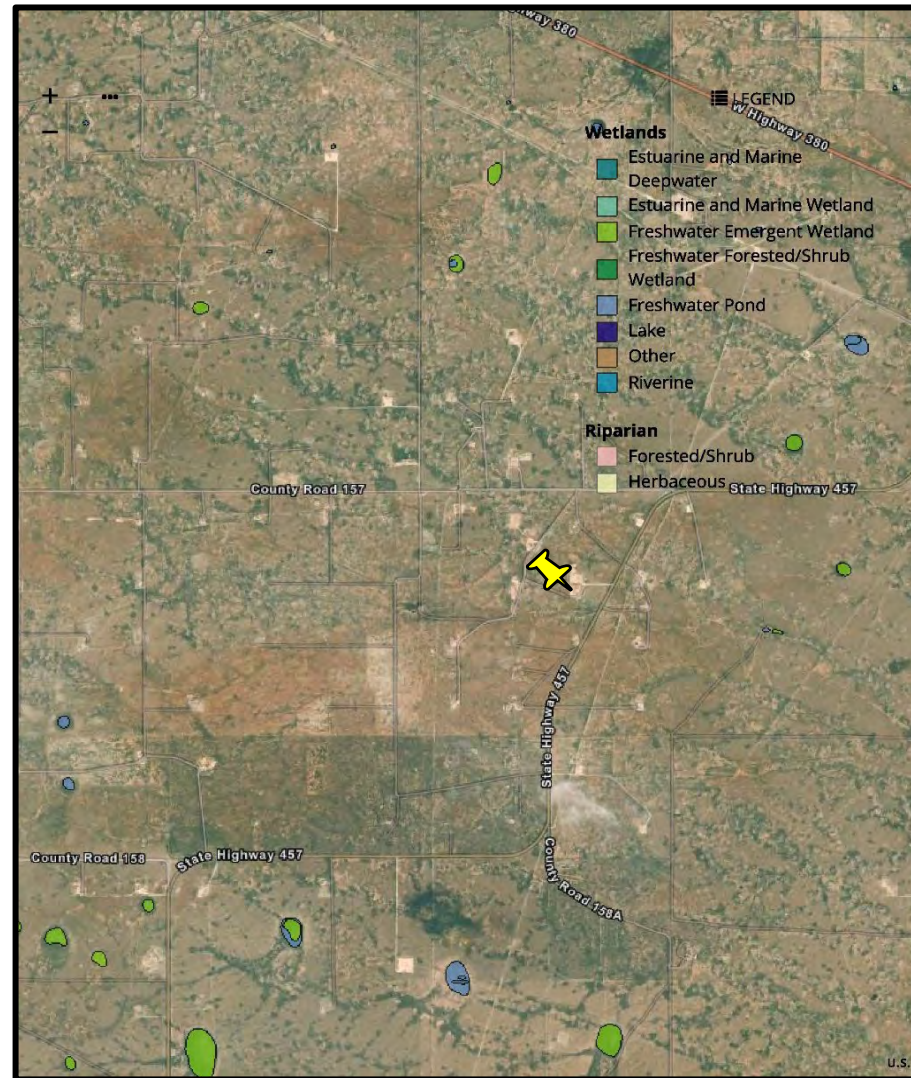
**Figure 2**  
**Sample Location Map**  
**BXP Operating, LLC**  
**State BT A #004**  
**Lea County, New Mexico**



Drafted by: CC | Checked by: CC  
 Draft: April 5, 2023  
 GPS: 33.309494° -103.582172°

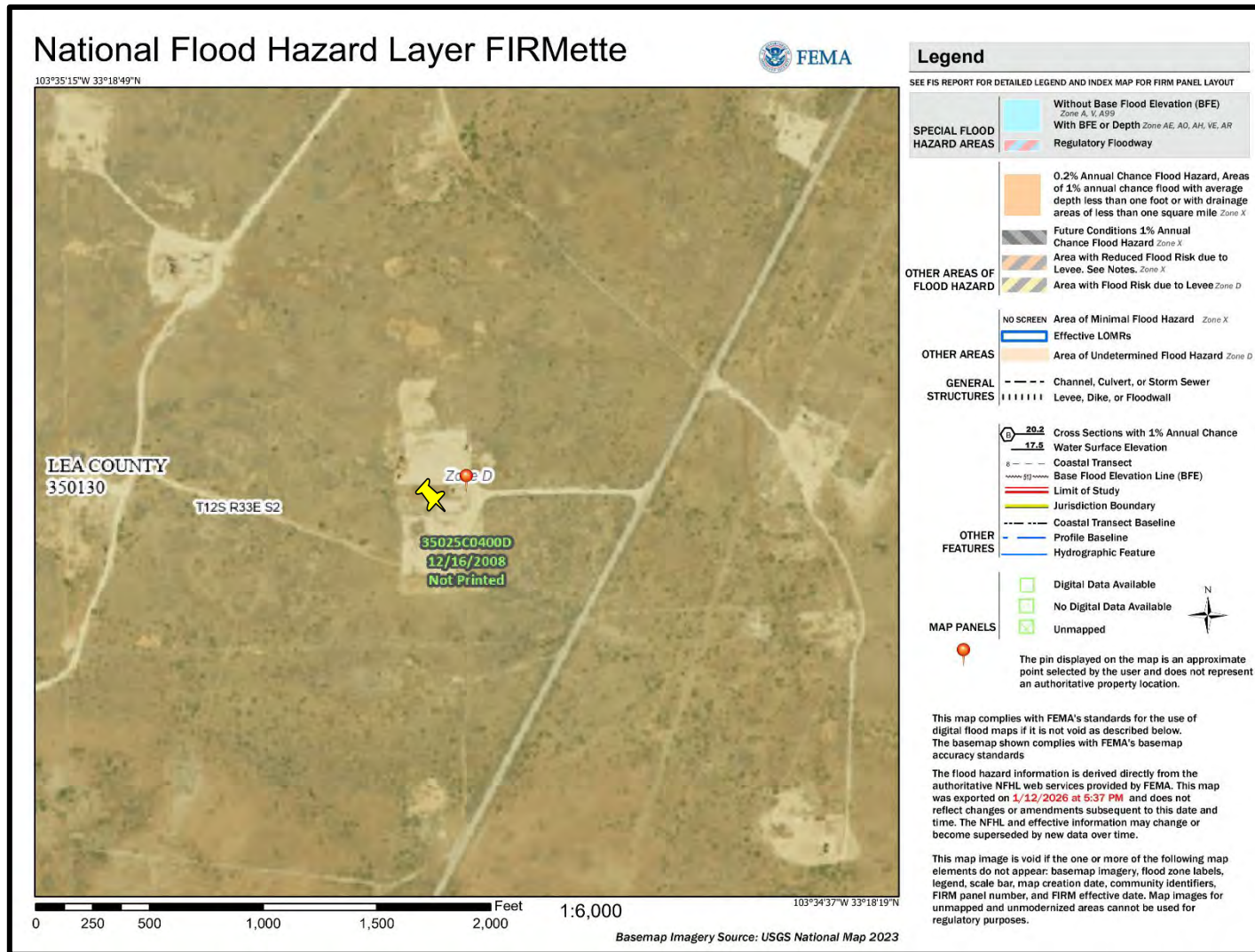




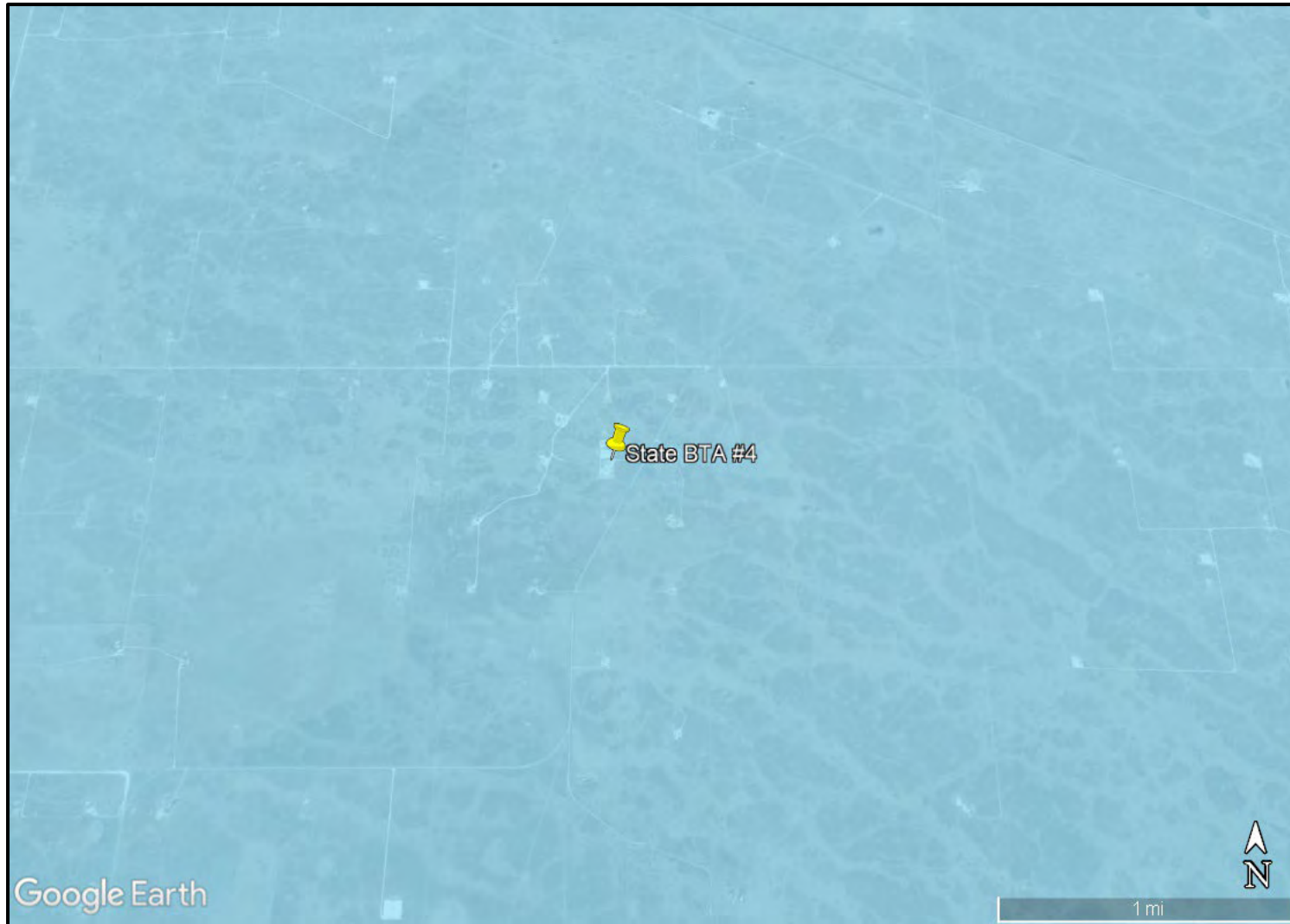
<p><b>LEGEND:</b></p> <p> Site and Water Well Locations</p> <p> 1/2 Mile Radius</p> <p>Base Map from Google Earth</p>	<p><b>Figure 3</b></p> <p>Wellhead Protection Area Map</p> <p>BXP Operating, LLC</p> <p>State BT A #004</p> <p>Lea County, New Mexico</p>		
		Drafted by: CC   Checked by: CC	
		Draft: April 5, 2023	
		GPS: 33.309494° -103.582172°	








<p><b>LEGEND:</b></p>  Site Location	<p><b>Figure 4</b> USFWS Wetlands Map BXP Operating, LLC State BT A #004 Lea County, New Mexico</p>	Drafted by: CC   Checked by: CC	
		Draft: Jan. 12, 2026	
GPS: 33.309494° -103.582172°			
Base Map from Google Earth and USFWS			



<p><b>LEGEND:</b></p> <p> Site Location</p> <p>Base Map from Google Earth and FEMA StayDry</p>	<p><b>Figure 5</b></p> <p>FEMA Floodplain Map</p> <p>BXP Operating, LLC</p> <p>State BT A #004</p> <p>Lea County, New Mexico</p>	Drafted by: CC   Checked by: CC	
		Draft: Jan. 12, 2026	
		GPS: 33.309494° -103.582172°	



<b>LEGEND:</b>  Site Location  Low Karst Potential  Medium Karst Potential  High Karst Potential Base Map from Google Earth and WHYMAP	<b>Figure 6</b> Karst Potential Map BXP Operating, LLC State BT A #004 Lea County, New Mexico			
		Drafted by: CC   Checked by: CC		
		Draft: April 5, 2023		
		GPS:		33.309494°    -103.582172°



## Appendix A: NMOSE Water Well Records



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L	01282	3	2	02	12S	33E	631961	3686508*	

<b>Driller License:</b> 33	<b>Driller Company:</b> TATUM CLAUDE E.		
<b>Driller Name:</b> CLAUDE TATUM			
<b>Drill Start Date:</b> 10/09/1951	<b>Drill Finish Date:</b> 10/11/1951	<b>Plug Date:</b> 08/30/1954	
<b>Log File Date:</b> 02/18/1952	<b>PCW Rev Date:</b> 02/18/1952	<b>Source:</b> Shallow	
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>	
<b>Casing Size:</b> 7.00	<b>Depth Well:</b> 122 feet	<b>Depth Water:</b> 55 feet	

Water Bearing Stratifications:	Top	Bottom	Description
	55	122	Sandstone/Gravel/Conglomerate

\*UTM location was derived from PLSS - see Help

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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POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L 10231		1	3	2	02	12S	33E	631860	3686607*

<b>Driller License:</b>	421	<b>Driller Company:</b>	GLENN'S WATER WELL SERVICE						
<b>Driller Name:</b>	GLENN, CLARK A. "CORKY" (LD)								
<b>Drill Start Date:</b>	11/18/1991	<b>Drill Finish Date:</b>	11/18/1991	<b>Plug Date:</b>					
<b>Log File Date:</b>	11/25/1991	<b>PCW Rev Date:</b>		<b>Source:</b>	Shallow				
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	100 GPM				
<b>Casing Size:</b>	6.63	<b>Depth Well:</b>	134 feet	<b>Depth Water:</b>	42 feet				

Water Bearing Stratifications:	Top	Bottom	Description
	66	134	Other/Unknown

Casing Perforations:	Top	Bottom
	66	134

\*UTM location was derived from PLSS - see Help

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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POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer 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 Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
L	01470	2	2	02	12S	33E	632356	3686915*	

---

**Driller License:** 33                                      **Driller Company:** TATUM CLAUDE E.

**Driller Name:**

**Drill Start Date:** 05/23/1952                      **Drill Finish Date:** 05/24/1952                      **Plug Date:** 06/12/1952

**Log File Date:** 06/20/1952                      **PCW Rev Date:**                                              **Source:** Shallow

**Pump Type:**                                              **Pipe Discharge Size:**                                              **Estimated Yield:**

**Casing Size:** 6.00                                      **Depth Well:** 110 feet                                      **Depth Water:** 45 feet

---

Water Bearing Stratifications:	Top	Bottom	Description
		25	
	45	110	Sandstone/Gravel/Conglomerate

---

Casing Perforations:	Top	Bottom
		80

\*UTM location was derived from PLSS - see Help

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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POINT OF DIVERSION SUMMARY



## Appendix B: Laboratory Analytical Reports



Environment Testing  
America

## ANALYTICAL REPORT

Eurofins Midland  
1211 W. Florida Ave  
Midland, TX 79701  
Tel: (432)704-5440

Laboratory Job ID: 880-10284-1  
Laboratory Sample Delivery Group: Lea Co., NM  
Client Project/Site: BT A #4

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

Attn: Cindy Crain

Authorized for release by:  
1/20/2022 3:45:15 PM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)



### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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- 13
- 14

Client: Crain Environmental  
Project/Site: BT A #4

Laboratory Job ID: 880-10284-1  
SDG: Lea Co., NM

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## Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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.
α	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)

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### Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

#### Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Case Narrative

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Job ID: 880-10284-1**

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative  
880-10284-1**

**Receipt**

The samples were received on 1/17/2022 4:04 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 4.7°C

**GC VOA**

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: SS-1 (880-10284-1), SS-5 (880-10284-5), SS-10 (880-10284-10) and (MB 880-17103/1-A). Evidence of matrix interferences is not obvious.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-17134 and analytical batch 880-17181 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-17135 and analytical batch 880-17284 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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



## Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

Client Sample ID: SS-1

Lab Sample ID: 880-10284-1

Date Collected: 01/14/22 12:55

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U F2 F1	0.00200	0.000384	mg/Kg		01/18/22 07:57	01/18/22 11:40	1
Toluene	<0.000455	U F1	0.00200	0.000455	mg/Kg		01/18/22 07:57	01/18/22 11:40	1
Ethylbenzene	<0.000564	U F2 F1	0.00200	0.000564	mg/Kg		01/18/22 07:57	01/18/22 11:40	1
m-Xylene & p-Xylene	<0.00101	U F2 F1	0.00399	0.00101	mg/Kg		01/18/22 07:57	01/18/22 11:40	1
o-Xylene	<0.000343	U F2 F1	0.00200	0.000343	mg/Kg		01/18/22 07:57	01/18/22 11:40	1
Xylenes, Total	<0.00101	U F2 F1	0.00399	0.00101	mg/Kg		01/18/22 07:57	01/18/22 11:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/18/22 07:57	01/18/22 11:40	1
1,4-Difluorobenzene (Surr)	99		70 - 130	01/18/22 07:57	01/18/22 11:40	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	39.3	J	50.0	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 11:43	1
Diesel Range Organics (Over C10-C28)	39.3	J	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 11:43	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 11:43	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	68	S1-	70 - 130	01/18/22 08:32	01/18/22 11:43	1			
o-Terphenyl	71		70 - 130	01/18/22 08:32	01/18/22 11:43	1			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2410		24.9	4.27	mg/Kg			01/19/22 14:47	5

Client Sample ID: SS-2

Lab Sample ID: 880-10284-2

Date Collected: 01/14/22 13:00

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		01/18/22 07:57	01/18/22 12:01	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		01/18/22 07:57	01/18/22 12:01	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		01/18/22 07:57	01/18/22 12:01	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		01/18/22 07:57	01/18/22 12:01	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		01/18/22 07:57	01/18/22 12:01	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		01/18/22 07:57	01/18/22 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130	01/18/22 07:57	01/18/22 12:01	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-2**

**Lab Sample ID: 880-10284-2**

Date Collected: 01/14/22 13:00

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	114		70 - 130	01/18/22 07:57	01/18/22 12:01	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4260		49.9	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 12:46	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>4260</b>		49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 12:46	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	01/18/22 08:32	01/18/22 12:46	1
o-Terphenyl	93		70 - 130	01/18/22 08:32	01/18/22 12:46	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	316		4.96	0.851	mg/Kg			01/19/22 14:55	1

**Client Sample ID: SS-3**

**Lab Sample ID: 880-10284-3**

Date Collected: 01/14/22 13:10

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		01/18/22 07:57	01/18/22 12:21	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		01/18/22 07:57	01/18/22 12:21	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		01/18/22 07:57	01/18/22 12:21	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		01/18/22 07:57	01/18/22 12:21	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		01/18/22 07:57	01/18/22 12:21	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		01/18/22 07:57	01/18/22 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/18/22 07:57	01/18/22 12:21	1
1,4-Difluorobenzene (Surr)	137	S1+	70 - 130	01/18/22 07:57	01/18/22 12:21	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4850		50.0	15.0	mg/Kg			01/20/22 15:36	1

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-3**

**Lab Sample ID: 880-10284-3**

Date Collected: 01/14/22 13:10

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:08	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>4850</b>		50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:08	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130				01/18/22 08:32	01/18/22 13:08	1
o-Terphenyl	90		70 - 130				01/18/22 08:32	01/18/22 13:08	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.1		4.96	0.851	mg/Kg			01/19/22 15:03	1

**Client Sample ID: SS-4**

**Lab Sample ID: 880-10284-4**

Date Collected: 01/14/22 13:15

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		01/18/22 07:57	01/18/22 12:42	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		01/18/22 07:57	01/18/22 12:42	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		01/18/22 07:57	01/18/22 12:42	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		01/18/22 07:57	01/18/22 12:42	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		01/18/22 07:57	01/18/22 12:42	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		01/18/22 07:57	01/18/22 12:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	157	S1+	70 - 130				01/18/22 07:57	01/18/22 12:42	1
1,4-Difluorobenzene (Surr)	105		70 - 130				01/18/22 07:57	01/18/22 12:42	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>2190</b>		50.0	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:29	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>2190</b>		50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:29	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130				01/18/22 08:32	01/18/22 13:29	1
o-Terphenyl	80		70 - 130				01/18/22 08:32	01/18/22 13:29	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-4**

**Lab Sample ID: 880-10284-4**

Date Collected: 01/14/22 13:15  
Date Received: 01/17/22 16:04  
Sample Depth: 2'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	716		5.00	0.858	mg/Kg			01/19/22 15:10	1

**Client Sample ID: SS-5**

**Lab Sample ID: 880-10284-5**

Date Collected: 01/14/22 13:20  
Date Received: 01/17/22 16:04  
Sample Depth: 1'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		01/18/22 07:57	01/18/22 13:02	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		01/18/22 07:57	01/18/22 13:02	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		01/18/22 07:57	01/18/22 13:02	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		01/18/22 07:57	01/18/22 13:02	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		01/18/22 07:57	01/18/22 13:02	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		01/18/22 07:57	01/18/22 13:02	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	114		70 - 130				01/18/22 07:57	01/18/22 13:02	1
1,4-Difluorobenzene (Surr)	106		70 - 130				01/18/22 07:57	01/18/22 13:02	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00400	0.00101	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>262</b>		49.9	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:51	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>262</b>		49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:51	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 13:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	65	S1-	70 - 130				01/18/22 08:32	01/18/22 13:51	1
o-Terphenyl	70		70 - 130				01/18/22 08:32	01/18/22 13:51	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800	F1	24.8	4.25	mg/Kg			01/19/22 13:58	5

## Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

Client Sample ID: SS-6

Lab Sample ID: 880-10284-6

Date Collected: 01/14/22 13:25

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00202	0.000389	mg/Kg		01/18/22 07:57	01/18/22 13:22	1
Toluene	<0.000461	U	0.00202	0.000461	mg/Kg		01/18/22 07:57	01/18/22 13:22	1
Ethylbenzene	<0.000571	U	0.00202	0.000571	mg/Kg		01/18/22 07:57	01/18/22 13:22	1
m-Xylene & p-Xylene	<0.00102	U	0.00404	0.00102	mg/Kg		01/18/22 07:57	01/18/22 13:22	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		01/18/22 07:57	01/18/22 13:22	1
Xylenes, Total	<0.00102	U	0.00404	0.00102	mg/Kg		01/18/22 07:57	01/18/22 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	01/18/22 07:57	01/18/22 13:22	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/18/22 07:57	01/18/22 13:22	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00404	0.00102	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1600		49.9	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:12	1
Diesel Range Organics (Over C10-C28)	1600		49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:12	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:12	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	71		70 - 130	01/18/22 08:32	01/18/22 14:12	1			
o-Terphenyl	81		70 - 130	01/18/22 08:32	01/18/22 14:12	1			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	820		4.99	0.857	mg/Kg			01/19/22 14:33	1

Client Sample ID: SS-7

Lab Sample ID: 880-10284-7

Date Collected: 01/14/22 13:45

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		01/18/22 07:57	01/18/22 13:43	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		01/18/22 07:57	01/18/22 13:43	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		01/18/22 07:57	01/18/22 13:43	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		01/18/22 07:57	01/18/22 13:43	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		01/18/22 07:57	01/18/22 13:43	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		01/18/22 07:57	01/18/22 13:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	01/18/22 07:57	01/18/22 13:43	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-7**

**Lab Sample ID: 880-10284-7**

Date Collected: 01/14/22 13:45

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	01/18/22 07:57	01/18/22 13:43	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.1		50.0	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:34	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>59.1</b>		50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:34	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:34	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	70		70 - 130	01/18/22 08:32	01/18/22 14:34	1			
o-Terphenyl	75		70 - 130	01/18/22 08:32	01/18/22 14:34	1			

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	339		24.9	4.27	mg/Kg			01/19/22 14:45	5

**Client Sample ID: SS-8**

**Lab Sample ID: 880-10284-8**

Date Collected: 01/14/22 13:50

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		01/18/22 07:57	01/18/22 14:03	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		01/18/22 07:57	01/18/22 14:03	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		01/18/22 07:57	01/18/22 14:03	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		01/18/22 07:57	01/18/22 14:03	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		01/18/22 07:57	01/18/22 14:03	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		01/18/22 07:57	01/18/22 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	01/18/22 07:57	01/18/22 14:03	1
1,4-Difluorobenzene (Surr)	86		70 - 130	01/18/22 07:57	01/18/22 14:03	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.3		49.9	15.0	mg/Kg			01/20/22 15:36	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-8**

**Lab Sample ID: 880-10284-8**

Date Collected: 01/14/22 13:50

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:55	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>51.3</b>		49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:55	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 14:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				01/18/22 08:32	01/18/22 14:55	1
o-Terphenyl	76		70 - 130				01/18/22 08:32	01/18/22 14:55	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	692		4.96	0.851	mg/Kg			01/19/22 21:29	1

**Client Sample ID: SS-9**

**Lab Sample ID: 880-10284-9**

Date Collected: 01/14/22 14:05

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		01/18/22 07:57	01/18/22 14:24	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		01/18/22 07:57	01/18/22 14:24	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		01/18/22 07:57	01/18/22 14:24	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		01/18/22 07:57	01/18/22 14:24	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		01/18/22 07:57	01/18/22 14:24	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		01/18/22 07:57	01/18/22 14:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130				01/18/22 07:57	01/18/22 14:24	1
1,4-Difluorobenzene (Surr)	88		70 - 130				01/18/22 07:57	01/18/22 14:24	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>4560</b>		49.9	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 15:16	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>4560</b>		49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 15:16	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130				01/18/22 08:32	01/18/22 15:16	1
o-Terphenyl	80		70 - 130				01/18/22 08:32	01/18/22 15:16	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-9**

**Lab Sample ID: 880-10284-9**

Date Collected: 01/14/22 14:05  
Date Received: 01/17/22 16:04  
Sample Depth: 0.5'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	725		25.0	4.29	mg/Kg			01/19/22 21:41	5

**Client Sample ID: SS-10**

**Lab Sample ID: 880-10284-10**

Date Collected: 01/14/22 14:10  
Date Received: 01/17/22 16:04  
Sample Depth: 1'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		01/18/22 07:57	01/18/22 14:44	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		01/18/22 07:57	01/18/22 14:44	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		01/18/22 07:57	01/18/22 14:44	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		01/18/22 07:57	01/18/22 14:44	1
<b>o-Xylene</b>	<b>0.000469</b>	<b>J</b>	0.00200	0.000345	mg/Kg		01/18/22 07:57	01/18/22 14:44	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		01/18/22 07:57	01/18/22 14:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	112		70 - 130				01/18/22 07:57	01/18/22 14:44	1
1,4-Difluorobenzene (Surr)	87		70 - 130				01/18/22 07:57	01/18/22 14:44	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			01/18/22 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>6220</b>		250	74.9	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<74.9	U	250	74.9	mg/Kg		01/18/22 08:32	01/18/22 15:38	5
<b>Diesel Range Organics (Over C10-C28)</b>	<b>6220</b>		250	74.9	mg/Kg		01/18/22 08:32	01/18/22 15:38	5
Oil Range Organics (Over C28-C36)	<74.9	U	250	74.9	mg/Kg		01/18/22 08:32	01/18/22 15:38	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	67	S1-	70 - 130				01/18/22 08:32	01/18/22 15:38	5
o-Terphenyl	88		70 - 130				01/18/22 08:32	01/18/22 15:38	5

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1640		24.7	4.24	mg/Kg			01/19/22 22:16	5

## Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

Client Sample ID: SS-11

Lab Sample ID: 880-10284-11

Date Collected: 01/14/22 13:30

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		01/18/22 07:57	01/18/22 16:34	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		01/18/22 07:57	01/18/22 16:34	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		01/18/22 07:57	01/18/22 16:34	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		01/18/22 07:57	01/18/22 16:34	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		01/18/22 07:57	01/18/22 16:34	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		01/18/22 07:57	01/18/22 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/18/22 07:57	01/18/22 16:34	1
1,4-Difluorobenzene (Surr)	85		70 - 130	01/18/22 07:57	01/18/22 16:34	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			01/20/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1830		50.0	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 16:20	1
Diesel Range Organics (Over C10-C28)	1830		50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 16:20	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 16:20	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	70		70 - 130	01/18/22 08:32	01/18/22 16:20	1			
o-Terphenyl	79		70 - 130	01/18/22 08:32	01/18/22 16:20	1			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2350		25.3	4.33	mg/Kg			01/19/22 22:28	5

Client Sample ID: SS-12

Lab Sample ID: 880-10284-12

Date Collected: 01/14/22 13:35

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		01/18/22 07:57	01/18/22 16:55	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		01/18/22 07:57	01/18/22 16:55	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		01/18/22 07:57	01/18/22 16:55	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		01/18/22 07:57	01/18/22 16:55	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		01/18/22 07:57	01/18/22 16:55	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		01/18/22 07:57	01/18/22 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	01/18/22 07:57	01/18/22 16:55	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-12**

**Lab Sample ID: 880-10284-12**

Date Collected: 01/14/22 13:35

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	113		70 - 130	01/18/22 07:57	01/18/22 16:55	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			01/20/22 16:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	138		49.9	15.0	mg/Kg			01/20/22 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 16:42	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>138</b>		49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 16:42	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/18/22 08:32	01/18/22 16:42	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	73		70 - 130	01/18/22 08:32	01/18/22 16:42	1			
o-Terphenyl	77		70 - 130	01/18/22 08:32	01/18/22 16:42	1			

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	359		4.99	0.857	mg/Kg			01/19/22 22:40	1

**Client Sample ID: SS-13**

**Lab Sample ID: 880-10284-13**

Date Collected: 01/14/22 13:55

Matrix: Solid

Date Received: 01/17/22 16:04

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00198	0.000381	mg/Kg		01/18/22 07:57	01/18/22 17:15	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		01/18/22 07:57	01/18/22 17:15	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		01/18/22 07:57	01/18/22 17:15	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		01/18/22 07:57	01/18/22 17:15	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		01/18/22 07:57	01/18/22 17:15	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		01/18/22 07:57	01/18/22 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/18/22 07:57	01/18/22 17:15	1
1,4-Difluorobenzene (Surr)	97		70 - 130	01/18/22 07:57	01/18/22 17:15	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00396	0.00100	mg/Kg			01/20/22 16:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	130		50.0	15.0	mg/Kg			01/20/22 15:36	1

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-13**  
 Date Collected: 01/14/22 13:55  
 Date Received: 01/17/22 16:04  
 Sample Depth: 1.5'

**Lab Sample ID: 880-10284-13**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 17:03	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>130</b>		50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 17:03	1
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130				01/18/22 08:32	01/18/22 17:03	1
o-Terphenyl	80		70 - 130				01/18/22 08:32	01/18/22 17:03	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1030</b>		5.01	0.860	mg/Kg			01/19/22 22:52	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Surrogate Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-10284-1	SS-1	114	99
880-10284-1 MS	SS-1	120	62 S1-
880-10284-1 MSD	SS-1	861 S1+	44 S1-
880-10284-2	SS-2	135 S1+	114
880-10284-3	SS-3	120	137 S1+
880-10284-4	SS-4	157 S1+	105
880-10284-5	SS-5	114	106
880-10284-6	SS-6	132 S1+	100
880-10284-7	SS-7	102	91
880-10284-8	SS-8	136 S1+	86
880-10284-9	SS-9	105	88
880-10284-10	SS-10	112	87
880-10284-11	SS-11	113	85
880-10284-12	SS-12	127	113
880-10284-13	SS-13	120	97
LCS 880-17100/1-A	Lab Control Sample	119	101
LCSD 880-17100/2-A	Lab Control Sample Dup	105	94
MB 880-17100/5-A	Method Blank	124	108

**Surrogate Legend**

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-10284-1	SS-1	68 S1-	71
880-10284-2	SS-2	77	93
880-10284-3	SS-3	73	90
880-10284-3 MS	SS-3	73	73
880-10284-3 MSD	SS-3	73	71
880-10284-4	SS-4	73	80
880-10284-5	SS-5	65 S1-	70
880-10284-6	SS-6	71	81
880-10284-7	SS-7	70	75
880-10284-8	SS-8	70	76
880-10284-9	SS-9	71	80
880-10284-10	SS-10	67 S1-	88
880-10284-11	SS-11	70	79
880-10284-12	SS-12	73	77
880-10284-13	SS-13	74	80
LCS 880-17103/2-A	Lab Control Sample	98	100
LCSD 880-17103/3-A	Lab Control Sample Dup	92	96
MB 880-17103/1-A	Method Blank	66 S1-	73

**Surrogate Legend**

1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

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### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

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

Lab Sample ID: MB 880-17100/5-A  
 Matrix: Solid  
 Analysis Batch: 17101

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 17100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		01/18/22 07:57	01/18/22 11:11	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		01/18/22 07:57	01/18/22 11:11	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		01/18/22 07:57	01/18/22 11:11	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		01/18/22 07:57	01/18/22 11:11	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		01/18/22 07:57	01/18/22 11:11	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		01/18/22 07:57	01/18/22 11:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	01/18/22 07:57	01/18/22 11:11	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/18/22 07:57	01/18/22 11:11	1

Lab Sample ID: LCS 880-17100/1-A  
 Matrix: Solid  
 Analysis Batch: 17101

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 17100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09320		mg/Kg		93	70 - 130
Toluene	0.100	0.09632		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09773		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.1954		mg/Kg		98	70 - 130
o-Xylene	0.100	0.09116		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-17100/2-A  
 Matrix: Solid  
 Analysis Batch: 17101

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 17100

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08415		mg/Kg		84	70 - 130	10	35
Toluene	0.100	0.08827		mg/Kg		88	70 - 130	9	35
Ethylbenzene	0.100	0.09442		mg/Kg		94	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1874		mg/Kg		94	70 - 130	4	35
o-Xylene	0.100	0.09148		mg/Kg		91	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-10284-1 MS  
 Matrix: Solid  
 Analysis Batch: 17101

Client Sample ID: SS-1  
 Prep Type: Total/NA  
 Prep Batch: 17100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000384	U F2 F1	0.100	0.04830	F1	mg/Kg		48	70 - 130
Toluene	<0.000455	U F1	0.100	0.03568	F1	mg/Kg		36	70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

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

Lab Sample ID: 880-10284-1 MS  
Matrix: Solid  
Analysis Batch: 17101

Client Sample ID: SS-1  
Prep Type: Total/NA  
Prep Batch: 17100

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.000564	U F2 F1	0.100	0.05727	F1	mg/Kg		57	70 - 130
m-Xylene & p-Xylene	<0.00101	U F2 F1	0.201	0.09501	F1	mg/Kg		47	70 - 130
o-Xylene	<0.000343	U F2 F1	0.100	0.02845	F1	mg/Kg		28	70 - 130
<b>MS MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	120		70 - 130						
1,4-Difluorobenzene (Surr)	62	S1-	70 - 130						

Lab Sample ID: 880-10284-1 MSD  
Matrix: Solid  
Analysis Batch: 17101

Client Sample ID: SS-1  
Prep Type: Total/NA  
Prep Batch: 17100

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	RPD	
	Result	Qualifier		Result	Qualifier						Limits
Benzene	<0.000384	U F2 F1	0.0994	0.07966	F2	mg/Kg		80	70 - 130	49	35
Toluene	<0.000455	U F1	0.0994	0.02620	F1	mg/Kg		26	70 - 130	31	35
Ethylbenzene	<0.000564	U F2 F1	0.0994	0.1631	F1 F2	mg/Kg		164	70 - 130	96	35
m-Xylene & p-Xylene	<0.00101	U F2 F1	0.199	0.6098	F1 F2	mg/Kg		307	70 - 130	146	35
o-Xylene	<0.000343	U F2 F1	0.0994	0.2832	F1 F2	mg/Kg		285	70 - 130	163	35
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
4-Bromofluorobenzene (Surr)	861	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	44	S1-	70 - 130								

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

Lab Sample ID: MB 880-17103/1-A  
Matrix: Solid  
Analysis Batch: 17089

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 17103

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
	Result	Qualifier									
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 10:38	1		
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 10:38	1		
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		01/18/22 08:32	01/18/22 10:38	1		
<b>MB MB</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	66	S1-	70 - 130						01/18/22 08:32	01/18/22 10:38	1
o-Terphenyl	73		70 - 130						01/18/22 08:32	01/18/22 10:38	1

Lab Sample ID: LCS 880-17103/2-A  
Matrix: Solid  
Analysis Batch: 17089

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 17103

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	988.6		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	1000	903.9		mg/Kg		90	70 - 130

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### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

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

**Lab Sample ID: LCS 880-17103/2-A**  
**Matrix: Solid**  
**Analysis Batch: 17089**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 17103**

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	98		70 - 130
o-Terphenyl	100		70 - 130

**Lab Sample ID: LCSD 880-17103/3-A**  
**Matrix: Solid**  
**Analysis Batch: 17089**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 17103**

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	985.1		mg/Kg		99	70 - 130	0	20	
Diesel Range Organics (Over C10-C28)	1000	919.8		mg/Kg		92	70 - 130	2	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	92		70 - 130
o-Terphenyl	96		70 - 130

**Lab Sample ID: 880-10284-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 17089**

**Client Sample ID: SS-3**  
**Prep Type: Total/NA**  
**Prep Batch: 17103**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	999	1007		mg/Kg		101	70 - 130			
Diesel Range Organics (Over C10-C28)	4850		999	859.6	4	mg/Kg		-399	70 - 130			

Surrogate	MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	73		70 - 130
o-Terphenyl	73		70 - 130

**Lab Sample ID: 880-10284-3 MSD**  
**Matrix: Solid**  
**Analysis Batch: 17089**

**Client Sample ID: SS-3**  
**Prep Type: Total/NA**  
**Prep Batch: 17103**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	998	1025		mg/Kg		103	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	4850		998	847.5	4	mg/Kg		-401	70 - 130	1	20	

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	73		70 - 130
o-Terphenyl	71		70 - 130

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

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

Lab Sample ID: MB 880-17134/1-A  
 Matrix: Solid  
 Analysis Batch: 17181

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			01/19/22 11:24	1

Lab Sample ID: LCS 880-17134/2-A  
 Matrix: Solid  
 Analysis Batch: 17181

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	267.5		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-17134/3-A  
 Matrix: Solid  
 Analysis Batch: 17181

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	266.2		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-10254-A-1-D MS  
 Matrix: Solid  
 Analysis Batch: 17181

Client Sample ID: Matrix Spike  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	56.5	F1	251	381.4	F1	mg/Kg		129	90 - 110

Lab Sample ID: 880-10254-A-1-E MSD  
 Matrix: Solid  
 Analysis Batch: 17181

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	56.5	F1	251	359.6	F1	mg/Kg		121	90 - 110	6	20

Lab Sample ID: 880-10282-A-1-B MS  
 Matrix: Solid  
 Analysis Batch: 17181

Client Sample ID: Matrix Spike  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16400		5000	21550		mg/Kg		103	90 - 110

Lab Sample ID: 880-10282-A-1-C MSD  
 Matrix: Solid  
 Analysis Batch: 17181

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16400		5000	21720		mg/Kg		107	90 - 110	1	20

Lab Sample ID: MB 880-17135/1-A  
 Matrix: Solid  
 Analysis Batch: 17284

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			01/19/22 13:22	1

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### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

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

**Lab Sample ID: LCS 880-17135/2-A**  
**Matrix: Solid**  
**Analysis Batch: 17284**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	252.5		mg/Kg		101	90 - 110

**Lab Sample ID: LCSD 880-17135/3-A**  
**Matrix: Solid**  
**Analysis Batch: 17284**

**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	257.7		mg/Kg		103	90 - 110	2	20

**Lab Sample ID: 880-10284-5 MS**  
**Matrix: Solid**  
**Analysis Batch: 17284**

**Client Sample ID: SS-5**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3800	F1	1240	6181	F1	mg/Kg		192	90 - 110

**Lab Sample ID: 880-10284-5 MSD**  
**Matrix: Solid**  
**Analysis Batch: 17284**

**Client Sample ID: SS-5**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3800	F1	1240	5584	F1	mg/Kg		144	90 - 110	10	20

### QC Association Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

#### GC VOA

##### Prep Batch: 17100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Total/NA	Solid	5035	
880-10284-2	SS-2	Total/NA	Solid	5035	
880-10284-3	SS-3	Total/NA	Solid	5035	
880-10284-4	SS-4	Total/NA	Solid	5035	
880-10284-5	SS-5	Total/NA	Solid	5035	
880-10284-6	SS-6	Total/NA	Solid	5035	
880-10284-7	SS-7	Total/NA	Solid	5035	
880-10284-8	SS-8	Total/NA	Solid	5035	
880-10284-9	SS-9	Total/NA	Solid	5035	
880-10284-10	SS-10	Total/NA	Solid	5035	
880-10284-11	SS-11	Total/NA	Solid	5035	
880-10284-12	SS-12	Total/NA	Solid	5035	
880-10284-13	SS-13	Total/NA	Solid	5035	
MB 880-17100/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17100/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17100/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10284-1 MS	SS-1	Total/NA	Solid	5035	
880-10284-1 MSD	SS-1	Total/NA	Solid	5035	

##### Analysis Batch: 17101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Total/NA	Solid	8021B	17100
880-10284-2	SS-2	Total/NA	Solid	8021B	17100
880-10284-3	SS-3	Total/NA	Solid	8021B	17100
880-10284-4	SS-4	Total/NA	Solid	8021B	17100
880-10284-5	SS-5	Total/NA	Solid	8021B	17100
880-10284-6	SS-6	Total/NA	Solid	8021B	17100
880-10284-7	SS-7	Total/NA	Solid	8021B	17100
880-10284-8	SS-8	Total/NA	Solid	8021B	17100
880-10284-9	SS-9	Total/NA	Solid	8021B	17100
880-10284-10	SS-10	Total/NA	Solid	8021B	17100
880-10284-11	SS-11	Total/NA	Solid	8021B	17100
880-10284-12	SS-12	Total/NA	Solid	8021B	17100
880-10284-13	SS-13	Total/NA	Solid	8021B	17100
MB 880-17100/5-A	Method Blank	Total/NA	Solid	8021B	17100
LCS 880-17100/1-A	Lab Control Sample	Total/NA	Solid	8021B	17100
LCSD 880-17100/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17100
880-10284-1 MS	SS-1	Total/NA	Solid	8021B	17100
880-10284-1 MSD	SS-1	Total/NA	Solid	8021B	17100

##### Analysis Batch: 17199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Total/NA	Solid	Total BTEX	
880-10284-2	SS-2	Total/NA	Solid	Total BTEX	
880-10284-3	SS-3	Total/NA	Solid	Total BTEX	
880-10284-4	SS-4	Total/NA	Solid	Total BTEX	
880-10284-5	SS-5	Total/NA	Solid	Total BTEX	
880-10284-6	SS-6	Total/NA	Solid	Total BTEX	
880-10284-7	SS-7	Total/NA	Solid	Total BTEX	
880-10284-8	SS-8	Total/NA	Solid	Total BTEX	
880-10284-9	SS-9	Total/NA	Solid	Total BTEX	

Eurofins Midland

## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

## GC VOA (Continued)

## Analysis Batch: 17199 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-10	SS-10	Total/NA	Solid	Total BTEX	

## Analysis Batch: 17403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-11	SS-11	Total/NA	Solid	Total BTEX	
880-10284-12	SS-12	Total/NA	Solid	Total BTEX	
880-10284-13	SS-13	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 17089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Total/NA	Solid	8015B NM	17103
880-10284-2	SS-2	Total/NA	Solid	8015B NM	17103
880-10284-3	SS-3	Total/NA	Solid	8015B NM	17103
880-10284-4	SS-4	Total/NA	Solid	8015B NM	17103
880-10284-5	SS-5	Total/NA	Solid	8015B NM	17103
880-10284-6	SS-6	Total/NA	Solid	8015B NM	17103
880-10284-7	SS-7	Total/NA	Solid	8015B NM	17103
880-10284-8	SS-8	Total/NA	Solid	8015B NM	17103
880-10284-9	SS-9	Total/NA	Solid	8015B NM	17103
880-10284-10	SS-10	Total/NA	Solid	8015B NM	17103
880-10284-11	SS-11	Total/NA	Solid	8015B NM	17103
880-10284-12	SS-12	Total/NA	Solid	8015B NM	17103
880-10284-13	SS-13	Total/NA	Solid	8015B NM	17103
MB 880-17103/1-A	Method Blank	Total/NA	Solid	8015B NM	17103
LCS 880-17103/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17103
LCSD 880-17103/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17103
880-10284-3 MS	SS-3	Total/NA	Solid	8015B NM	17103
880-10284-3 MSD	SS-3	Total/NA	Solid	8015B NM	17103

## Prep Batch: 17103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Total/NA	Solid	8015NM Prep	
880-10284-2	SS-2	Total/NA	Solid	8015NM Prep	
880-10284-3	SS-3	Total/NA	Solid	8015NM Prep	
880-10284-4	SS-4	Total/NA	Solid	8015NM Prep	
880-10284-5	SS-5	Total/NA	Solid	8015NM Prep	
880-10284-6	SS-6	Total/NA	Solid	8015NM Prep	
880-10284-7	SS-7	Total/NA	Solid	8015NM Prep	
880-10284-8	SS-8	Total/NA	Solid	8015NM Prep	
880-10284-9	SS-9	Total/NA	Solid	8015NM Prep	
880-10284-10	SS-10	Total/NA	Solid	8015NM Prep	
880-10284-11	SS-11	Total/NA	Solid	8015NM Prep	
880-10284-12	SS-12	Total/NA	Solid	8015NM Prep	
880-10284-13	SS-13	Total/NA	Solid	8015NM Prep	
MB 880-17103/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17103/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17103/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10284-3 MS	SS-3	Total/NA	Solid	8015NM Prep	
880-10284-3 MSD	SS-3	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

## GC Semi VOA

## Analysis Batch: 17383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Total/NA	Solid	8015 NM	
880-10284-2	SS-2	Total/NA	Solid	8015 NM	
880-10284-3	SS-3	Total/NA	Solid	8015 NM	
880-10284-4	SS-4	Total/NA	Solid	8015 NM	
880-10284-5	SS-5	Total/NA	Solid	8015 NM	
880-10284-6	SS-6	Total/NA	Solid	8015 NM	
880-10284-7	SS-7	Total/NA	Solid	8015 NM	
880-10284-8	SS-8	Total/NA	Solid	8015 NM	
880-10284-9	SS-9	Total/NA	Solid	8015 NM	
880-10284-10	SS-10	Total/NA	Solid	8015 NM	
880-10284-11	SS-11	Total/NA	Solid	8015 NM	
880-10284-12	SS-12	Total/NA	Solid	8015 NM	
880-10284-13	SS-13	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 17134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Soluble	Solid	DI Leach	
880-10284-2	SS-2	Soluble	Solid	DI Leach	
880-10284-3	SS-3	Soluble	Solid	DI Leach	
880-10284-4	SS-4	Soluble	Solid	DI Leach	
MB 880-17134/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17134/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17134/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10254-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10254-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-10282-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10282-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Leach Batch: 17135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-5	SS-5	Soluble	Solid	DI Leach	
880-10284-6	SS-6	Soluble	Solid	DI Leach	
880-10284-7	SS-7	Soluble	Solid	DI Leach	
880-10284-8	SS-8	Soluble	Solid	DI Leach	
880-10284-9	SS-9	Soluble	Solid	DI Leach	
880-10284-10	SS-10	Soluble	Solid	DI Leach	
880-10284-11	SS-11	Soluble	Solid	DI Leach	
880-10284-12	SS-12	Soluble	Solid	DI Leach	
880-10284-13	SS-13	Soluble	Solid	DI Leach	
MB 880-17135/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17135/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17135/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10284-5 MS	SS-5	Soluble	Solid	DI Leach	
880-10284-5 MSD	SS-5	Soluble	Solid	DI Leach	

## Analysis Batch: 17181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-1	SS-1	Soluble	Solid	300.0	17134
880-10284-2	SS-2	Soluble	Solid	300.0	17134

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-10284-1  
SDG: Lea Co., NM

## HPLC/IC (Continued)

## Analysis Batch: 17181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-3	SS-3	Soluble	Solid	300.0	17134
880-10284-4	SS-4	Soluble	Solid	300.0	17134
MB 880-17134/1-A	Method Blank	Soluble	Solid	300.0	17134
LCS 880-17134/2-A	Lab Control Sample	Soluble	Solid	300.0	17134
LCSD 880-17134/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17134
880-10254-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	17134
880-10254-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17134
880-10282-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	17134
880-10282-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17134

## Analysis Batch: 17284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10284-5	SS-5	Soluble	Solid	300.0	17135
880-10284-6	SS-6	Soluble	Solid	300.0	17135
880-10284-7	SS-7	Soluble	Solid	300.0	17135
880-10284-8	SS-8	Soluble	Solid	300.0	17135
880-10284-9	SS-9	Soluble	Solid	300.0	17135
880-10284-10	SS-10	Soluble	Solid	300.0	17135
880-10284-11	SS-11	Soluble	Solid	300.0	17135
880-10284-12	SS-12	Soluble	Solid	300.0	17135
880-10284-13	SS-13	Soluble	Solid	300.0	17135
MB 880-17135/1-A	Method Blank	Soluble	Solid	300.0	17135
LCS 880-17135/2-A	Lab Control Sample	Soluble	Solid	300.0	17135
LCSD 880-17135/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17135
880-10284-5 MS	SS-5	Soluble	Solid	300.0	17135
880-10284-5 MSD	SS-5	Soluble	Solid	300.0	17135

### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-1**

**Lab Sample ID: 880-10284-1**

Date Collected: 01/14/22 12:55

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 11:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 11:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	17134	01/18/22 11:23	CH	XEN MID
Soluble	Analysis	300.0		5			17181	01/19/22 14:47	CH	XEN MID

**Client Sample ID: SS-2**

**Lab Sample ID: 880-10284-2**

Date Collected: 01/14/22 13:00

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 12:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 12:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	17134	01/18/22 11:23	CH	XEN MID
Soluble	Analysis	300.0		1			17181	01/19/22 14:55	CH	XEN MID

**Client Sample ID: SS-3**

**Lab Sample ID: 880-10284-3**

Date Collected: 01/14/22 13:10

Matrix: Solid

Date Received: 01/17/22 16:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 12:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 13:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	17134	01/18/22 11:23	CH	XEN MID
Soluble	Analysis	300.0		1			17181	01/19/22 15:03	CH	XEN MID

**Client Sample ID: SS-4**

**Lab Sample ID: 880-10284-4**

Date Collected: 01/14/22 13:15

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 12:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID

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### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-4**

**Lab Sample ID: 880-10284-4**

Date Collected: 01/14/22 13:15

Matrix: Solid

Date Received: 01/17/22 16:04

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			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 13:29	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	17134	01/18/22 11:23	CH	XEN MID
Soluble	Analysis	300.0		1			17181	01/19/22 15:10	CH	XEN MID

**Client Sample ID: SS-5**

**Lab Sample ID: 880-10284-5**

Date Collected: 01/14/22 13:20

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 13:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 13:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		5			17284	01/19/22 13:58	CH	XEN MID

**Client Sample ID: SS-6**

**Lab Sample ID: 880-10284-6**

Date Collected: 01/14/22 13:25

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 13:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 14:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		1			17284	01/19/22 14:33	CH	XEN MID

**Client Sample ID: SS-7**

**Lab Sample ID: 880-10284-7**

Date Collected: 01/14/22 13:45

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 13:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 14:34	AJ	XEN MID

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### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

**Client Sample ID: SS-7**

**Lab Sample ID: 880-10284-7**

Date Collected: 01/14/22 13:45

Matrix: Solid

Date Received: 01/17/22 16:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		5			17284	01/19/22 14:45	CH	XEN MID

**Client Sample ID: SS-8**

**Lab Sample ID: 880-10284-8**

Date Collected: 01/14/22 13:50

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 14:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 14:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		1			17284	01/19/22 21:29	CH	XEN MID

**Client Sample ID: SS-9**

**Lab Sample ID: 880-10284-9**

Date Collected: 01/14/22 14:05

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 14:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 15:16	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		5			17284	01/19/22 21:41	CH	XEN MID

**Client Sample ID: SS-10**

**Lab Sample ID: 880-10284-10**

Date Collected: 01/14/22 14:10

Matrix: Solid

Date Received: 01/17/22 16:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 14:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17199	01/18/22 15:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		5			17089	01/18/22 15:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.06 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		5			17284	01/19/22 22:16	CH	XEN MID

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### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-11**

**Lab Sample ID: 880-10284-11**

Date Collected: 01/14/22 13:30

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 16:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17403	01/20/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 16:20	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		5			17284	01/19/22 22:28	CH	XEN MID

**Client Sample ID: SS-12**

**Lab Sample ID: 880-10284-12**

Date Collected: 01/14/22 13:35

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 16:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17403	01/20/22 16:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 16:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		1			17284	01/19/22 22:40	CH	XEN MID

**Client Sample ID: SS-13**

**Lab Sample ID: 880-10284-13**

Date Collected: 01/14/22 13:55

Matrix: Solid

Date Received: 01/17/22 16:04

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	17100	01/18/22 07:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17101	01/18/22 17:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			17403	01/20/22 16:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			17383	01/20/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	17103	01/18/22 08:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1			17089	01/18/22 17:03	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	17135	01/18/22 11:25	CH	XEN MID
Soluble	Analysis	300.0		1			17284	01/19/22 22:52	CH	XEN MID

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
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	T104704400-21-22	06-30-22

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

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### Method Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-10284-1  
 SDG: Lea Co., NM

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

**Protocol References:**

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- 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:**

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



### Sample Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-10284-1  
SDG: Lea Co., NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-10284-1	SS-1	Solid	01/14/22 12:55	01/17/22 16:04	1'
880-10284-2	SS-2	Solid	01/14/22 13:00	01/17/22 16:04	1'
880-10284-3	SS-3	Solid	01/14/22 13:10	01/17/22 16:04	2'
880-10284-4	SS-4	Solid	01/14/22 13:15	01/17/22 16:04	2'
880-10284-5	SS-5	Solid	01/14/22 13:20	01/17/22 16:04	1'
880-10284-6	SS-6	Solid	01/14/22 13:25	01/17/22 16:04	1'
880-10284-7	SS-7	Solid	01/14/22 13:45	01/17/22 16:04	1.5'
880-10284-8	SS-8	Solid	01/14/22 13:50	01/17/22 16:04	1.5'
880-10284-9	SS-9	Solid	01/14/22 14:05	01/17/22 16:04	0.5'
880-10284-10	SS-10	Solid	01/14/22 14:10	01/17/22 16:04	1'
880-10284-11	SS-11	Solid	01/14/22 13:30	01/17/22 16:04	1'
880-10284-12	SS-12	Solid	01/14/22 13:35	01/17/22 16:04	1'
880-10284-13	SS-13	Solid	01/14/22 13:55	01/17/22 16:04	1.5'

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Environment Testing  
Xenco

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

Chain of Custody

Project Manager:	Liddy Train	Bill to: (if different)	Nicole Lawrence
Company Name:	Brain Environmental	Company Name:	BEP
Address:	2925 E. 17th St.	Address:	11757 Katy Fwy, Ste. 475
City, State ZIP:	Dallas, TX 79761	City, State ZIP:	Houston, TX 77079
Phone:	(575) 441-7344	Email:	Liddy.Train@gmail.com

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

SAMPLE RECEIPT	Temp Blank: Yes/No	Wet Ice: Yes/No	Thermometer ID:	Correction Factor	Temperature Reading	Corrected Temperature	Parameters	
							TPH	BTEX
55-1	Yes	No	1188	10	410	4.7	TPH 8015 M	
55-2	Yes	No					BTEX	
55-3	Yes	No					Chlorides	
55-4	Yes	No						
55-5	Yes	No						
55-6	Yes	No						
55-7	Yes	No						
55-8	Yes	No						
55-9	Yes	No						
55-10	Yes	No						

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes
55-1	S	1/4/22	1256	1'	2	1		None NO Cool Cool HCL, HC H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> , HP 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
55-2			1300	1'				
55-3			1310	2'				
55-4			1315	2'				
55-5			1320	1'				
55-6			1325	1'				
55-7			1345	1.5'				
55-8			1350	1.5'				
55-9			1405	0.5'				
55-10			1410	1'				

Total 2007/6010 200.8 / 6020: 8RCRA 13PPM Texas IT AI 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

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>Liddy Train</i>	<i>Nicole Lawrence</i>	1-17-22 16:04			

Revised Date: 08/25/2020 Rev. 20202



880-10284 Chain of Custody

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Environment Testing  
Xenco

Chain of Custody

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El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 10284

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Project Manager:	Lindy Cain	Bill to: (if different)	Nicole Larnell
Company Name:	Lain Environmental	Company Name:	BXP
Address:	2925 E. 17th St.	Address:	11757 Katy Fwy, Ste 475
City, State Zip:	Albessa, TX 79701	City, State Zip:	Houston, TX 77079
Phone:	(575) 441-2244	Email:	Lindy.Cain@gmail.com

Program	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/>	RRC <input type="checkbox"/>	Superfund <input type="checkbox"/>
State of Project:	NM				
Reporting Level	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 Name:	BT A # 4	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
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:	Lindy Cain	Temp Blank:	Yes (No) <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet/No:	<input checked="" type="checkbox"/> No <input type="checkbox"/>
PO #		Thermometer ID:		IPES	
SAMPLE RECEIPT		Cooler Custody Seals:	Yes No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Correction Factor:	.10
Samples Received Intact:		Sample Custody Seals:	Yes No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Temperature Reading	46
Cooler Custody Seals:		Total Containers:		Corrected Temperature:	47

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	
							TPH	BTEX Chlorides
55-11	S	1/14/20	1330	1'	2	1		
55-12	S	1/14/20	1335	1'	2	1		
55-13	S	1/14/20	1355	1.5'	2	1		

Total 2007 / 6010 2008 / 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 / SPLD 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
<i>Lindy Cain</i>	<i>[Signature]</i>	1-17-22 16:04			

### Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-10284-1

SDG Number: Lea Co., NM

**Login Number: 10284**

**List Number: 1**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

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Environment Testing  
America

## ANALYTICAL REPORT

Eurofins Midland  
1211 W. Florida Ave  
Midland, TX 79701  
Tel: (432)704-5440

Laboratory Job ID: 880-12022-1  
Laboratory Sample Delivery Group: Lea Co. NM  
Client Project/Site: BT A #4

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

Attn: Cindy Crain

Authorized for release by:  
3/9/2022 4:57:39 PM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Client: Crain Environmental  
Project/Site: BT A #4

Laboratory Job ID: 880-12022-1  
SDG: Lea Co. NM

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## Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Job ID: 880-12022-1**

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**  
**880-12022-1**

**Receipt**

The samples were received on 3/3/2022 2:50 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 3.6°C

**GC VOA**

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

**GC Semi VOA**

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

**HPLC/IC**

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: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-1**

**Lab Sample ID: 880-12022-1**

Date Collected: 03/02/22 12:05

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000613	J	0.00198	0.000381	mg/Kg		03/07/22 07:45	03/07/22 16:54	1
Toluene	0.00110	J	0.00198	0.000451	mg/Kg		03/07/22 07:45	03/07/22 16:54	1
Ethylbenzene	0.00155	J	0.00198	0.000559	mg/Kg		03/07/22 07:45	03/07/22 16:54	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		03/07/22 07:45	03/07/22 16:54	1
o-Xylene	0.000454	J	0.00198	0.000341	mg/Kg		03/07/22 07:45	03/07/22 16:54	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		03/07/22 07:45	03/07/22 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/07/22 07:45	03/07/22 16:54	1
1,4-Difluorobenzene (Surr)	93		70 - 130	03/07/22 07:45	03/07/22 16:54	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00372	J	0.00396	0.00100	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2470		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		03/04/22 09:26	03/06/22 23:54	1
Diesel Range Organics (Over C10-C28)	2010		50.0	15.0	mg/Kg		03/04/22 09:26	03/06/22 23:54	1
Oil Range Organics (Over C28-C36)	459	B	50.0	15.0	mg/Kg		03/04/22 09:26	03/06/22 23:54	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	92		70 - 130	03/04/22 09:26	03/06/22 23:54	1			
o-Terphenyl	90		70 - 130	03/04/22 09:26	03/06/22 23:54	1			

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2070		24.9	4.27	mg/Kg			03/07/22 20:20	5

**Client Sample ID: SW-2**

**Lab Sample ID: 880-12022-2**

Date Collected: 03/02/22 12:10

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		03/07/22 07:45	03/07/22 17:15	1
Toluene	0.00141	J	0.00199	0.000454	mg/Kg		03/07/22 07:45	03/07/22 17:15	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/07/22 07:45	03/07/22 17:15	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 07:45	03/07/22 17:15	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/07/22 07:45	03/07/22 17:15	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 07:45	03/07/22 17:15	1

Eurofins Midland

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-2**

**Lab Sample ID: 880-12022-2**

Date Collected: 03/02/22 12:10

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	03/07/22 07:45	03/07/22 17:15	1
1,4-Difluorobenzene (Surr)	95		70 - 130	03/07/22 07:45	03/07/22 17:15	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.00141</b>	<b>J</b>	0.00398	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>409</b>		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:13	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>346</b>		50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:13	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>62.6</b>	<b>B</b>	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	03/04/22 09:26	03/07/22 00:13	1
o-Terphenyl	90		70 - 130	03/04/22 09:26	03/07/22 00:13	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>25.4</b>		4.96	0.851	mg/Kg			03/07/22 20:29	1

**Client Sample ID: SW-3**

**Lab Sample ID: 880-12022-3**

Date Collected: 03/02/22 12:15

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>0.000404</b>	<b>J</b>	0.00199	0.000383	mg/Kg		03/07/22 07:45	03/07/22 17:35	1
<b>Toluene</b>	<b>0.000933</b>	<b>J</b>	0.00199	0.000454	mg/Kg		03/07/22 07:45	03/07/22 17:35	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/07/22 07:45	03/07/22 17:35	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 07:45	03/07/22 17:35	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/07/22 07:45	03/07/22 17:35	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 07:45	03/07/22 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/07/22 07:45	03/07/22 17:35	1
1,4-Difluorobenzene (Surr)	93		70 - 130	03/07/22 07:45	03/07/22 17:35	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.00134</b>	<b>J</b>	0.00398	0.00101	mg/Kg			03/08/22 13:25	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-3**

**Lab Sample ID: 880-12022-3**

Date Collected: 03/02/22 12:15

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	928		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:34	1
Diesel Range Organics (Over C10-C28)	746		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:34	1
Oil Range Organics (Over C28-C36)	182	B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				03/04/22 09:26	03/07/22 00:34	1
o-Terphenyl	83		70 - 130				03/04/22 09:26	03/07/22 00:34	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.9		4.95	0.850	mg/Kg			03/07/22 20:38	1

**Client Sample ID: SW-4**

**Lab Sample ID: 880-12022-4**

Date Collected: 03/02/22 12:20

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000732	J	0.00202	0.000388	mg/Kg		03/07/22 07:45	03/07/22 17:56	1
Toluene	0.00160	J	0.00202	0.000460	mg/Kg		03/07/22 07:45	03/07/22 17:56	1
Ethylbenzene	0.00112	J	0.00202	0.000570	mg/Kg		03/07/22 07:45	03/07/22 17:56	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		03/07/22 07:45	03/07/22 17:56	1
o-Xylene	0.000459	J	0.00202	0.000347	mg/Kg		03/07/22 07:45	03/07/22 17:56	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		03/07/22 07:45	03/07/22 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130				03/07/22 07:45	03/07/22 17:56	1
1,4-Difluorobenzene (Surr)	93		70 - 130				03/07/22 07:45	03/07/22 17:56	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00391	J	0.00403	0.00102	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	142		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.8	J B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:55	1
Diesel Range Organics (Over C10-C28)	55.4		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:55	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-4**

**Lab Sample ID: 880-12022-4**

Date Collected: 03/02/22 12:20

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Oil Range Organics (Over C28-C36)</b>	<b>68.4</b>	<b>B</b>	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 00:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	88		70 - 130				03/04/22 09:26	03/07/22 00:55	1
o-Terphenyl	81		70 - 130				03/04/22 09:26	03/07/22 00:55	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>21.4</b>		5.04	0.865	mg/Kg			03/07/22 20:47	1

**Client Sample ID: SW-5**

**Lab Sample ID: 880-12022-5**

Date Collected: 03/02/22 12:25

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		03/07/22 07:45	03/07/22 18:16	1
<b>Toluene</b>	<b>0.000721</b>	<b>J</b>	0.00199	0.000453	mg/Kg		03/07/22 07:45	03/07/22 18:16	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		03/07/22 07:45	03/07/22 18:16	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		03/07/22 07:45	03/07/22 18:16	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		03/07/22 07:45	03/07/22 18:16	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		03/07/22 07:45	03/07/22 18:16	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	105		70 - 130				03/07/22 07:45	03/07/22 18:16	1
1,4-Difluorobenzene (Surr)	95		70 - 130				03/07/22 07:45	03/07/22 18:16	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>482</b>		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>19.5</b>	<b>J B</b>	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 01:14	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>402</b>		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 01:14	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>60.2</b>	<b>B</b>	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 01:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	92		70 - 130				03/04/22 09:26	03/07/22 01:14	1
o-Terphenyl	82		70 - 130				03/04/22 09:26	03/07/22 01:14	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-5**

**Lab Sample ID: 880-12022-5**

Date Collected: 03/02/22 12:25  
Date Received: 03/03/22 14:50  
Sample Depth: 2'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.0		5.00	0.858	mg/Kg			03/07/22 20:56	1

**Client Sample ID: SW-6**

**Lab Sample ID: 880-12022-6**

Date Collected: 03/02/22 12:30  
Date Received: 03/03/22 14:50  
Sample Depth: 1'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		03/07/22 07:45	03/07/22 18:37	1
<b>Toluene</b>	<b>0.000779</b>	<b>J</b>	0.00200	0.000456	mg/Kg		03/07/22 07:45	03/07/22 18:37	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/07/22 07:45	03/07/22 18:37	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/07/22 07:45	03/07/22 18:37	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/07/22 07:45	03/07/22 18:37	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/07/22 07:45	03/07/22 18:37	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	105		70 - 130				03/07/22 07:45	03/07/22 18:37	1
1,4-Difluorobenzene (Surr)	93		70 - 130				03/07/22 07:45	03/07/22 18:37	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00400	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>1010</b>		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 01:34	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>814</b>		50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 01:34	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>195</b>	<b>B</b>	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 01:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	106		70 - 130				03/04/22 09:26	03/07/22 01:34	1
o-Terphenyl	105		70 - 130				03/04/22 09:26	03/07/22 01:34	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5210		50.0	8.58	mg/Kg			03/07/22 21:05	10

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-7**

**Lab Sample ID: 880-12022-7**

Date Collected: 03/02/22 12:35

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		03/07/22 07:45	03/07/22 18:58	1
<b>Toluene</b>	<b>0.000548</b>	<b>J</b>	0.00200	0.000455	mg/Kg		03/07/22 07:45	03/07/22 18:58	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		03/07/22 07:45	03/07/22 18:58	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		03/07/22 07:45	03/07/22 18:58	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		03/07/22 07:45	03/07/22 18:58	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		03/07/22 07:45	03/07/22 18:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	106		70 - 130				03/07/22 07:45	03/07/22 18:58	1
1,4-Difluorobenzene (Surr)	101		70 - 130				03/07/22 07:45	03/07/22 18:58	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>1480</b>		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>18.9</b>	<b>J B</b>	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:14	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>1170</b>		50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:14	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>295</b>	<b>B</b>	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	92		70 - 130				03/04/22 09:26	03/07/22 02:14	1
o-Terphenyl	87		70 - 130				03/04/22 09:26	03/07/22 02:14	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>687</b>		4.98	0.855	mg/Kg			03/09/22 01:44	1

**Client Sample ID: SW-8**

**Lab Sample ID: 880-12022-8**

Date Collected: 03/02/22 12:40

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		03/07/22 07:45	03/07/22 19:18	1
<b>Toluene</b>	<b>0.000680</b>	<b>J</b>	0.00201	0.000458	mg/Kg		03/07/22 07:45	03/07/22 19:18	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		03/07/22 07:45	03/07/22 19:18	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		03/07/22 07:45	03/07/22 19:18	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		03/07/22 07:45	03/07/22 19:18	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		03/07/22 07:45	03/07/22 19:18	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-8**

**Lab Sample ID: 880-12022-8**

Date Collected: 03/02/22 12:40

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/07/22 07:45	03/07/22 19:18	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/07/22 07:45	03/07/22 19:18	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2860		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16.6	J B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:34	1
Diesel Range Organics (Over C10-C28)	2280		50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:34	1
Oil Range Organics (Over C28-C36)	562	B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	03/04/22 09:26	03/07/22 02:34	1
o-Terphenyl	103		70 - 130	03/04/22 09:26	03/07/22 02:34	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4830		50.0	8.58	mg/Kg			03/09/22 02:01	10

**Client Sample ID: SW-9**

**Lab Sample ID: 880-12022-9**

Date Collected: 03/02/22 12:45

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		03/07/22 07:45	03/07/22 19:39	1
Toluene	0.000747	J	0.00199	0.000454	mg/Kg		03/07/22 07:45	03/07/22 19:39	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/07/22 07:45	03/07/22 19:39	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 07:45	03/07/22 19:39	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/07/22 07:45	03/07/22 19:39	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 07:45	03/07/22 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/07/22 07:45	03/07/22 19:39	1
1,4-Difluorobenzene (Surr)	96		70 - 130	03/07/22 07:45	03/07/22 19:39	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			03/08/22 13:25	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-9**

**Lab Sample ID: 880-12022-9**

Date Collected: 03/02/22 12:45

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5140		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:54	1
Diesel Range Organics (Over C10-C28)	4310		50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:54	1
Oil Range Organics (Over C28-C36)	826	B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 02:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				03/04/22 09:26	03/07/22 02:54	1
o-Terphenyl	108		70 - 130				03/04/22 09:26	03/07/22 02:54	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4630		49.9	8.57	mg/Kg			03/09/22 02:07	10

**Client Sample ID: SW-10**

**Lab Sample ID: 880-12022-10**

Date Collected: 03/02/22 12:50

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		03/07/22 07:45	03/07/22 19:59	1
Toluene	0.000517	J	0.00200	0.000457	mg/Kg		03/07/22 07:45	03/07/22 19:59	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		03/07/22 07:45	03/07/22 19:59	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		03/07/22 07:45	03/07/22 19:59	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		03/07/22 07:45	03/07/22 19:59	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		03/07/22 07:45	03/07/22 19:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				03/07/22 07:45	03/07/22 19:59	1
1,4-Difluorobenzene (Surr)	99		70 - 130				03/07/22 07:45	03/07/22 19:59	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	118		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.1	J B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:14	1
Diesel Range Organics (Over C10-C28)	19.2	J	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:14	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-10**

**Lab Sample ID: 880-12022-10**

Date Collected: 03/02/22 12:50

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Oil Range Organics (Over C28-C36)</b>	<b>79.1</b>	<b>B</b>	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	94		70 - 130				03/04/22 09:26	03/07/22 03:14	1
o-Terphenyl	85		70 - 130				03/04/22 09:26	03/07/22 03:14	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>217</b>		5.00	0.858	mg/Kg			03/09/22 02:13	1

**Client Sample ID: SW-11**

**Lab Sample ID: 880-12022-11**

Date Collected: 03/02/22 13:00

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		03/07/22 08:00	03/07/22 19:53	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		03/07/22 08:00	03/07/22 19:53	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		03/07/22 08:00	03/07/22 19:53	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		03/07/22 08:00	03/07/22 19:53	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		03/07/22 08:00	03/07/22 19:53	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		03/07/22 08:00	03/07/22 19:53	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	81		70 - 130				03/07/22 08:00	03/07/22 19:53	1
1,4-Difluorobenzene (Surr)	125		70 - 130				03/07/22 08:00	03/07/22 19:53	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>1350</b>		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:34	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>1110</b>		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:34	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>238 B</b>		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	107		70 - 130				03/04/22 09:26	03/07/22 03:34	1
o-Terphenyl	99		70 - 130				03/04/22 09:26	03/07/22 03:34	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-11**  
Date Collected: 03/02/22 13:00  
Date Received: 03/03/22 14:50  
Sample Depth: 1.5'

**Lab Sample ID: 880-12022-11**  
Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	542		25.3	4.33	mg/Kg			03/09/22 02:19	5

**Client Sample ID: SW-12**  
Date Collected: 03/02/22 13:05  
Date Received: 03/03/22 14:50  
Sample Depth: 1.5'

**Lab Sample ID: 880-12022-12**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		03/07/22 08:00	03/07/22 20:20	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		03/07/22 08:00	03/07/22 20:20	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		03/07/22 08:00	03/07/22 20:20	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		03/07/22 08:00	03/07/22 20:20	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		03/07/22 08:00	03/07/22 20:20	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		03/07/22 08:00	03/07/22 20:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	144	S1+	70 - 130				03/07/22 08:00	03/07/22 20:20	1
1,4-Difluorobenzene (Surr)	91		70 - 130				03/07/22 08:00	03/07/22 20:20	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	188		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16.0	J B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:54	1
Diesel Range Organics (Over C10-C28)	123		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:54	1
Oil Range Organics (Over C28-C36)	49.0	J B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 03:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				03/04/22 09:26	03/07/22 03:54	1
o-Terphenyl	82		70 - 130				03/04/22 09:26	03/07/22 03:54	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	428		4.97	0.853	mg/Kg			03/09/22 02:37	1

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-13**

**Lab Sample ID: 880-12022-13**

Date Collected: 03/02/22 13:10

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		03/07/22 08:00	03/07/22 20:47	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		03/07/22 08:00	03/07/22 20:47	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		03/07/22 08:00	03/07/22 20:47	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		03/07/22 08:00	03/07/22 20:47	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		03/07/22 08:00	03/07/22 20:47	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		03/07/22 08:00	03/07/22 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		70 - 130	03/07/22 08:00	03/07/22 20:47	1
1,4-Difluorobenzene (Surr)	113		70 - 130	03/07/22 08:00	03/07/22 20:47	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	89.2		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	15.9	J B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:14	1
Diesel Range Organics (Over C10-C28)	25.6	J	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:14	1
Oil Range Organics (Over C28-C36)	47.7	J B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	03/04/22 09:26	03/07/22 04:14	1
o-Terphenyl	88		70 - 130	03/04/22 09:26	03/07/22 04:14	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4250		49.5	8.50	mg/Kg			03/09/22 02:43	10

**Client Sample ID: SW-14**

**Lab Sample ID: 880-12022-14**

Date Collected: 03/02/22 13:15

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		03/07/22 08:00	03/07/22 21:14	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		03/07/22 08:00	03/07/22 21:14	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/07/22 08:00	03/07/22 21:14	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 08:00	03/07/22 21:14	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/07/22 08:00	03/07/22 21:14	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/07/22 08:00	03/07/22 21:14	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-14**

**Lab Sample ID: 880-12022-14**

Date Collected: 03/02/22 13:15

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	03/07/22 08:00	03/07/22 21:14	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/07/22 08:00	03/07/22 21:14	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.7		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	24.8	J B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:34	1
Diesel Range Organics (Over C10-C28)	15.6	J	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:34	1
Oil Range Organics (Over C28-C36)	36.3	J B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	03/04/22 09:26	03/07/22 04:34	1
o-Terphenyl	106		70 - 130	03/04/22 09:26	03/07/22 04:34	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2450		24.8	4.26	mg/Kg			03/09/22 02:49	5

**Client Sample ID: SW-15**

**Lab Sample ID: 880-12022-15**

Date Collected: 03/02/22 13:20

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		03/07/22 08:00	03/07/22 21:42	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		03/07/22 08:00	03/07/22 21:42	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		03/07/22 08:00	03/07/22 21:42	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		03/07/22 08:00	03/07/22 21:42	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		03/07/22 08:00	03/07/22 21:42	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		03/07/22 08:00	03/07/22 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	03/07/22 08:00	03/07/22 21:42	1
1,4-Difluorobenzene (Surr)	121		70 - 130	03/07/22 08:00	03/07/22 21:42	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			03/08/22 13:25	1

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

**Client Sample ID: SW-15**

**Lab Sample ID: 880-12022-15**

Date Collected: 03/02/22 13:20

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	703		50.0	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16.1	J B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:54	1
Diesel Range Organics (Over C10-C28)	420		50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:54	1
Oil Range Organics (Over C28-C36)	267	B	50.0	15.0	mg/Kg		03/04/22 09:26	03/07/22 04:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				03/04/22 09:26	03/07/22 04:54	1
o-Terphenyl	83		70 - 130				03/04/22 09:26	03/07/22 04:54	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	218		5.02	0.862	mg/Kg			03/09/22 08:30	1

**Client Sample ID: SW-16**

**Lab Sample ID: 880-12022-16**

Date Collected: 03/02/22 13:25

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		03/07/22 08:00	03/07/22 22:09	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		03/07/22 08:00	03/07/22 22:09	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		03/07/22 08:00	03/07/22 22:09	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		03/07/22 08:00	03/07/22 22:09	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		03/07/22 08:00	03/07/22 22:09	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		03/07/22 08:00	03/07/22 22:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130				03/07/22 08:00	03/07/22 22:09	1
1,4-Difluorobenzene (Surr)	114		70 - 130				03/07/22 08:00	03/07/22 22:09	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			03/08/22 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	364		49.9	15.0	mg/Kg			03/07/22 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	18.1	J B	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 05:14	1
Diesel Range Organics (Over C10-C28)	275		49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 05:14	1

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

**Client Sample ID: SW-16**

**Lab Sample ID: 880-12022-16**

Date Collected: 03/02/22 13:25

Matrix: Solid

Date Received: 03/03/22 14:50

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Oil Range Organics (Over C28-C36)</b>	<b>70.7</b>	<b>B</b>	49.9	15.0	mg/Kg		03/04/22 09:26	03/07/22 05:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	112		70 - 130				03/04/22 09:26	03/07/22 05:14	1
o-Terphenyl	102		70 - 130				03/04/22 09:26	03/07/22 05:14	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>61.2</b>		5.00	0.858	mg/Kg			03/09/22 08:36	1

## Surrogate Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-12022-1  
SDG: Lea Co. NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-11927-A-1-F MS	Matrix Spike	86	126
880-11927-A-1-G MSD	Matrix Spike Duplicate	78	126
880-11958-A-10-G MS	Matrix Spike	106	101
880-11958-A-10-H MSD	Matrix Spike Duplicate	105	100
880-12022-1	SW-1	105	93
880-12022-2	SW-2	110	95
880-12022-3	SW-3	103	93
880-12022-4	SW-4	105	93
880-12022-5	SW-5	105	95
880-12022-6	SW-6	105	93
880-12022-7	SW-7	106	101
880-12022-8	SW-8	105	101
880-12022-9	SW-9	106	96
880-12022-10	SW-10	106	99
880-12022-11	SW-11	81	125
880-12022-12	SW-12	144 S1+	91
880-12022-13	SW-13	77	113
880-12022-14	SW-14	71	108
880-12022-15	SW-15	78	121
880-12022-16	SW-16	73	114
LCS 880-20915/1-A	Lab Control Sample	102	100
LCS 880-20917/1-A	Lab Control Sample	77	117
LCS D 880-20915/2-A	Lab Control Sample Dup	100	100
LCS D 880-20917/2-A	Lab Control Sample Dup	79	126
MB 880-20915/5-A	Method Blank	103	95
MB 880-20917/5-A	Method Blank	50 S1-	108

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-11985-A-1-G MS	Matrix Spike	105	102
880-11985-A-1-H MSD	Matrix Spike Duplicate	96	91
880-12022-1	SW-1	92	90
880-12022-2	SW-2	94	90
880-12022-3	SW-3	93	83
880-12022-4	SW-4	88	81
880-12022-5	SW-5	92	82
880-12022-6	SW-6	106	105
880-12022-7	SW-7	92	87
880-12022-8	SW-8	99	103
880-12022-9	SW-9	96	108
880-12022-10	SW-10	94	85
880-12022-11	SW-11	107	99

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### Surrogate Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-12022-12	SW-12	95	82
880-12022-13	SW-13	101	88
880-12022-14	SW-14	109	106
880-12022-15	SW-15	86	83
880-12022-16	SW-16	112	102
LCS 880-20865/2-A	Lab Control Sample	99	97
LCSD 880-20865/3-A	Lab Control Sample Dup	107	104
MB 880-20865/1-A	Method Blank	99	112

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

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

Lab Sample ID: MB 880-20915/5-A  
Matrix: Solid  
Analysis Batch: 21007

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 20915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		03/07/22 07:45	03/07/22 11:04	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		03/07/22 07:45	03/07/22 11:04	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/07/22 07:45	03/07/22 11:04	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/07/22 07:45	03/07/22 11:04	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/07/22 07:45	03/07/22 11:04	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/07/22 07:45	03/07/22 11:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/07/22 07:45	03/07/22 11:04	1
1,4-Difluorobenzene (Surr)	95		70 - 130	03/07/22 07:45	03/07/22 11:04	1

Lab Sample ID: LCS 880-20915/1-A  
Matrix: Solid  
Analysis Batch: 21007

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 20915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09979		mg/Kg		100	70 - 130
Toluene	0.100	0.09833		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09714		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2017		mg/Kg		101	70 - 130
o-Xylene	0.100	0.09858		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-20915/2-A  
Matrix: Solid  
Analysis Batch: 21007

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 20915

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09904		mg/Kg		99	70 - 130	1	35
Toluene	0.100	0.09581		mg/Kg		96	70 - 130	3	35
Ethylbenzene	0.100	0.09616		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1993		mg/Kg		100	70 - 130	1	35
o-Xylene	0.100	0.09705		mg/Kg		97	70 - 130	2	35

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

Lab Sample ID: 880-11958-A-10-G MS  
Matrix: Solid  
Analysis Batch: 21007

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 20915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000383	U	0.100	0.09987		mg/Kg		99	70 - 130
Toluene	0.00139	J	0.100	0.09767		mg/Kg		96	70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

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

Lab Sample ID: 880-11958-A-10-G MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 21007

Prep Batch: 20915

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	0.00129	J	0.100	0.09717		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.00655		0.201	0.2027		mg/Kg		98	70 - 130
o-Xylene	0.00292		0.100	0.09869		mg/Kg		95	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-11958-A-10-H MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 21007

Prep Batch: 20915

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.000383	U	0.0992	0.09903		mg/Kg		100	70 - 130	1	35
Toluene	0.00139	J	0.0992	0.09876		mg/Kg		98	70 - 130	1	35
Ethylbenzene	0.00129	J	0.0992	0.09659		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	0.00655		0.198	0.2009		mg/Kg		98	70 - 130	1	35
o-Xylene	0.00292		0.0992	0.1064		mg/Kg		104	70 - 130	8	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-20917/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 21008

Prep Batch: 20917

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		03/07/22 08:00	03/07/22 11:39	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		03/07/22 08:00	03/07/22 11:39	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/07/22 08:00	03/07/22 11:39	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/07/22 08:00	03/07/22 11:39	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/07/22 08:00	03/07/22 11:39	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/07/22 08:00	03/07/22 11:39	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	50	S1-	70 - 130	03/07/22 08:00	03/07/22 11:39	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/07/22 08:00	03/07/22 11:39	1

Lab Sample ID: LCS 880-20917/1-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 21008

Prep Batch: 20917

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Benzene	0.100	0.09733		mg/Kg		97	70 - 130
Toluene	0.100	0.08353		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.08996		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1833		mg/Kg		92	70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

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

Lab Sample ID: LCS 880-20917/1-A  
Matrix: Solid  
Analysis Batch: 21008

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 20917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	0.100	0.08873		mg/Kg		89	70 - 130
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene (Surr)	77		70 - 130				
1,4-Difluorobenzene (Surr)	117		70 - 130				

Lab Sample ID: LCSD 880-20917/2-A  
Matrix: Solid  
Analysis Batch: 21008

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 20917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1102		mg/Kg		110	70 - 130	12	35
Toluene	0.100	0.09634		mg/Kg		96	70 - 130	14	35
Ethylbenzene	0.100	0.1026		mg/Kg		103	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.2099		mg/Kg		105	70 - 130	14	35
o-Xylene	0.100	0.1014		mg/Kg		101	70 - 130	13	35
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	79		70 - 130						
1,4-Difluorobenzene (Surr)	126		70 - 130						

Lab Sample ID: 880-11927-A-1-F MS  
Matrix: Solid  
Analysis Batch: 21008

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 20917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000388	U	0.0990	0.09711		mg/Kg		98	70 - 130
Toluene	<0.000460	U	0.0990	0.07931		mg/Kg		80	70 - 130
Ethylbenzene	<0.000570	U	0.0990	0.08524		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	<0.00102	U	0.198	0.1740		mg/Kg		88	70 - 130
o-Xylene	<0.000347	U	0.0990	0.08206		mg/Kg		83	70 - 130
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	86		70 - 130						
1,4-Difluorobenzene (Surr)	126		70 - 130						

Lab Sample ID: 880-11927-A-1-G MSD  
Matrix: Solid  
Analysis Batch: 21008

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 20917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.000388	U	0.0996	0.09743		mg/Kg		98	70 - 130	0	35
Toluene	<0.000460	U	0.0996	0.07973		mg/Kg		80	70 - 130	1	35
Ethylbenzene	<0.000570	U	0.0996	0.08532		mg/Kg		86	70 - 130	0	35
m-Xylene & p-Xylene	<0.00102	U	0.199	0.1745		mg/Kg		88	70 - 130	0	35
o-Xylene	<0.000347	U	0.0996	0.08465		mg/Kg		85	70 - 130	3	35

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

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

Lab Sample ID: 880-11927-A-1-G MSD  
Matrix: Solid  
Analysis Batch: 21008

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 20917

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	78		70 - 130
1,4-Difluorobenzene (Surr)	126		70 - 130

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

Lab Sample ID: MB 880-20865/1-A  
Matrix: Solid  
Analysis Batch: 20969

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 20865

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	22.64	J	50.0	15.0	mg/Kg		03/04/22 09:26	03/06/22 20:41	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/04/22 09:26	03/06/22 20:41	1
Oil Range Organics (Over C28-C36)	15.44	J	50.0	15.0	mg/Kg		03/04/22 09:26	03/06/22 20:41	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	99		70 - 130	03/04/22 09:26	03/06/22 20:41	1
o-Terphenyl	112		70 - 130	03/04/22 09:26	03/06/22 20:41	1

Lab Sample ID: LCS 880-20865/2-A  
Matrix: Solid  
Analysis Batch: 20969

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 20865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Result	Qualifier
Gasoline Range Organics (GRO)-C6-C10	1000	814.9		mg/Kg		81	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	927.4		mg/Kg		93	70 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	99		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-20865/3-A  
Matrix: Solid  
Analysis Batch: 20969

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 20865

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
							Result	Qualifier		
Gasoline Range Organics (GRO)-C6-C10	1000	891.3		mg/Kg		89	70 - 130	9	20	
Diesel Range Organics (Over C10-C28)	1000	945.4		mg/Kg		95	70 - 130	2	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	107		70 - 130
o-Terphenyl	104		70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

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

Lab Sample ID: 880-11985-A-1-G MS  
Matrix: Solid  
Analysis Batch: 20969

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 20865

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	25.2	J B	1000	958.6		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	16.4	J	1000	880.1		mg/Kg		86	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	105		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-11985-A-1-H MSD  
Matrix: Solid  
Analysis Batch: 20969

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 20865

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	25.2	J B	998	836.6		mg/Kg		81	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	16.4	J	998	814.5		mg/Kg		80	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	91		70 - 130								

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

Lab Sample ID: MB 880-20873/1-A  
Matrix: Solid  
Analysis Batch: 21037

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.858	U	5.00	0.858	mg/Kg			03/07/22 16:38	1

Lab Sample ID: LCS 880-20873/2-A  
Matrix: Solid  
Analysis Batch: 21037

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Chloride	250	255.7		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-20873/3-A  
Matrix: Solid  
Analysis Batch: 21037

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

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
		Result	Qualifier						
Chloride	250	254.5		mg/Kg		102	90 - 110	0	20

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

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

**Lab Sample ID: 880-11984-A-11-C MS**  
**Matrix: Solid**  
**Analysis Batch: 21037**

**Client Sample ID: Matrix Spike**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	26.8		248	292.8		mg/Kg		107	90 - 110

**Lab Sample ID: 880-11984-A-11-D MSD**  
**Matrix: Solid**  
**Analysis Batch: 21037**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	26.8		248	289.4		mg/Kg		106	90 - 110	1	20

**Lab Sample ID: MB 880-20874/1-A**  
**Matrix: Solid**  
**Analysis Batch: 21042**

**Client Sample ID: Method Blank**  
**Prep Type: Soluble**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			03/09/22 01:26	1

**Lab Sample ID: LCS 880-20874/2-A**  
**Matrix: Solid**  
**Analysis Batch: 21042**

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

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

**Lab Sample ID: LCSD 880-20874/3-A**  
**Matrix: Solid**  
**Analysis Batch: 21042**

**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	259.4		mg/Kg		104	90 - 110	3	20

**Lab Sample ID: 880-12022-7 MS**  
**Matrix: Solid**  
**Analysis Batch: 21042**

**Client Sample ID: SW-7**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	687		249	933.3		mg/Kg		99	90 - 110

**Lab Sample ID: 880-12022-7 MSD**  
**Matrix: Solid**  
**Analysis Batch: 21042**

**Client Sample ID: SW-7**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	687		249	923.3		mg/Kg		95	90 - 110	1	20

### QC Association Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

#### GC VOA

##### Prep Batch: 20915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Total/NA	Solid	5035	
880-12022-2	SW-2	Total/NA	Solid	5035	
880-12022-3	SW-3	Total/NA	Solid	5035	
880-12022-4	SW-4	Total/NA	Solid	5035	
880-12022-5	SW-5	Total/NA	Solid	5035	
880-12022-6	SW-6	Total/NA	Solid	5035	
880-12022-7	SW-7	Total/NA	Solid	5035	
880-12022-8	SW-8	Total/NA	Solid	5035	
880-12022-9	SW-9	Total/NA	Solid	5035	
880-12022-10	SW-10	Total/NA	Solid	5035	
MB 880-20915/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20915/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20915/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11958-A-10-G MS	Matrix Spike	Total/NA	Solid	5035	
880-11958-A-10-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

##### Prep Batch: 20917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-11	SW-11	Total/NA	Solid	5035	
880-12022-12	SW-12	Total/NA	Solid	5035	
880-12022-13	SW-13	Total/NA	Solid	5035	
880-12022-14	SW-14	Total/NA	Solid	5035	
880-12022-15	SW-15	Total/NA	Solid	5035	
880-12022-16	SW-16	Total/NA	Solid	5035	
MB 880-20917/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20917/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20917/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11927-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
880-11927-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

##### Analysis Batch: 21007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Total/NA	Solid	8021B	20915
880-12022-2	SW-2	Total/NA	Solid	8021B	20915
880-12022-3	SW-3	Total/NA	Solid	8021B	20915
880-12022-4	SW-4	Total/NA	Solid	8021B	20915
880-12022-5	SW-5	Total/NA	Solid	8021B	20915
880-12022-6	SW-6	Total/NA	Solid	8021B	20915
880-12022-7	SW-7	Total/NA	Solid	8021B	20915
880-12022-8	SW-8	Total/NA	Solid	8021B	20915
880-12022-9	SW-9	Total/NA	Solid	8021B	20915
880-12022-10	SW-10	Total/NA	Solid	8021B	20915
MB 880-20915/5-A	Method Blank	Total/NA	Solid	8021B	20915
LCS 880-20915/1-A	Lab Control Sample	Total/NA	Solid	8021B	20915
LCSD 880-20915/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20915
880-11958-A-10-G MS	Matrix Spike	Total/NA	Solid	8021B	20915
880-11958-A-10-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20915

##### Analysis Batch: 21008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-11	SW-11	Total/NA	Solid	8021B	20917

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### QC Association Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

#### GC VOA (Continued)

##### Analysis Batch: 21008 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-12	SW-12	Total/NA	Solid	8021B	20917
880-12022-13	SW-13	Total/NA	Solid	8021B	20917
880-12022-14	SW-14	Total/NA	Solid	8021B	20917
880-12022-15	SW-15	Total/NA	Solid	8021B	20917
880-12022-16	SW-16	Total/NA	Solid	8021B	20917
MB 880-20917/5-A	Method Blank	Total/NA	Solid	8021B	20917
LCS 880-20917/1-A	Lab Control Sample	Total/NA	Solid	8021B	20917
LCSD 880-20917/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20917
880-11927-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	20917
880-11927-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20917

##### Analysis Batch: 21151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Total/NA	Solid	Total BTEX	
880-12022-2	SW-2	Total/NA	Solid	Total BTEX	
880-12022-3	SW-3	Total/NA	Solid	Total BTEX	
880-12022-4	SW-4	Total/NA	Solid	Total BTEX	
880-12022-5	SW-5	Total/NA	Solid	Total BTEX	
880-12022-6	SW-6	Total/NA	Solid	Total BTEX	
880-12022-7	SW-7	Total/NA	Solid	Total BTEX	
880-12022-8	SW-8	Total/NA	Solid	Total BTEX	
880-12022-9	SW-9	Total/NA	Solid	Total BTEX	
880-12022-10	SW-10	Total/NA	Solid	Total BTEX	
880-12022-11	SW-11	Total/NA	Solid	Total BTEX	
880-12022-12	SW-12	Total/NA	Solid	Total BTEX	
880-12022-13	SW-13	Total/NA	Solid	Total BTEX	
880-12022-14	SW-14	Total/NA	Solid	Total BTEX	
880-12022-15	SW-15	Total/NA	Solid	Total BTEX	
880-12022-16	SW-16	Total/NA	Solid	Total BTEX	

#### GC Semi VOA

##### Prep Batch: 20865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Total/NA	Solid	8015NM Prep	
880-12022-2	SW-2	Total/NA	Solid	8015NM Prep	
880-12022-3	SW-3	Total/NA	Solid	8015NM Prep	
880-12022-4	SW-4	Total/NA	Solid	8015NM Prep	
880-12022-5	SW-5	Total/NA	Solid	8015NM Prep	
880-12022-6	SW-6	Total/NA	Solid	8015NM Prep	
880-12022-7	SW-7	Total/NA	Solid	8015NM Prep	
880-12022-8	SW-8	Total/NA	Solid	8015NM Prep	
880-12022-9	SW-9	Total/NA	Solid	8015NM Prep	
880-12022-10	SW-10	Total/NA	Solid	8015NM Prep	
880-12022-11	SW-11	Total/NA	Solid	8015NM Prep	
880-12022-12	SW-12	Total/NA	Solid	8015NM Prep	
880-12022-13	SW-13	Total/NA	Solid	8015NM Prep	
880-12022-14	SW-14	Total/NA	Solid	8015NM Prep	
880-12022-15	SW-15	Total/NA	Solid	8015NM Prep	
880-12022-16	SW-16	Total/NA	Solid	8015NM Prep	
MB 880-20865/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-12022-1  
SDG: Lea Co. NM

## GC Semi VOA (Continued)

## Prep Batch: 20865 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-20865/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20865/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11985-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11985-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 20969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Total/NA	Solid	8015B NM	20865
880-12022-2	SW-2	Total/NA	Solid	8015B NM	20865
880-12022-3	SW-3	Total/NA	Solid	8015B NM	20865
880-12022-4	SW-4	Total/NA	Solid	8015B NM	20865
880-12022-5	SW-5	Total/NA	Solid	8015B NM	20865
880-12022-6	SW-6	Total/NA	Solid	8015B NM	20865
880-12022-7	SW-7	Total/NA	Solid	8015B NM	20865
880-12022-8	SW-8	Total/NA	Solid	8015B NM	20865
880-12022-9	SW-9	Total/NA	Solid	8015B NM	20865
880-12022-10	SW-10	Total/NA	Solid	8015B NM	20865
880-12022-11	SW-11	Total/NA	Solid	8015B NM	20865
880-12022-12	SW-12	Total/NA	Solid	8015B NM	20865
880-12022-13	SW-13	Total/NA	Solid	8015B NM	20865
880-12022-14	SW-14	Total/NA	Solid	8015B NM	20865
880-12022-15	SW-15	Total/NA	Solid	8015B NM	20865
880-12022-16	SW-16	Total/NA	Solid	8015B NM	20865
MB 880-20865/1-A	Method Blank	Total/NA	Solid	8015B NM	20865
LCS 880-20865/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20865
LCSD 880-20865/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20865
880-11985-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	20865
880-11985-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20865

## Analysis Batch: 21063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Total/NA	Solid	8015 NM	
880-12022-2	SW-2	Total/NA	Solid	8015 NM	
880-12022-3	SW-3	Total/NA	Solid	8015 NM	
880-12022-4	SW-4	Total/NA	Solid	8015 NM	
880-12022-5	SW-5	Total/NA	Solid	8015 NM	
880-12022-6	SW-6	Total/NA	Solid	8015 NM	
880-12022-7	SW-7	Total/NA	Solid	8015 NM	
880-12022-8	SW-8	Total/NA	Solid	8015 NM	
880-12022-9	SW-9	Total/NA	Solid	8015 NM	
880-12022-10	SW-10	Total/NA	Solid	8015 NM	
880-12022-11	SW-11	Total/NA	Solid	8015 NM	
880-12022-12	SW-12	Total/NA	Solid	8015 NM	
880-12022-13	SW-13	Total/NA	Solid	8015 NM	
880-12022-14	SW-14	Total/NA	Solid	8015 NM	
880-12022-15	SW-15	Total/NA	Solid	8015 NM	
880-12022-16	SW-16	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-12022-1  
SDG: Lea Co. NM

## HPLC/IC

## Leach Batch: 20873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Soluble	Solid	DI Leach	
880-12022-2	SW-2	Soluble	Solid	DI Leach	
880-12022-3	SW-3	Soluble	Solid	DI Leach	
880-12022-4	SW-4	Soluble	Solid	DI Leach	
880-12022-5	SW-5	Soluble	Solid	DI Leach	
880-12022-6	SW-6	Soluble	Solid	DI Leach	
MB 880-20873/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20873/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20873/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11984-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11984-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Leach Batch: 20874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-7	SW-7	Soluble	Solid	DI Leach	
880-12022-8	SW-8	Soluble	Solid	DI Leach	
880-12022-9	SW-9	Soluble	Solid	DI Leach	
880-12022-10	SW-10	Soluble	Solid	DI Leach	
880-12022-11	SW-11	Soluble	Solid	DI Leach	
880-12022-12	SW-12	Soluble	Solid	DI Leach	
880-12022-13	SW-13	Soluble	Solid	DI Leach	
880-12022-14	SW-14	Soluble	Solid	DI Leach	
880-12022-15	SW-15	Soluble	Solid	DI Leach	
880-12022-16	SW-16	Soluble	Solid	DI Leach	
MB 880-20874/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20874/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20874/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12022-7 MS	SW-7	Soluble	Solid	DI Leach	
880-12022-7 MSD	SW-7	Soluble	Solid	DI Leach	

## Analysis Batch: 21037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-1	SW-1	Soluble	Solid	300.0	20873
880-12022-2	SW-2	Soluble	Solid	300.0	20873
880-12022-3	SW-3	Soluble	Solid	300.0	20873
880-12022-4	SW-4	Soluble	Solid	300.0	20873
880-12022-5	SW-5	Soluble	Solid	300.0	20873
880-12022-6	SW-6	Soluble	Solid	300.0	20873
MB 880-20873/1-A	Method Blank	Soluble	Solid	300.0	20873
LCS 880-20873/2-A	Lab Control Sample	Soluble	Solid	300.0	20873
LCSD 880-20873/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20873
880-11984-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	20873
880-11984-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20873

## Analysis Batch: 21042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-7	SW-7	Soluble	Solid	300.0	20874
880-12022-8	SW-8	Soluble	Solid	300.0	20874
880-12022-9	SW-9	Soluble	Solid	300.0	20874
880-12022-10	SW-10	Soluble	Solid	300.0	20874
880-12022-11	SW-11	Soluble	Solid	300.0	20874

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### QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

#### HPLC/IC (Continued)

#### Analysis Batch: 21042 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12022-12	SW-12	Soluble	Solid	300.0	20874
880-12022-13	SW-13	Soluble	Solid	300.0	20874
880-12022-14	SW-14	Soluble	Solid	300.0	20874
880-12022-15	SW-15	Soluble	Solid	300.0	20874
880-12022-16	SW-16	Soluble	Solid	300.0	20874
MB 880-20874/1-A	Method Blank	Soluble	Solid	300.0	20874
LCS 880-20874/2-A	Lab Control Sample	Soluble	Solid	300.0	20874
LCSD 880-20874/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20874
880-12022-7 MS	SW-7	Soluble	Solid	300.0	20874
880-12022-7 MSD	SW-7	Soluble	Solid	300.0	20874

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-1**

**Lab Sample ID: 880-12022-1**

Date Collected: 03/02/22 12:05

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 16:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/06/22 23:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20873	03/04/22 10:34	CH	XEN MID
Soluble	Analysis	300.0		5			21037	03/07/22 20:20	CH	XEN MID

**Client Sample ID: SW-2**

**Lab Sample ID: 880-12022-2**

Date Collected: 03/02/22 12:10

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 17:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 00:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20873	03/04/22 10:34	CH	XEN MID
Soluble	Analysis	300.0		1			21037	03/07/22 20:29	CH	XEN MID

**Client Sample ID: SW-3**

**Lab Sample ID: 880-12022-3**

Date Collected: 03/02/22 12:15

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 17:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 00:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20873	03/04/22 10:34	CH	XEN MID
Soluble	Analysis	300.0		1			21037	03/07/22 20:38	CH	XEN MID

**Client Sample ID: SW-4**

**Lab Sample ID: 880-12022-4**

Date Collected: 03/02/22 12:20

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 17:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID

Eurofins Midland

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

**Client Sample ID: SW-4**

**Lab Sample ID: 880-12022-4**

Date Collected: 03/02/22 12:20

Matrix: Solid

Date Received: 03/03/22 14:50

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			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 00:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	20873	03/04/22 10:34	CH	XEN MID
Soluble	Analysis	300.0		1			21037	03/07/22 20:47	CH	XEN MID

**Client Sample ID: SW-5**

**Lab Sample ID: 880-12022-5**

Date Collected: 03/02/22 12:25

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 18:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 01:14	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20873	03/04/22 10:34	CH	XEN MID
Soluble	Analysis	300.0		1			21037	03/07/22 20:56	CH	XEN MID

**Client Sample ID: SW-6**

**Lab Sample ID: 880-12022-6**

Date Collected: 03/02/22 12:30

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 18:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 01:34	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20873	03/04/22 10:34	CH	XEN MID
Soluble	Analysis	300.0		10			21037	03/07/22 21:05	CH	XEN MID

**Client Sample ID: SW-7**

**Lab Sample ID: 880-12022-7**

Date Collected: 03/02/22 12:35

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 18:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 02:14	AJ	XEN MID

Eurofins Midland

### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

**Client Sample ID: SW-7**

**Lab Sample ID: 880-12022-7**

Date Collected: 03/02/22 12:35

Matrix: Solid

Date Received: 03/03/22 14:50

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	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		1			21042	03/09/22 01:44	CH	XEN MID

**Client Sample ID: SW-8**

**Lab Sample ID: 880-12022-8**

Date Collected: 03/02/22 12:40

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 19:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 02:34	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		10			21042	03/09/22 02:01	CH	XEN MID

**Client Sample ID: SW-9**

**Lab Sample ID: 880-12022-9**

Date Collected: 03/02/22 12:45

Matrix: Solid

Date Received: 03/03/22 14:50

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	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 19:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 02:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		10			21042	03/09/22 02:07	CH	XEN MID

**Client Sample ID: SW-10**

**Lab Sample ID: 880-12022-10**

Date Collected: 03/02/22 12:50

Matrix: Solid

Date Received: 03/03/22 14:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20915	03/07/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21007	03/07/22 19:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		1			21042	03/09/22 02:13	CH	XEN MID

### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

**Client Sample ID: SW-11**

**Lab Sample ID: 880-12022-11**

Date Collected: 03/02/22 13:00

Matrix: Solid

Date Received: 03/03/22 14:50

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	20917	03/07/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21008	03/07/22 19:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 03:34	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		5			21042	03/09/22 02:19	CH	XEN MID

**Client Sample ID: SW-12**

**Lab Sample ID: 880-12022-12**

Date Collected: 03/02/22 13:05

Matrix: Solid

Date Received: 03/03/22 14:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20917	03/07/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21008	03/07/22 20:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 03:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		1			21042	03/09/22 02:37	CH	XEN MID

**Client Sample ID: SW-13**

**Lab Sample ID: 880-12022-13**

Date Collected: 03/02/22 13:10

Matrix: Solid

Date Received: 03/03/22 14:50

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	20917	03/07/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21008	03/07/22 20:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 04:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		10			21042	03/09/22 02:43	CH	XEN MID

**Client Sample ID: SW-14**

**Lab Sample ID: 880-12022-14**

Date Collected: 03/02/22 13:15

Matrix: Solid

Date Received: 03/03/22 14:50

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	20917	03/07/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21008	03/07/22 21:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID

Eurofins Midland

### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

**Client Sample ID: SW-14**

**Lab Sample ID: 880-12022-14**

Date Collected: 03/02/22 13:15

Matrix: Solid

Date Received: 03/03/22 14:50

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			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 04:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		5			21042	03/09/22 02:49	CH	XEN MID

**Client Sample ID: SW-15**

**Lab Sample ID: 880-12022-15**

Date Collected: 03/02/22 13:20

Matrix: Solid

Date Received: 03/03/22 14:50

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	20917	03/07/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21008	03/07/22 21:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 04:54	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		1			21042	03/09/22 08:30	CH	XEN MID

**Client Sample ID: SW-16**

**Lab Sample ID: 880-12022-16**

Date Collected: 03/02/22 13:25

Matrix: Solid

Date Received: 03/03/22 14:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20917	03/07/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21008	03/07/22 22:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21151	03/08/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21063	03/07/22 21:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20865	03/04/22 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20969	03/07/22 05:14	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20874	03/04/22 10:39	CH	XEN MID
Soluble	Analysis	300.0		1			21042	03/09/22 08:36	CH	XEN MID

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
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	T104704400-21-22	06-30-22

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Method Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-12022-1  
 SDG: Lea Co. NM

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

**Protocol References:**

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- 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:**

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



### Sample Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-12022-1  
SDG: Lea Co. NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12022-1	SW-1	Solid	03/02/22 12:05	03/03/22 14:50	2'
880-12022-2	SW-2	Solid	03/02/22 12:10	03/03/22 14:50	2'
880-12022-3	SW-3	Solid	03/02/22 12:15	03/03/22 14:50	2'
880-12022-4	SW-4	Solid	03/02/22 12:20	03/03/22 14:50	2'
880-12022-5	SW-5	Solid	03/02/22 12:25	03/03/22 14:50	2'
880-12022-6	SW-6	Solid	03/02/22 12:30	03/03/22 14:50	1'
880-12022-7	SW-7	Solid	03/02/22 12:35	03/03/22 14:50	1'
880-12022-8	SW-8	Solid	03/02/22 12:40	03/03/22 14:50	1'
880-12022-9	SW-9	Solid	03/02/22 12:45	03/03/22 14:50	1'
880-12022-10	SW-10	Solid	03/02/22 12:50	03/03/22 14:50	1'
880-12022-11	SW-11	Solid	03/02/22 13:00	03/03/22 14:50	1.5'
880-12022-12	SW-12	Solid	03/02/22 13:05	03/03/22 14:50	1.5'
880-12022-13	SW-13	Solid	03/02/22 13:10	03/03/22 14:50	1.5'
880-12022-14	SW-14	Solid	03/02/22 13:15	03/03/22 14:50	1.5'
880-12022-15	SW-15	Solid	03/02/22 13:20	03/03/22 14:50	1.5'
880-12022-16	SW-16	Solid	03/02/22 13:25	03/03/22 14:50	1.5'

- 1
- 2
- 3
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- 11
- 12
- 13
- 14



Environment Testing  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 388-3199

Chain of Custody

Work Order No: 12022

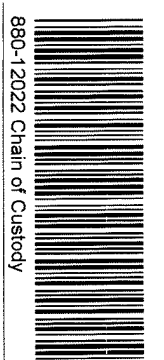
www.xenco.com Page 1 of 2

Project Manager:	Lindy Cain	Bill to: (if different)	Nicole Lonnel
Company Name:	Lain Environmental	Company Name:	EXP
Address:	2925 E. 17th St.	Address:	11757 Katy Fwy, Sk. 475
City, State ZIP:	Odessa, TX 79701	City, State ZIP:	Houston, TX 77079
Phone:	(575) 441-7344	Email:	Lindy.Cain@gmail.com

Program:	<input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund
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
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other

Project Name:	BT A #4	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Location:	Lea Co. NM	Due Date:	
Sampler's Name:	Lindy Cain	TAT starts the day received by the lab. If received by 4:30pm	
P.O. #		Wet Ice:	Yes No
SAMPLE RECEIPT	Temp Blank: Yes No	Thermometer ID:	IPP8
Samples Received Intact:	Yes No	Correction Factor:	-1
Cooler Custody Seals:	Yes No	Temperature Reading	37
Sample Custody Seals:	Yes No	Corrected Temperature	35
Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Preservative Codes	Sample Comments
SN-1	S	3/2/22	1205	2'	C	1	TPH 8015M BTEX Chlorides	None NO Cool Cool HCL, HC H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> , HP 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	
SN-2									
SN-3									
SN-4									
SN-5									
SN-6									
SN-7									
SN-8									
SN-9									
SN-10									



880-12022 Chain of Custody

Total 200.7 / 6010	200.8 / 6020:	BRCRA 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	Tl	Sn	U	V	Zn		
Circle Method(s) and Metal(s) to be analyzed		TCP / SPLP 6010	8RCRA 5b	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg	1631 / 245 1 / 7470 / 7471											
Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time																												

Note: 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.



Environment Testing  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
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El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: 12022

www.xenco.com Page 2 of 2

Project Manager:	<i>Lindy Cain</i>	Bill to: (if different)	<i>Nicole Corwell</i>
Company Name:	<i>Cain Environmental</i>	Company Name:	<i>BXP</i>
Address:	<i>2925 E. 17th St.</i>	Address:	<i>11757 Katy Fwy, Ste. 475</i>
City, State ZIP:	<i>Alexsxa, TX 79761</i>	City, State ZIP:	<i>Houston TX 77079</i>
Phone:	<i>(575) 441-7244</i>	Email:	<i>Lindy.Cain@gmail.com</i>
Project Name:	<i>BT A #4</i>	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Number:	<i>-</i>	Pres. Code:	
Project Location:	<i>Lea Co, NM</i>	Due Date:	
Sampler's Name:	<i>Lindy Cain</i>	TAT starts the day received by the lab, if received by 4:30pm	
PO #:		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		Thermometer ID:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		Correction Factor:	<i>-1</i>
		Temperature Reading:	<i>4.7</i>
		Corrected Temperature:	<i>3.0</i>

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:	<i>NM</i>
Reporting Level:	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 <input type="checkbox"/>

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters		Preservative Codes
							TPH	BTEX	
SW-11	S	3/2/22	1300	1.5'	C	1	TPH	8015M	DI Water- H <sub>2</sub> O
SW-12			1305	1.5'					MeOH Me
SW-13			1310	1.5'					HCL, HC
SW-14			1315	1.5'					HNO <sub>3</sub> HN
SW-15			1320	1.5'					H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub>
SW-16			1325	1.5'					H <sub>3</sub> PO <sub>4</sub> , HP
									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 2007 / 6010      2008 / 6020:      RRCRA 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 Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed      TCLP / SPLP 6010      RRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U      Hg 1631 / 2451 / 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
<i>Lindy Cain</i>	<i>Nicole Corwell</i>	3/3/22			14:50

### Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-12022-1

SDG Number: Lea Co. NM

**Login Number: 12022**

**List Number: 1**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

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Environment Testing  
America

## ANALYTICAL REPORT

Eurofins Midland  
1211 W. Florida Ave  
Midland, TX 79701  
Tel: (432)704-5440

Laboratory Job ID: 880-13931-1  
Laboratory Sample Delivery Group: Lea Co., NM  
Client Project/Site: BT A #4

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

Attn: Cindy Crain

Authorized for release by:  
4/29/2022 8:18:15 AM

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



### LINKS

Review your project  
results through  
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Have a Question?



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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Client: Crain Environmental  
Project/Site: BT A #4

Laboratory Job ID: 880-13931-1  
SDG: Lea Co., NM

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## Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

## Qualifiers

## GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high 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.
α	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/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Job ID: 880-13931-1**

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative  
880-13931-1**

**Receipt**

The samples were received on 4/20/2022 3:30 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 5.7°C

**GC Semi VOA**

Method 8015MOD\_NM: The laboratory control sample (LCS) associated with preparation batch 880-23863 and analytical batch 880-23891 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD\_NM: The method blank for preparation batch 880-23947 and analytical batch 880-24094 contained <AffectedAnalytes> above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-23947/3-A). Evidence of matrix interferences is not obvious.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-23916 and analytical batch 880-24346 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was 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: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-1**

**Lab Sample ID: 880-13931-1**

Date Collected: 04/19/22 14:20  
Date Received: 04/20/22 15:30  
Sample Depth: 1.5'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1020		25.2	4.33	mg/Kg			04/28/22 11:03	5

**Client Sample ID: SS-2**

**Lab Sample ID: 880-13931-2**

Date Collected: 04/19/22 14:25  
Date Received: 04/20/22 15:30  
Sample Depth: 1.5'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3700		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:02	1
Diesel Range Organics (Over C10-C28)	2790		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:02	1
Oil Range Organics (Over C28-C36)	905		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				04/20/22 16:43	04/21/22 14:02	1
o-Terphenyl	104		70 - 130				04/20/22 16:43	04/21/22 14:02	1

**Client Sample ID: SS-3**

**Lab Sample ID: 880-13931-3**

Date Collected: 04/19/22 14:30  
Date Received: 04/20/22 15:30  
Sample Depth: 3'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	242		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 12:56	1
Diesel Range Organics (Over C10-C28)	223		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 12:56	1
Oil Range Organics (Over C28-C36)	18.7 J		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/20/22 16:43	04/21/22 12:56	1
o-Terphenyl	105		70 - 130				04/20/22 16:43	04/21/22 12:56	1

### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-4**

**Lab Sample ID: 880-13931-4**

Date Collected: 04/19/22 14:35

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	310		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:24	1
Diesel Range Organics (Over C10-C28)	220		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:24	1
Oil Range Organics (Over C28-C36)	89.9		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				04/20/22 16:43	04/21/22 14:24	1
o-Terphenyl	111		70 - 130				04/20/22 16:43	04/21/22 14:24	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	577		4.98	0.855	mg/Kg			04/28/22 11:22	1

**Client Sample ID: SS-5**

**Lab Sample ID: 880-13931-5**

Date Collected: 04/19/22 14:40

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1120		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:45	1
Diesel Range Organics (Over C10-C28)	986		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:45	1
Oil Range Organics (Over C28-C36)	129		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 14:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/20/22 16:43	04/21/22 14:45	1
o-Terphenyl	103		70 - 130				04/20/22 16:43	04/21/22 14:45	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2270		24.8	4.25	mg/Kg			04/28/22 11:28	5

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-6**

**Lab Sample ID: 880-13931-6**

Date Collected: 04/19/22 14:45

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	764		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:08	1
Diesel Range Organics (Over C10-C28)	710		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:08	1
Oil Range Organics (Over C28-C36)	54.0		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				04/20/22 16:43	04/21/22 15:08	1
o-Terphenyl	117		70 - 130				04/20/22 16:43	04/21/22 15:08	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1380		25.1	4.30	mg/Kg			04/28/22 11:35	5

**Client Sample ID: SS-8**

**Lab Sample ID: 880-13931-7**

Date Collected: 04/19/22 14:50

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1580		24.9	4.27	mg/Kg			04/28/22 11:54	5

**Client Sample ID: SS-9**

**Lab Sample ID: 880-13931-8**

Date Collected: 04/19/22 14:55

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	779		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:30	1
Diesel Range Organics (Over C10-C28)	495		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:30	1
Oil Range Organics (Over C28-C36)	284		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				04/20/22 16:43	04/21/22 15:30	1
o-Terphenyl	115		70 - 130				04/20/22 16:43	04/21/22 15:30	1

Eurofins Midland

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-9**

**Lab Sample ID: 880-13931-8**

Date Collected: 04/19/22 14:55  
Date Received: 04/20/22 15:30  
Sample Depth: 1'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	852		5.00	0.858	mg/Kg			04/28/22 12:00	1

**Client Sample ID: SS-10**

**Lab Sample ID: 880-13931-9**

Date Collected: 04/19/22 15:00  
Date Received: 04/20/22 15:30  
Sample Depth: 1.5'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2120		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	37.5	J *	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:52	1
Diesel Range Organics (Over C10-C28)	1520		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:52	1
Oil Range Organics (Over C28-C36)	563		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130				04/20/22 16:43	04/21/22 15:52	1
o-Terphenyl	115		70 - 130				04/20/22 16:43	04/21/22 15:52	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2450	F1	49.5	8.50	mg/Kg			04/28/22 12:07	10

**Client Sample ID: SS-11**

**Lab Sample ID: 880-13931-10**

Date Collected: 04/19/22 15:05  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	359		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:14	1
Diesel Range Organics (Over C10-C28)	284		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:14	1
Oil Range Organics (Over C28-C36)	74.5		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				04/20/22 16:43	04/21/22 16:14	1
o-Terphenyl	93		70 - 130				04/20/22 16:43	04/21/22 16:14	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-11**

**Lab Sample ID: 880-13931-10**

Date Collected: 04/19/22 15:05  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2890		25.0	4.29	mg/Kg			04/28/22 12:57	5

**Client Sample ID: SS-12**

**Lab Sample ID: 880-13931-11**

Date Collected: 04/19/22 15:10  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	50.4		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:36	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:36	1
Oil Range Organics (Over C28-C36)	50.4		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/20/22 16:43	04/21/22 16:36	1
o-Terphenyl	97		70 - 130				04/20/22 16:43	04/21/22 16:36	1

**Client Sample ID: SS-13**

**Lab Sample ID: 880-13931-12**

Date Collected: 04/19/22 15:15  
Date Received: 04/20/22 15:30  
Sample Depth: 2.5'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	229		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:58	1
Diesel Range Organics (Over C10-C28)	210		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:58	1
Oil Range Organics (Over C28-C36)	19.4	J	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/20/22 16:43	04/21/22 16:58	1
o-Terphenyl	96		70 - 130				04/20/22 16:43	04/21/22 16:58	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	728		5.04	0.865	mg/Kg			04/28/22 13:04	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-1**

**Lab Sample ID: 880-13931-13**

Date Collected: 04/19/22 15:20

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.2		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	30.8	J *	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 17:43	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 17:43	1
Oil Range Organics (Over C28-C36)	28.4	J	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130				04/20/22 16:43	04/21/22 17:43	1
o-Terphenyl	111		70 - 130				04/20/22 16:43	04/21/22 17:43	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.1		4.98	0.855	mg/Kg			04/28/22 13:10	1

**Client Sample ID: SW-2**

**Lab Sample ID: 880-13931-14**

Date Collected: 04/19/22 15:25

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	25.9	J	50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:06	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:06	1
Oil Range Organics (Over C28-C36)	25.9	J	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				04/20/22 16:43	04/21/22 18:06	1
o-Terphenyl	91		70 - 130				04/20/22 16:43	04/21/22 18:06	1

**Client Sample ID: SW-3**

**Lab Sample ID: 880-13931-15**

Date Collected: 04/19/22 15:30

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	20.3	J	49.9	15.0	mg/Kg			04/22/22 10:26	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-3**

**Lab Sample ID: 880-13931-15**

Date Collected: 04/19/22 15:30

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:27	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:27	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>20.3</b>	<b>J</b>	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	04/20/22 16:43	04/21/22 18:27	1
o-Terphenyl	112		70 - 130	04/20/22 16:43	04/21/22 18:27	1

**Client Sample ID: SW-4**

**Lab Sample ID: 880-13931-16**

Date Collected: 04/19/22 15:35

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>652</b>		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:49	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>574</b>		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:49	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>77.7</b>		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	04/20/22 16:43	04/21/22 18:49	1
o-Terphenyl	91		70 - 130	04/20/22 16:43	04/21/22 18:49	1

**Client Sample ID: SW-5**

**Lab Sample ID: 880-13931-17**

Date Collected: 04/19/22 15:40

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>36.9</b>	<b>J</b>	50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:11	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:11	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>36.9</b>	<b>J</b>	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	04/20/22 16:43	04/21/22 19:11	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-5**

**Lab Sample ID: 880-13931-17**

Date Collected: 04/19/22 15:40  
Date Received: 04/20/22 15:30  
Sample Depth: 2.5'

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		70 - 130	04/20/22 16:43	04/21/22 19:11	1

**Client Sample ID: SW-6**

**Lab Sample ID: 880-13931-18**

Date Collected: 04/19/22 15:45  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>2840</b>		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:33	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>2330</b>		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:33	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>511</b>		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:33	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>1</i> -Chlorooctane	108		70 - 130	04/20/22 16:43	04/21/22 19:33	1			
<i>o</i> -Terphenyl	112		70 - 130	04/20/22 16:43	04/21/22 19:33	1			

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5090</b>		49.9	8.57	mg/Kg			04/28/22 13:16	10

**Client Sample ID: SW-7**

**Lab Sample ID: 880-13931-19**

Date Collected: 04/19/22 15:50  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>771</b>		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:55	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>684</b>		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:55	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>86.9</b>		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 19:55	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>1</i> -Chlorooctane	105		70 - 130	04/20/22 16:43	04/21/22 19:55	1			
<i>o</i> -Terphenyl	104		70 - 130	04/20/22 16:43	04/21/22 19:55	1			

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-7**

**Lab Sample ID: 880-13931-19**

Date Collected: 04/19/22 15:50  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	733		5.00	0.858	mg/Kg			04/28/22 13:23	1

**Client Sample ID: SW-8**

**Lab Sample ID: 880-13931-20**

Date Collected: 04/19/22 15:55  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3000		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	25.1	J *	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 20:17	1
Diesel Range Organics (Over C10-C28)	2340		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 20:17	1
Oil Range Organics (Over C28-C36)	636		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				04/20/22 16:43	04/21/22 20:17	1
o-Terphenyl	119		70 - 130				04/20/22 16:43	04/21/22 20:17	1

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	966		4.98	0.855	mg/Kg			04/28/22 13:29	1

**Client Sample ID: SW-9**

**Lab Sample ID: 880-13931-21**

Date Collected: 04/19/22 16:00  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	137		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *	49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 20:39	1
Diesel Range Organics (Over C10-C28)	70.8		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 20:39	1
Oil Range Organics (Over C28-C36)	66.6		49.9	15.0	mg/Kg		04/20/22 16:43	04/21/22 20:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				04/20/22 16:43	04/21/22 20:39	1
o-Terphenyl	86		70 - 130				04/20/22 16:43	04/21/22 20:39	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-9**

**Lab Sample ID: 880-13931-21**

Date Collected: 04/19/22 16:00  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3410		24.8	4.25	mg/Kg			04/28/22 13:35	5

**Client Sample ID: SW-10**

**Lab Sample ID: 880-13931-22**

Date Collected: 04/19/22 16:05  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	142		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 21:00	1
Diesel Range Organics (Over C10-C28)	99.3		50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 21:00	1
Oil Range Organics (Over C28-C36)	42.6	J	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				04/20/22 16:43	04/21/22 21:00	1
o-Terphenyl	88		70 - 130				04/20/22 16:43	04/21/22 21:00	1

**Client Sample ID: SW-11**

**Lab Sample ID: 880-13931-23**

Date Collected: 04/19/22 16:10  
Date Received: 04/20/22 15:30  
Sample Depth: 2'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	123		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.0	J	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 19:20	1
Diesel Range Organics (Over C10-C28)	103	B	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 19:20	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 19:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				04/21/22 14:06	04/23/22 19:20	1
o-Terphenyl	101		70 - 130				04/21/22 14:06	04/23/22 19:20	1

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-12**

**Lab Sample ID: 880-13931-24**

Date Collected: 04/19/22 16:15

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	97.4		49.9	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		04/21/22 14:06	04/23/22 19:41	1
Diesel Range Organics (Over C10-C28)	97.4	B	49.9	15.0	mg/Kg		04/21/22 14:06	04/23/22 19:41	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		04/21/22 14:06	04/23/22 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				04/21/22 14:06	04/23/22 19:41	1
o-Terphenyl	100		70 - 130				04/21/22 14:06	04/23/22 19:41	1

**Client Sample ID: SW-13**

**Lab Sample ID: 880-13931-25**

Date Collected: 04/19/22 16:20

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.5		5.05	0.867	mg/Kg			04/28/22 13:42	1

**Client Sample ID: SW-14**

**Lab Sample ID: 880-13931-26**

Date Collected: 04/19/22 16:25

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

**Method: 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1460		24.9	4.27	mg/Kg			04/28/22 13:48	5

**Client Sample ID: SW-15**

**Lab Sample ID: 880-13931-27**

Date Collected: 04/19/22 16:30

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	49.4	J	50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.5	J	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 20:01	1
Diesel Range Organics (Over C10-C28)	31.9	J B	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 20:01	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				04/21/22 14:06	04/23/22 20:01	1
o-Terphenyl	99		70 - 130				04/21/22 14:06	04/23/22 20:01	1

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

**Client Sample ID: SW-16**

**Lab Sample ID: 880-13931-28**

Date Collected: 04/19/22 16:35

Matrix: Solid

Date Received: 04/20/22 15:30

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	60.9		50.0	15.0	mg/Kg			04/22/22 10:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	19.7	J	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 20:22	1
Diesel Range Organics (Over C10-C28)	41.2	J B	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 20:22	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				04/21/22 14:06	04/23/22 20:22	1
o-Terphenyl	104		70 - 130				04/21/22 14:06	04/23/22 20:22	1

### Surrogate Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-13931-2	SS-2	103	104
880-13931-3	SS-3	98	105
880-13931-3 MS	SS-3	95	90
880-13931-3 MSD	SS-3	97	91
880-13931-4	SS-4	102	111
880-13931-5	SS-5	98	103
880-13931-6	SS-6	108	117
880-13931-8	SS-9	107	115
880-13931-9	SS-10	115	115
880-13931-10	SS-11	97	93
880-13931-11	SS-12	98	97
880-13931-12	SS-13	98	96
880-13931-13	SW-1	111	111
880-13931-14	SW-2	91	91
880-13931-15	SW-3	108	112
880-13931-16	SW-4	92	91
880-13931-17	SW-5	95	95
880-13931-18	SW-6	108	112
880-13931-19	SW-7	105	104
880-13931-20	SW-8	108	119
880-13931-21	SW-9	89	86
880-13931-22	SW-10	89	88
880-13931-23	SW-11	91	101
880-13931-24	SW-12	90	100
880-13931-27	SW-15	89	99
880-13931-28	SW-16	94	104
890-2221-A-1-B MS	Matrix Spike	90	94
890-2221-A-1-C MSD	Matrix Spike Duplicate	88	92
LCS 880-23863/2-A	Lab Control Sample	102	99
LCSD 880-23863/3-A	Lab Control Sample Dup	114	113
MB 880-23863/1-A	Method Blank	104	120

**Surrogate Legend**  
 1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO2 (70-130)	OTPH2 (70-130)
LCS 880-23947/2-A	Lab Control Sample	108	130
LCSD 880-23947/3-A	Lab Control Sample Dup	110	132 S1+
MB 880-23947/1-A	Method Blank	88	102

**Surrogate Legend**  
 1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

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

Lab Sample ID: MB 880-23863/1-A  
 Matrix: Solid  
 Analysis Batch: 23891

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 23863

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 11:49	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 11:49	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/20/22 16:43	04/21/22 11:49	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	104		70 - 130	04/20/22 16:43	04/21/22 11:49	1
o-Terphenyl	120		70 - 130	04/20/22 16:43	04/21/22 11:49	1

Lab Sample ID: LCS 880-23863/2-A  
 Matrix: Solid  
 Analysis Batch: 23891

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 23863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	818.6		mg/Kg		82	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	102		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-23863/3-A  
 Matrix: Solid  
 Analysis Batch: 23891

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 23863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	751.1		mg/Kg		75	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	863.7		mg/Kg		86	70 - 130	5	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	114		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-13931-3 MS  
 Matrix: Solid  
 Analysis Batch: 23891

Client Sample ID: SS-3  
 Prep Type: Total/NA  
 Prep Batch: 23863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	223		1000	1078		mg/Kg		86	70 - 130

### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

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

**Lab Sample ID: 880-13931-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 23891**

**Client Sample ID: SS-3**  
**Prep Type: Total/NA**  
**Prep Batch: 23863**

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

**Lab Sample ID: 880-13931-3 MSD**  
**Matrix: Solid**  
**Analysis Batch: 23891**

**Client Sample ID: SS-3**  
**Prep Type: Total/NA**  
**Prep Batch: 23863**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *-	998	829.7		mg/Kg		83	70 - 130	7		20
Diesel Range Organics (Over C10-C28)	223		998	1101		mg/Kg		88	70 - 130	2		20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	97		70 - 130
o-Terphenyl	91		70 - 130

**Lab Sample ID: MB 880-23947/1-A**  
**Matrix: Solid**  
**Analysis Batch: 24094**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 23947**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 11:38	1
Diesel Range Organics (Over C10-C28)	23.07	J	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 11:38	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/21/22 14:06	04/23/22 11:38	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	88		70 - 130	04/21/22 14:06	04/23/22 11:38	1
o-Terphenyl	102		70 - 130	04/21/22 14:06	04/23/22 11:38	1

**Lab Sample ID: LCS 880-23947/2-A**  
**Matrix: Solid**  
**Analysis Batch: 24094**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 23947**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	1000	873.0		mg/Kg		87	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1038		mg/Kg		104	70 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	108		70 - 130
o-Terphenyl	130		70 - 130

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

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

Lab Sample ID: LCSD 880-23947/3-A  
 Matrix: Solid  
 Analysis Batch: 24094

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 23947

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit	
										RPD
Gasoline Range Organics (GRO)-C6-C10	1000	861.5		mg/Kg		86	70 - 130	1	20	
Diesel Range Organics (Over C10-C28)	1000	1042		mg/Kg		104	70 - 130	0	20	
		<b>LCSD</b>	<b>LCSD</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
1-Chlorooctane	110		70 - 130							
o-Terphenyl	132	S1+	70 - 130							

Lab Sample ID: 890-2221-A-1-B MS  
 Matrix: Solid  
 Analysis Batch: 24094

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 23947

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	19.4	J	999	956.1		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	24.3	J B	999	851.5		mg/Kg		83	70 - 130		
		<b>MS</b>	<b>MS</b>								
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	94		70 - 130								

Lab Sample ID: 890-2221-A-1-C MSD  
 Matrix: Solid  
 Analysis Batch: 24094

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 23947

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	19.4	J	999	953.6		mg/Kg		94	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	24.3	J B	999	838.8		mg/Kg		82	70 - 130	2	20
		<b>MSD</b>	<b>MSD</b>								
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1-Chlorooctane	88		70 - 130								
o-Terphenyl	92		70 - 130								

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

Lab Sample ID: MB 880-23916/1-A  
 Matrix: Solid  
 Analysis Batch: 24346

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			04/28/22 10:06	1

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

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

**Lab Sample ID: LCS 880-23916/2-A**  
**Matrix: Solid**  
**Analysis Batch: 24346**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	264.7		mg/Kg		106	90 - 110

**Lab Sample ID: LCSD 880-23916/3-A**  
**Matrix: Solid**  
**Analysis Batch: 24346**

**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	257.5		mg/Kg		103	90 - 110	3	20

**Lab Sample ID: 880-13931-9 MS**  
**Matrix: Solid**  
**Analysis Batch: 24346**

**Client Sample ID: SS-10**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2450	F1	2480	5437	F1	mg/Kg		121	90 - 110

**Lab Sample ID: 880-13931-9 MSD**  
**Matrix: Solid**  
**Analysis Batch: 24346**

**Client Sample ID: SS-10**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2450	F1	2480	5494	F1	mg/Kg		123	90 - 110	1	20

### QC Association Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

#### GC Semi VOA

##### Prep Batch: 23863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-2	SS-2	Total/NA	Solid	8015NM Prep	
880-13931-3	SS-3	Total/NA	Solid	8015NM Prep	
880-13931-4	SS-4	Total/NA	Solid	8015NM Prep	
880-13931-5	SS-5	Total/NA	Solid	8015NM Prep	
880-13931-6	SS-6	Total/NA	Solid	8015NM Prep	
880-13931-8	SS-9	Total/NA	Solid	8015NM Prep	
880-13931-9	SS-10	Total/NA	Solid	8015NM Prep	
880-13931-10	SS-11	Total/NA	Solid	8015NM Prep	
880-13931-11	SS-12	Total/NA	Solid	8015NM Prep	
880-13931-12	SS-13	Total/NA	Solid	8015NM Prep	
880-13931-13	SW-1	Total/NA	Solid	8015NM Prep	
880-13931-14	SW-2	Total/NA	Solid	8015NM Prep	
880-13931-15	SW-3	Total/NA	Solid	8015NM Prep	
880-13931-16	SW-4	Total/NA	Solid	8015NM Prep	
880-13931-17	SW-5	Total/NA	Solid	8015NM Prep	
880-13931-18	SW-6	Total/NA	Solid	8015NM Prep	
880-13931-19	SW-7	Total/NA	Solid	8015NM Prep	
880-13931-20	SW-8	Total/NA	Solid	8015NM Prep	
880-13931-21	SW-9	Total/NA	Solid	8015NM Prep	
880-13931-22	SW-10	Total/NA	Solid	8015NM Prep	
MB 880-23863/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23863/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13931-3 MS	SS-3	Total/NA	Solid	8015NM Prep	
880-13931-3 MSD	SS-3	Total/NA	Solid	8015NM Prep	

##### Analysis Batch: 23891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-2	SS-2	Total/NA	Solid	8015B NM	23863
880-13931-3	SS-3	Total/NA	Solid	8015B NM	23863
880-13931-4	SS-4	Total/NA	Solid	8015B NM	23863
880-13931-5	SS-5	Total/NA	Solid	8015B NM	23863
880-13931-6	SS-6	Total/NA	Solid	8015B NM	23863
880-13931-8	SS-9	Total/NA	Solid	8015B NM	23863
880-13931-9	SS-10	Total/NA	Solid	8015B NM	23863
880-13931-10	SS-11	Total/NA	Solid	8015B NM	23863
880-13931-11	SS-12	Total/NA	Solid	8015B NM	23863
880-13931-12	SS-13	Total/NA	Solid	8015B NM	23863
880-13931-13	SW-1	Total/NA	Solid	8015B NM	23863
880-13931-14	SW-2	Total/NA	Solid	8015B NM	23863
880-13931-15	SW-3	Total/NA	Solid	8015B NM	23863
880-13931-16	SW-4	Total/NA	Solid	8015B NM	23863
880-13931-17	SW-5	Total/NA	Solid	8015B NM	23863
880-13931-18	SW-6	Total/NA	Solid	8015B NM	23863
880-13931-19	SW-7	Total/NA	Solid	8015B NM	23863
880-13931-20	SW-8	Total/NA	Solid	8015B NM	23863
880-13931-21	SW-9	Total/NA	Solid	8015B NM	23863
880-13931-22	SW-10	Total/NA	Solid	8015B NM	23863
MB 880-23863/1-A	Method Blank	Total/NA	Solid	8015B NM	23863
LCS 880-23863/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23863
LCSD 880-23863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23863

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-13931-1  
SDG: Lea Co., NM

## GC Semi VOA (Continued)

## Analysis Batch: 23891 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-3 MS	SS-3	Total/NA	Solid	8015B NM	23863
880-13931-3 MSD	SS-3	Total/NA	Solid	8015B NM	23863

## Prep Batch: 23947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-23	SW-11	Total/NA	Solid	8015NM Prep	
880-13931-24	SW-12	Total/NA	Solid	8015NM Prep	
880-13931-27	SW-15	Total/NA	Solid	8015NM Prep	
880-13931-28	SW-16	Total/NA	Solid	8015NM Prep	
MB 880-23947/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23947/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23947/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2221-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2221-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 24016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-2	SS-2	Total/NA	Solid	8015 NM	
880-13931-3	SS-3	Total/NA	Solid	8015 NM	
880-13931-4	SS-4	Total/NA	Solid	8015 NM	
880-13931-5	SS-5	Total/NA	Solid	8015 NM	
880-13931-6	SS-6	Total/NA	Solid	8015 NM	
880-13931-8	SS-9	Total/NA	Solid	8015 NM	
880-13931-9	SS-10	Total/NA	Solid	8015 NM	
880-13931-10	SS-11	Total/NA	Solid	8015 NM	
880-13931-11	SS-12	Total/NA	Solid	8015 NM	
880-13931-12	SS-13	Total/NA	Solid	8015 NM	
880-13931-13	SW-1	Total/NA	Solid	8015 NM	
880-13931-14	SW-2	Total/NA	Solid	8015 NM	
880-13931-15	SW-3	Total/NA	Solid	8015 NM	
880-13931-16	SW-4	Total/NA	Solid	8015 NM	
880-13931-17	SW-5	Total/NA	Solid	8015 NM	
880-13931-18	SW-6	Total/NA	Solid	8015 NM	
880-13931-19	SW-7	Total/NA	Solid	8015 NM	
880-13931-20	SW-8	Total/NA	Solid	8015 NM	
880-13931-21	SW-9	Total/NA	Solid	8015 NM	
880-13931-22	SW-10	Total/NA	Solid	8015 NM	
880-13931-23	SW-11	Total/NA	Solid	8015 NM	
880-13931-24	SW-12	Total/NA	Solid	8015 NM	
880-13931-27	SW-15	Total/NA	Solid	8015 NM	
880-13931-28	SW-16	Total/NA	Solid	8015 NM	

## Analysis Batch: 24094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-23	SW-11	Total/NA	Solid	8015B NM	23947
880-13931-24	SW-12	Total/NA	Solid	8015B NM	23947
880-13931-27	SW-15	Total/NA	Solid	8015B NM	23947
880-13931-28	SW-16	Total/NA	Solid	8015B NM	23947
MB 880-23947/1-A	Method Blank	Total/NA	Solid	8015B NM	23947
LCS 880-23947/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23947
LCSD 880-23947/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23947

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-13931-1  
SDG: Lea Co., NM

## GC Semi VOA (Continued)

## Analysis Batch: 24094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2221-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	23947
890-2221-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23947

## HPLC/IC

## Leach Batch: 23916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-1	SS-1	Soluble	Solid	DI Leach	
880-13931-4	SS-4	Soluble	Solid	DI Leach	
880-13931-5	SS-5	Soluble	Solid	DI Leach	
880-13931-6	SS-6	Soluble	Solid	DI Leach	
880-13931-7	SS-8	Soluble	Solid	DI Leach	
880-13931-8	SS-9	Soluble	Solid	DI Leach	
880-13931-9	SS-10	Soluble	Solid	DI Leach	
880-13931-10	SS-11	Soluble	Solid	DI Leach	
880-13931-12	SS-13	Soluble	Solid	DI Leach	
880-13931-13	SW-1	Soluble	Solid	DI Leach	
880-13931-18	SW-6	Soluble	Solid	DI Leach	
880-13931-19	SW-7	Soluble	Solid	DI Leach	
880-13931-20	SW-8	Soluble	Solid	DI Leach	
880-13931-21	SW-9	Soluble	Solid	DI Leach	
880-13931-25	SW-13	Soluble	Solid	DI Leach	
880-13931-26	SW-14	Soluble	Solid	DI Leach	
MB 880-23916/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23916/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23916/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13931-9 MS	SS-10	Soluble	Solid	DI Leach	
880-13931-9 MSD	SS-10	Soluble	Solid	DI Leach	

## Analysis Batch: 24346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-1	SS-1	Soluble	Solid	300.0	23916
880-13931-4	SS-4	Soluble	Solid	300.0	23916
880-13931-5	SS-5	Soluble	Solid	300.0	23916
880-13931-6	SS-6	Soluble	Solid	300.0	23916
880-13931-7	SS-8	Soluble	Solid	300.0	23916
880-13931-8	SS-9	Soluble	Solid	300.0	23916
880-13931-9	SS-10	Soluble	Solid	300.0	23916
880-13931-10	SS-11	Soluble	Solid	300.0	23916
880-13931-12	SS-13	Soluble	Solid	300.0	23916
880-13931-13	SW-1	Soluble	Solid	300.0	23916
880-13931-18	SW-6	Soluble	Solid	300.0	23916
880-13931-19	SW-7	Soluble	Solid	300.0	23916
880-13931-20	SW-8	Soluble	Solid	300.0	23916
880-13931-21	SW-9	Soluble	Solid	300.0	23916
880-13931-25	SW-13	Soluble	Solid	300.0	23916
880-13931-26	SW-14	Soluble	Solid	300.0	23916
MB 880-23916/1-A	Method Blank	Soluble	Solid	300.0	23916
LCS 880-23916/2-A	Lab Control Sample	Soluble	Solid	300.0	23916
LCSD 880-23916/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23916
880-13931-9 MS	SS-10	Soluble	Solid	300.0	23916

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### QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

#### HPLC/IC (Continued)

#### Analysis Batch: 24346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13931-9 MSD	SS-10	Soluble	Solid	300.0	23916

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-1**

**Lab Sample ID: 880-13931-1**

Date Collected: 04/19/22 14:20

Matrix: Solid

Date Received: 04/20/22 15:30

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	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 11:03	CH	XEN MID

**Client Sample ID: SS-2**

**Lab Sample ID: 880-13931-2**

Date Collected: 04/19/22 14:25

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 14:02	AJ	XEN MID

**Client Sample ID: SS-3**

**Lab Sample ID: 880-13931-3**

Date Collected: 04/19/22 14:30

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 12:56	AJ	XEN MID

**Client Sample ID: SS-4**

**Lab Sample ID: 880-13931-4**

Date Collected: 04/19/22 14:35

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 14:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 11:22	CH	XEN MID

**Client Sample ID: SS-5**

**Lab Sample ID: 880-13931-5**

Date Collected: 04/19/22 14:40

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 14:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 11:28	CH	XEN MID

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-6**

**Lab Sample ID: 880-13931-6**

Date Collected: 04/19/22 14:45

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 15:08	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 11:35	CH	XEN MID

**Client Sample ID: SS-8**

**Lab Sample ID: 880-13931-7**

Date Collected: 04/19/22 14:50

Matrix: Solid

Date Received: 04/20/22 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 11:54	CH	XEN MID

**Client Sample ID: SS-9**

**Lab Sample ID: 880-13931-8**

Date Collected: 04/19/22 14:55

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 15:30	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 12:00	CH	XEN MID

**Client Sample ID: SS-10**

**Lab Sample ID: 880-13931-9**

Date Collected: 04/19/22 15:00

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 15:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		10			24346	04/28/22 12:07	CH	XEN MID

**Client Sample ID: SS-11**

**Lab Sample ID: 880-13931-10**

Date Collected: 04/19/22 15:05

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 16:14	AJ	XEN MID

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### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SS-11**

**Lab Sample ID: 880-13931-10**

Date Collected: 04/19/22 15:05

Matrix: Solid

Date Received: 04/20/22 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 12:57	CH	XEN MID

**Client Sample ID: SS-12**

**Lab Sample ID: 880-13931-11**

Date Collected: 04/19/22 15:10

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 16:36	AJ	XEN MID

**Client Sample ID: SS-13**

**Lab Sample ID: 880-13931-12**

Date Collected: 04/19/22 15:15

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 16:58	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 13:04	CH	XEN MID

**Client Sample ID: SW-1**

**Lab Sample ID: 880-13931-13**

Date Collected: 04/19/22 15:20

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 17:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 13:10	CH	XEN MID

**Client Sample ID: SW-2**

**Lab Sample ID: 880-13931-14**

Date Collected: 04/19/22 15:25

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 18:06	AJ	XEN MID

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### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

**Client Sample ID: SW-3**

**Lab Sample ID: 880-13931-15**

Date Collected: 04/19/22 15:30

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 18:27	AJ	XEN MID

**Client Sample ID: SW-4**

**Lab Sample ID: 880-13931-16**

Date Collected: 04/19/22 15:35

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 18:49	AJ	XEN MID

**Client Sample ID: SW-5**

**Lab Sample ID: 880-13931-17**

Date Collected: 04/19/22 15:40

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 19:11	AJ	XEN MID

**Client Sample ID: SW-6**

**Lab Sample ID: 880-13931-18**

Date Collected: 04/19/22 15:45

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 19:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		10			24346	04/28/22 13:16	CH	XEN MID

**Client Sample ID: SW-7**

**Lab Sample ID: 880-13931-19**

Date Collected: 04/19/22 15:50

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 19:55	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 13:23	CH	XEN MID

### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

**Client Sample ID: SW-8**

**Lab Sample ID: 880-13931-20**

Date Collected: 04/19/22 15:55

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 20:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 13:29	CH	XEN MID

**Client Sample ID: SW-9**

**Lab Sample ID: 880-13931-21**

Date Collected: 04/19/22 16:00

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 20:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 13:35	CH	XEN MID

**Client Sample ID: SW-10**

**Lab Sample ID: 880-13931-22**

Date Collected: 04/19/22 16:05

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23863	04/20/22 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23891	04/21/22 21:00	AJ	XEN MID

**Client Sample ID: SW-11**

**Lab Sample ID: 880-13931-23**

Date Collected: 04/19/22 16:10

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 19:20	AJ	XEN MID

**Client Sample ID: SW-12**

**Lab Sample ID: 880-13931-24**

Date Collected: 04/19/22 16:15

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 19:41	AJ	XEN MID

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### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

**Client Sample ID: SW-13**

**Lab Sample ID: 880-13931-25**

Date Collected: 04/19/22 16:20

Matrix: Solid

Date Received: 04/20/22 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		1			24346	04/28/22 13:42	CH	XEN MID

**Client Sample ID: SW-14**

**Lab Sample ID: 880-13931-26**

Date Collected: 04/19/22 16:25

Matrix: Solid

Date Received: 04/20/22 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	23916	04/21/22 10:03	CH	XEN MID
Soluble	Analysis	300.0		5			24346	04/28/22 13:48	CH	XEN MID

**Client Sample ID: SW-15**

**Lab Sample ID: 880-13931-27**

Date Collected: 04/19/22 16:30

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 20:01	AJ	XEN MID

**Client Sample ID: SW-16**

**Lab Sample ID: 880-13931-28**

Date Collected: 04/19/22 16:35

Matrix: Solid

Date Received: 04/20/22 15:30

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			24016	04/22/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23947	04/21/22 14:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24094	04/23/22 20:22	AJ	XEN MID

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
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	T104704400-21-22	06-30-22

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

- 1
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### Method Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-13931-1  
SDG: Lea Co., NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

**Laboratory References:**

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



### Sample Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-13931-1  
 SDG: Lea Co., NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-13931-1	SS-1	Solid	04/19/22 14:20	04/20/22 15:30	1.5'
880-13931-2	SS-2	Solid	04/19/22 14:25	04/20/22 15:30	1.5'
880-13931-3	SS-3	Solid	04/19/22 14:30	04/20/22 15:30	3'
880-13931-4	SS-4	Solid	04/19/22 14:35	04/20/22 15:30	3'
880-13931-5	SS-5	Solid	04/19/22 14:40	04/20/22 15:30	2'
880-13931-6	SS-6	Solid	04/19/22 14:45	04/20/22 15:30	2'
880-13931-7	SS-8	Solid	04/19/22 14:50	04/20/22 15:30	2.5'
880-13931-8	SS-9	Solid	04/19/22 14:55	04/20/22 15:30	1'
880-13931-9	SS-10	Solid	04/19/22 15:00	04/20/22 15:30	1.5'
880-13931-10	SS-11	Solid	04/19/22 15:05	04/20/22 15:30	2'
880-13931-11	SS-12	Solid	04/19/22 15:10	04/20/22 15:30	2'
880-13931-12	SS-13	Solid	04/19/22 15:15	04/20/22 15:30	2.5'
880-13931-13	SW-1	Solid	04/19/22 15:20	04/20/22 15:30	2.5'
880-13931-14	SW-2	Solid	04/19/22 15:25	04/20/22 15:30	2.5'
880-13931-15	SW-3	Solid	04/19/22 15:30	04/20/22 15:30	2.5'
880-13931-16	SW-4	Solid	04/19/22 15:35	04/20/22 15:30	2.5'
880-13931-17	SW-5	Solid	04/19/22 15:40	04/20/22 15:30	2.5'
880-13931-18	SW-6	Solid	04/19/22 15:45	04/20/22 15:30	2'
880-13931-19	SW-7	Solid	04/19/22 15:50	04/20/22 15:30	2'
880-13931-20	SW-8	Solid	04/19/22 15:55	04/20/22 15:30	2'
880-13931-21	SW-9	Solid	04/19/22 16:00	04/20/22 15:30	2'
880-13931-22	SW-10	Solid	04/19/22 16:05	04/20/22 15:30	2'
880-13931-23	SW-11	Solid	04/19/22 16:10	04/20/22 15:30	2'
880-13931-24	SW-12	Solid	04/19/22 16:15	04/20/22 15:30	2'
880-13931-25	SW-13	Solid	04/19/22 16:20	04/20/22 15:30	2'
880-13931-26	SW-14	Solid	04/19/22 16:25	04/20/22 15:30	2'
880-13931-27	SW-15	Solid	04/19/22 16:30	04/20/22 15:30	2'
880-13931-28	SW-16	Solid	04/19/22 16:35	04/20/22 15:30	2'

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Environment Testing  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs NM (575) 392-7550, Carlsbad, NM (575) 998-3199

Chain of Custody

Work Order No: 13931

www.xenco.com Page 1 of 3

Project Manager:	Lindy Crain	Bill to: (if different)	Nicole Lorenwell
Company Name:	Crain Environmental	Company Name:	BXP
Address:	2925 E 17th St.	Address:	11757 Katy Fwy, Ste 475
City, State ZIP:	Odessa, TX 79761	City, State ZIP:	Houston, TX 77079
Phone:	(575) 441-7244	Email:	Lindy.Crain@gmail.com

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

Project Name:	BT A #4	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:		Due Date:	4/29/22	ANALYSIS REQUEST	
Project Location:	Lea Co, NM	TAT Starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Lindy Crain	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
PO #		Thermometer ID:	11		
SAMPLE RECEIPT			Correction Factor:		
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Heading:	58		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Corrected Temperature:	5.7		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Parameters			
Total Containers:		TPH 8015 M Chlorides			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters
SS-1	S	4/19/22	14:20	1.5'	C	1	
SS-2			14:25	1.5'			
SS-3			14:30	3'			
SS-4			14:35	3'			
SS-5			14:40	2'			
SS-6			14:45	2'			
SS-8			14:50	2.5'			
SS-9			14:55	1'			
SS-10			15:00	1.5'			
SS-11			15:05	2'			



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
Lindy Crain	Nicole Lorenwell	4/20/22 15:30			



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: 13931

www.xenco.com Page 2 of 3

Project Manager: Cindy Crain
Company Name: Crain Environmental
Address: 2925 E. 17th St.
City, State ZIP: Odessa, TX 79761
Phone: (575) 441-7244
Email: cindy.crain@gmail.com

Bill to: (if different) Nicole Cornwell
Company Name: BXP
Address: 11757 Katy Fwy, Ste 475
City, State ZIP: Houston, TX 77079
Program: UST/PST
State of Project: NM
Reporting Level II
Deliverables: EDD

Project Name: BT A #4
Project Number: -
Project Location: Lea Co, NM
Sampler's Name: Cindy Crain
Due Date: 4/29/22
TAT starts the day received by the lab, if received by 4:30pm
SAMPLE RECEIPT
Temp Blank: Yes No
Samples Received Intact: Yes No
Cooler Custody Seals: Yes No
Sample Custody Seals: Yes No
Corrected Temperature: 58
Parameters: TPH 8015M Chlorides

Table with columns: Sample Identification, Matrix, Date Sampled, Time Sampled, Depth, Grab/Cont, # of Cont, Pres. Code, ANALYSIS REQUEST, Preservative Codes, Sample Comments.

Total 20007 / 6010 20008 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 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 / 2451 / 7470 / 7471

Notes: 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): [Signature] Received by (Signature): [Signature] Date/Time: 4/20/22 15:30



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: 13931

www.xenco.com Page 3 of 3

Project Manager:	Lindy Train	Bill to: (if different)	Nicole Lovell
Company Name:	Chain Environmental	Company Name:	BXP
Address:	2925 E. 17th St.	Address:	11757 Katy Fwy, Ste 475
City, State ZIP:	Abilene, TX 79201	City, State ZIP:	Houston, TX 77079
Phone:	(515) 441-7244	Email:	Lindy.Train@amail.com

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RFC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	NM
Reporting Level:	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 <input type="checkbox"/>

Project Name:	BT A #4	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	-	Due Date:	4/29/22		
Project Location:	Lpa B, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Lindy Train				
PO #:	-				
<b>SAMPLE RECEIPT</b>	Temp Blank:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Wet Ice:	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Samples Received Intact:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Thermometer ID:			
Cooler Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Correction Factor:			
Sample Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Temperature Reading:			
Total Containers:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SW-9	S	4/19/22	1600	2'	C	1	TPH 8015 M Chlorides	None NO Cool Cool HCL, HC H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> , HP NaHSO <sub>4</sub> , NABIS Na <sub>2</sub> O <sub>3</sub> , NaSO <sub>3</sub> Zn Acetate+NaOH Zn NaOH+Ascorbic Acid SAPC	
SW-10									
SW-11									
SW-12									
SW-13									
SW-14									
SW-15									
SW-16									

Total 2007 / 6010      2008 / 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 / 2451 / 7470 / 7471

Note: 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
<i>Lindy Train</i>	<i>Nicole Lovell</i>	4/20/22			15:30

### Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-13931-1

SDG Number: Lea Co., NM

**Login Number: 13931**

**List Number: 1**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 11/28/2022 4:19:52 PM

## JOB DESCRIPTION

BT A #4  
 SDG NUMBER Lea Co., NM

## JOB NUMBER

880-21690-1

Eurofins Midland  
 1211 W. Florida Ave  
 Midland TX 79701



# Eurofins Midland

## Job Notes

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

## Authorization



Generated  
11/28/2022 4:19:52 PM

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: BT A #4

Laboratory Job ID: 880-21690-1  
SDG: Lea Co., NM

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## Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

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**Job ID: 880-21690-1**

---

**Laboratory: Eurofins Midland****Narrative****Job Narrative  
880-21690-1****Receipt**

The samples were received on 11/16/2022 4:00 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 5.5°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: TH-1 (1') (880-21690-1), TH-1 (2') (880-21690-2), TH-1 (3') (880-21690-3), TH-1 (4') (880-21690-4), TH-1 (5') (880-21690-5), TH-1 (6') (880-21690-6), TH-2 (1') (880-21690-7), TH-2 (2') (880-21690-8), TH-2 (3') (880-21690-9), TH-2 (4') (880-21690-10) and TH-2 (5') (880-21690-11).

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39927 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (880-21689-A-4-B). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: TH-1 (1') (880-21690-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The method blank for preparation batch 880-40184 and analytical batch 880-40168 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

**HPLC/IC**

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



### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

**Client Sample ID: TH-1 (1')**

**Lab Sample ID: 880-21690-1**

Date Collected: 11/14/22 10:30

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		11/18/22 12:52	11/24/22 01:16	1
Toluene	<0.000455	U F1	0.00200	0.000455	mg/Kg		11/18/22 12:52	11/24/22 01:16	1
Ethylbenzene	<0.000564	U F1	0.00200	0.000564	mg/Kg		11/18/22 12:52	11/24/22 01:16	1
m-Xylene & p-Xylene	<0.00101	U F1	0.00399	0.00101	mg/Kg		11/18/22 12:52	11/24/22 01:16	1
<b>o-Xylene</b>	<b>0.000677</b>	<b>J F1</b>	0.00200	0.000343	mg/Kg		11/18/22 12:52	11/24/22 01:16	1
Xylenes, Total	<0.00101	U F1	0.00399	0.00101	mg/Kg		11/18/22 12:52	11/24/22 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	11/18/22 12:52	11/24/22 01:16	1
1,4-Difluorobenzene (Surr)	108		70 - 130	11/18/22 12:52	11/24/22 01:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			11/28/22 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>217</b>		50.0	15.0	mg/Kg			11/23/22 11:46	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	<15.0	U	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 13:54	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>217</b>		50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 13:54	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	0.05	S1-	70 - 130	11/22/22 09:39	11/22/22 13:54	1
o-Terphenyl	0.5	S1-	70 - 130	11/22/22 09:39	11/22/22 13:54	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>107</b>		4.97	0.393	mg/Kg			11/22/22 20:12	1

**Client Sample ID: TH-1 (3')**

**Lab Sample ID: 880-21690-3**

Date Collected: 11/14/22 10:40

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		11/18/22 12:52	11/24/22 01:37	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		11/18/22 12:52	11/24/22 01:37	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		11/18/22 12:52	11/24/22 01:37	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		11/18/22 12:52	11/24/22 01:37	1
<b>o-Xylene</b>	<b>0.000374</b>	<b>J</b>	0.00201	0.000346	mg/Kg		11/18/22 12:52	11/24/22 01:37	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		11/18/22 12:52	11/24/22 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	11/18/22 12:52	11/24/22 01:37	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

**Client Sample ID: TH-1 (3')**

**Lab Sample ID: 880-21690-3**

Date Collected: 11/14/22 10:40

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 3'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	114		70 - 130	11/18/22 12:52	11/24/22 01:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			11/28/22 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	74.1		50.0	15.0	mg/Kg			11/23/22 11:46	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	27.5	J B	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 14:16	1
Diesel Range Organics (Over C10-C28)	46.6	J	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 14:16	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	11/22/22 09:39	11/22/22 14:16	1
o-Terphenyl	104		70 - 130	11/22/22 09:39	11/22/22 14:16	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.2		4.96	0.392	mg/Kg			11/22/22 20:29	1

**Client Sample ID: TH-1 (5')**

**Lab Sample ID: 880-21690-5**

Date Collected: 11/14/22 10:50

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/18/22 12:52	11/24/22 01:57	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/18/22 12:52	11/24/22 01:57	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/18/22 12:52	11/24/22 01:57	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/18/22 12:52	11/24/22 01:57	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		11/18/22 12:52	11/24/22 01:57	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		11/18/22 12:52	11/24/22 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	11/18/22 12:52	11/24/22 01:57	1
1,4-Difluorobenzene (Surr)	110		70 - 130	11/18/22 12:52	11/24/22 01:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			11/28/22 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	50.0	15.0	mg/Kg			11/23/22 11:46	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

**Client Sample ID: TH-1 (5')**  
Date Collected: 11/14/22 10:50  
Date Received: 11/16/22 16:00  
Sample Depth: 5'

**Lab Sample ID: 880-21690-5**  
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	<15.0	U	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 14:38	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 14:38	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/22/22 09:39	11/22/22 14:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				11/22/22 09:39	11/22/22 14:38	1
o-Terphenyl	89		70 - 130				11/22/22 09:39	11/22/22 14:38	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	197		5.00	0.395	mg/Kg			11/22/22 20:35	1

**Client Sample ID: TH-2 (1')**  
Date Collected: 11/14/22 11:10  
Date Received: 11/16/22 16:00  
Sample Depth: 1'

**Lab Sample ID: 880-21690-7**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		11/18/22 12:52	11/24/22 02:18	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		11/18/22 12:52	11/24/22 02:18	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		11/18/22 12:52	11/24/22 02:18	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		11/18/22 12:52	11/24/22 02:18	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		11/18/22 12:52	11/24/22 02:18	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		11/18/22 12:52	11/24/22 02:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				11/18/22 12:52	11/24/22 02:18	1
1,4-Difluorobenzene (Surr)	110		70 - 130				11/18/22 12:52	11/24/22 02:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			11/28/22 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	30.5	J	49.8	14.9	mg/Kg			11/23/22 11:46	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	30.5	J B	49.8	14.9	mg/Kg		11/22/22 09:39	11/22/22 15:00	1
Diesel Range Organics (Over C10-C28)	<14.9	U	49.8	14.9	mg/Kg		11/22/22 09:39	11/22/22 15:00	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		11/22/22 09:39	11/22/22 15:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130				11/22/22 09:39	11/22/22 15:00	1
o-Terphenyl	102		70 - 130				11/22/22 09:39	11/22/22 15:00	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

**Client Sample ID: TH-2 (1')**

**Lab Sample ID: 880-21690-7**

Date Collected: 11/14/22 11:10

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 1'

**Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76.2		5.03	0.397	mg/Kg			11/22/22 20:40	1

**Client Sample ID: TH-2 (3')**

**Lab Sample ID: 880-21690-9**

Date Collected: 11/14/22 11:20

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00767	U	0.0398	0.00767	mg/Kg		11/18/22 12:52	11/24/22 04:00	20
Toluene	<0.00908	U	0.0398	0.00908	mg/Kg		11/18/22 12:52	11/24/22 04:00	20
Ethylbenzene	0.102		0.0398	0.0113	mg/Kg		11/18/22 12:52	11/24/22 04:00	20
m-Xylene & p-Xylene	0.102		0.0797	0.0201	mg/Kg		11/18/22 12:52	11/24/22 04:00	20
o-Xylene	0.113		0.0398	0.00685	mg/Kg		11/18/22 12:52	11/24/22 04:00	20
Xylenes, Total	0.215		0.0797	0.0201	mg/Kg		11/18/22 12:52	11/24/22 04:00	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	94		70 - 130				11/18/22 12:52	11/24/22 04:00	20
1,4-Difluorobenzene (Surr)	74		70 - 130				11/18/22 12:52	11/24/22 04:00	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.317		0.0797	0.0201	mg/Kg			11/28/22 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1490		49.8	14.9	mg/Kg			11/23/22 11:46	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	259	B	49.8	14.9	mg/Kg		11/22/22 09:39	11/22/22 15:45	1
Diesel Range Organics (Over C10-C28)	1230		49.8	14.9	mg/Kg		11/22/22 09:39	11/22/22 15:45	1
Oll Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		11/22/22 09:39	11/22/22 15:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	103		70 - 130				11/22/22 09:39	11/22/22 15:45	1
o-Terphenyl	106		70 - 130				11/22/22 09:39	11/22/22 15:45	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	173		5.05	0.399	mg/Kg			11/22/22 20:46	1

### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-21690-1  
 SDG: Lea Co., NM

Client Sample ID: TH-2 (5')

Lab Sample ID: 880-21690-11

Date Collected: 11/14/22 11:30

Matrix: Solid

Date Received: 11/16/22 16:00

Sample Depth: 5'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00765	U	0.0398	0.00765	mg/Kg		11/18/22 12:52	11/24/22 04:20	20
Toluene	<0.00907	U	0.0398	0.00907	mg/Kg		11/18/22 12:52	11/24/22 04:20	20
Ethylbenzene	0.329		0.0398	0.0112	mg/Kg		11/18/22 12:52	11/24/22 04:20	20
m-Xylene & p-Xylene	0.198		0.0795	0.0201	mg/Kg		11/18/22 12:52	11/24/22 04:20	20
o-Xylene	0.279		0.0398	0.00684	mg/Kg		11/18/22 12:52	11/24/22 04:20	20
Xylenes, Total	0.477		0.0795	0.0201	mg/Kg		11/18/22 12:52	11/24/22 04:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	11/18/22 12:52	11/24/22 04:20	20
1,4-Difluorobenzene (Surr)	74		70 - 130	11/18/22 12:52	11/24/22 04:20	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.806		0.0795	0.0201	mg/Kg			11/28/22 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2970		49.9	15.0	mg/Kg			11/23/22 11:46	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	619	B	49.9	15.0	mg/Kg		11/22/22 09:39	11/22/22 16:07	1
Diesel Range Organics (Over C10-C28)	2350		49.9	15.0	mg/Kg		11/22/22 09:39	11/22/22 16:07	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/22/22 09:39	11/22/22 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	11/22/22 09:39	11/22/22 16:07	1
o-Terphenyl	106		70 - 130	11/22/22 09:39	11/22/22 16:07	1

**Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	228		5.02	0.397	mg/Kg			11/22/22 21:03	1

## Surrogate Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-21690-1  
SDG: Lea Co., NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-21690-1	TH-1 (1')	79	108
880-21690-1 MS	TH-1 (1')	91	100
880-21690-1 MSD	TH-1 (1')	96	105
880-21690-3	TH-1 (3')	93	114
880-21690-5	TH-1 (5')	93	110
880-21690-7	TH-2 (1')	90	110
880-21690-9	TH-2 (3')	94	74
880-21690-11	TH-2 (5')	105	74
LCS 880-39927/1-A	Lab Control Sample	89	106
LCSD 880-39927/2-A	Lab Control Sample Dup	90	98
MB 880-39927/5-A	Method Blank	77	102
MB 880-40279/5-A	Method Blank	77	102

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-21689-A-4-C MS	Matrix Spike	104	82
880-21689-A-4-D MSD	Matrix Spike Duplicate	112	86
880-21690-1	TH-1 (1')	0.05 S1-	0.5 S1-
880-21690-3	TH-1 (3')	115	104
880-21690-5	TH-1 (5')	95	89
880-21690-7	TH-2 (1')	111	102
880-21690-9	TH-2 (3')	103	106
880-21690-11	TH-2 (5')	115	106
LCS 880-40184/2-A	Lab Control Sample	117	105
LCSD 880-40184/3-A	Lab Control Sample Dup	98	102
MB 880-40184/1-A	Method Blank	112	107

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-21690-1  
 SDG: Lea Co., NM

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

Lab Sample ID: MB 880-39927/5-A  
 Matrix: Solid  
 Analysis Batch: 40266

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 39927

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/18/22 12:52	11/24/22 00:48	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/18/22 12:52	11/24/22 00:48	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/18/22 12:52	11/24/22 00:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		70 - 130	11/18/22 12:52	11/24/22 00:48	1
1,4-Difluorobenzene (Surr)	102		70 - 130	11/18/22 12:52	11/24/22 00:48	1

Lab Sample ID: LCS 880-39927/1-A  
 Matrix: Solid  
 Analysis Batch: 40266

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 39927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09422		mg/Kg		94	70 - 130
Toluene	0.100	0.1088		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1043		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.1874		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09251		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-39927/2-A  
 Matrix: Solid  
 Analysis Batch: 40266

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 39927

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.09072		mg/Kg		91	70 - 130	4	35
Toluene	0.100	0.1093		mg/Kg		109	70 - 130	0	35
Ethylbenzene	0.100	0.1076		mg/Kg		108	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1939		mg/Kg		97	70 - 130	3	35
o-Xylene	0.100	0.09534		mg/Kg		95	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-21690-1 MS  
 Matrix: Solid  
 Analysis Batch: 40266

Client Sample ID: TH-1 (1')  
 Prep Type: Total/NA  
 Prep Batch: 39927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000384	U	0.0996	0.07674		mg/Kg		77	70 - 130
Toluene	<0.000455	U F1	0.0996	0.07473		mg/Kg		75	70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

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

Lab Sample ID: 880-21690-1 MS  
Matrix: Solid  
Analysis Batch: 40266

Client Sample ID: TH-1 (1')  
Prep Type: Total/NA  
Prep Batch: 39927

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.000564	U F1	0.0996	0.05289	F1	mg/Kg		53	70 - 130
m-Xylene & p-Xylene	<0.00101	U F1	0.199	0.09582	F1	mg/Kg		48	70 - 130
o-Xylene	0.000677	J F1	0.0996	0.04915	F1	mg/Kg		49	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-21690-1 MSD  
Matrix: Solid  
Analysis Batch: 40266

Client Sample ID: TH-1 (1')  
Prep Type: Total/NA  
Prep Batch: 39927

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.000384	U	0.100	0.07160		mg/Kg		71	70 - 130	7	35
Toluene	<0.000455	U F1	0.100	0.06563	F1	mg/Kg		65	70 - 130	13	35
Ethylbenzene	<0.000564	U F1	0.100	0.04332	F1	mg/Kg		43	70 - 130	20	35
m-Xylene & p-Xylene	<0.00101	U F1	0.200	0.07807	F1	mg/Kg		39	70 - 130	20	35
o-Xylene	0.000677	J F1	0.100	0.04104	F1	mg/Kg		40	70 - 130	18	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-40279/5-A  
Matrix: Solid  
Analysis Batch: 40266

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 40279

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/23/22 10:46	11/23/22 13:13	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/23/22 10:46	11/23/22 13:13	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/23/22 10:46	11/23/22 13:13	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/22 10:46	11/23/22 13:13	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/23/22 10:46	11/23/22 13:13	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/22 10:46	11/23/22 13:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	77		70 - 130	11/23/22 10:46	11/23/22 13:13	1
1,4-Difluorobenzene (Surr)	102		70 - 130	11/23/22 10:46	11/23/22 13:13	1

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

Lab Sample ID: MB 880-40184/1-A  
Matrix: Solid  
Analysis Batch: 40168

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 40184

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	20.72	J	50.0	15.0	mg/Kg		11/22/22 08:19	11/22/22 08:21	1

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

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

**Lab Sample ID: MB 880-40184/1-A**  
**Matrix: Solid**  
**Analysis Batch: 40168**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 40184**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/22/22 08:19	11/22/22 08:21	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/22/22 08:19	11/22/22 08:21	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	112		70 - 130	11/22/22 08:19	11/22/22 08:21	1
o-Terphenyl	107		70 - 130	11/22/22 08:19	11/22/22 08:21	1

**Lab Sample ID: LCS 880-40184/2-A**  
**Matrix: Solid**  
**Analysis Batch: 40168**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 40184**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	979.4		mg/Kg		98	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	117		70 - 130
o-Terphenyl	105		70 - 130

**Lab Sample ID: LCSD 880-40184/3-A**  
**Matrix: Solid**  
**Analysis Batch: 40168**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 40184**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.1		mg/Kg		89	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	938.8		mg/Kg		94	70 - 130	4	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1-Chlorooctane	98		70 - 130
o-Terphenyl	102		70 - 130

**Lab Sample ID: 880-21689-A-4-C MS**  
**Matrix: Solid**  
**Analysis Batch: 40168**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 40184**

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	998	751.2		mg/Kg		75	70 - 130
Diesel Range Organics (Over C10-C28)	<14.9	U	998	888.4		mg/Kg		89	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	104		70 - 130
o-Terphenyl	82		70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

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

Lab Sample ID: 880-21689-A-4-D MSD  
Matrix: Solid  
Analysis Batch: 40168

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 40184

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	<14.9	U	996	809.0		mg/Kg		81	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<14.9	U	996	937.4		mg/Kg		94	70 - 130	5	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>		<b>MSD</b>						<b>Limits</b>	
1-Chlorooctane	112									70 - 130	
o-Terphenyl	86									70 - 130	

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

Lab Sample ID: MB 880-39834/1-A  
Matrix: Solid  
Analysis Batch: 40157

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			11/22/22 19:55	1

Lab Sample ID: LCS 880-39834/2-A  
Matrix: Solid  
Analysis Batch: 40157

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	262.5		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-39834/3-A  
Matrix: Solid  
Analysis Batch: 40157

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	260.8		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 880-21690-1 MS  
Matrix: Solid  
Analysis Batch: 40157

Client Sample ID: TH-1 (1')  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	107		249	364.6		mg/Kg		104	90 - 110

Lab Sample ID: 880-21690-1 MSD  
Matrix: Solid  
Analysis Batch: 40157

Client Sample ID: TH-1 (1')  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	107		249	363.1		mg/Kg		103	90 - 110	0	20

## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-21690-1  
SDG: Lea Co., NM

## GC VOA

## Prep Batch: 39927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Total/NA	Solid	5035	
880-21690-3	TH-1 (3')	Total/NA	Solid	5035	
880-21690-5	TH-1 (5')	Total/NA	Solid	5035	
880-21690-7	TH-2 (1')	Total/NA	Solid	5035	
880-21690-9	TH-2 (3')	Total/NA	Solid	5035	
880-21690-11	TH-2 (5')	Total/NA	Solid	5035	
MB 880-39927/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39927/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39927/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21690-1 MS	TH-1 (1')	Total/NA	Solid	5035	
880-21690-1 MSD	TH-1 (1')	Total/NA	Solid	5035	

## Analysis Batch: 40266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Total/NA	Solid	8021B	39927
880-21690-3	TH-1 (3')	Total/NA	Solid	8021B	39927
880-21690-5	TH-1 (5')	Total/NA	Solid	8021B	39927
880-21690-7	TH-2 (1')	Total/NA	Solid	8021B	39927
880-21690-9	TH-2 (3')	Total/NA	Solid	8021B	39927
880-21690-11	TH-2 (5')	Total/NA	Solid	8021B	39927
MB 880-39927/5-A	Method Blank	Total/NA	Solid	8021B	39927
MB 880-40279/5-A	Method Blank	Total/NA	Solid	8021B	40279
LCS 880-39927/1-A	Lab Control Sample	Total/NA	Solid	8021B	39927
LCSD 880-39927/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39927
880-21690-1 MS	TH-1 (1')	Total/NA	Solid	8021B	39927
880-21690-1 MSD	TH-1 (1')	Total/NA	Solid	8021B	39927

## Prep Batch: 40279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-40279/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 40484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Total/NA	Solid	Total BTEX	
880-21690-3	TH-1 (3')	Total/NA	Solid	Total BTEX	
880-21690-5	TH-1 (5')	Total/NA	Solid	Total BTEX	
880-21690-7	TH-2 (1')	Total/NA	Solid	Total BTEX	
880-21690-9	TH-2 (3')	Total/NA	Solid	Total BTEX	
880-21690-11	TH-2 (5')	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 40168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Total/NA	Solid	8015B NM	40184
880-21690-3	TH-1 (3')	Total/NA	Solid	8015B NM	40184
880-21690-5	TH-1 (5')	Total/NA	Solid	8015B NM	40184
880-21690-7	TH-2 (1')	Total/NA	Solid	8015B NM	40184
880-21690-9	TH-2 (3')	Total/NA	Solid	8015B NM	40184
880-21690-11	TH-2 (5')	Total/NA	Solid	8015B NM	40184
MB 880-40184/1-A	Method Blank	Total/NA	Solid	8015B NM	40184

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-21690-1  
SDG: Lea Co., NM

## GC Semi VOA (Continued)

## Analysis Batch: 40168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-40184/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40184
LCSD 880-40184/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40184
880-21689-A-4-C MS	Matrix Spike	Total/NA	Solid	8015B NM	40184
880-21689-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	40184

## Prep Batch: 40184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Total/NA	Solid	8015NM Prep	
880-21690-3	TH-1 (3')	Total/NA	Solid	8015NM Prep	
880-21690-5	TH-1 (5')	Total/NA	Solid	8015NM Prep	
880-21690-7	TH-2 (1')	Total/NA	Solid	8015NM Prep	
880-21690-9	TH-2 (3')	Total/NA	Solid	8015NM Prep	
880-21690-11	TH-2 (5')	Total/NA	Solid	8015NM Prep	
MB 880-40184/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40184/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40184/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-21689-A-4-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-21689-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 40295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Total/NA	Solid	8015 NM	
880-21690-3	TH-1 (3')	Total/NA	Solid	8015 NM	
880-21690-5	TH-1 (5')	Total/NA	Solid	8015 NM	
880-21690-7	TH-2 (1')	Total/NA	Solid	8015 NM	
880-21690-9	TH-2 (3')	Total/NA	Solid	8015 NM	
880-21690-11	TH-2 (5')	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 39834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Soluble	Solid	DI Leach	
880-21690-3	TH-1 (3')	Soluble	Solid	DI Leach	
880-21690-5	TH-1 (5')	Soluble	Solid	DI Leach	
880-21690-7	TH-2 (1')	Soluble	Solid	DI Leach	
880-21690-9	TH-2 (3')	Soluble	Solid	DI Leach	
880-21690-11	TH-2 (5')	Soluble	Solid	DI Leach	
MB 880-39834/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39834/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39834/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-21690-1 MS	TH-1 (1')	Soluble	Solid	DI Leach	
880-21690-1 MSD	TH-1 (1')	Soluble	Solid	DI Leach	

## Analysis Batch: 40157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-1	TH-1 (1')	Soluble	Solid	300.0	39834
880-21690-3	TH-1 (3')	Soluble	Solid	300.0	39834
880-21690-5	TH-1 (5')	Soluble	Solid	300.0	39834
880-21690-7	TH-2 (1')	Soluble	Solid	300.0	39834
880-21690-9	TH-2 (3')	Soluble	Solid	300.0	39834

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### QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

#### HPLC/IC (Continued)

#### Analysis Batch: 40157 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21690-11	TH-2 (5')	Soluble	Solid	300.0	39834
MB 880-39834/1-A	Method Blank	Soluble	Solid	300.0	39834
LCS 880-39834/2-A	Lab Control Sample	Soluble	Solid	300.0	39834
LCSD 880-39834/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39834
880-21690-1 MS	TH-1 (1')	Soluble	Solid	300.0	39834
880-21690-1 MSD	TH-1 (1')	Soluble	Solid	300.0	39834

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

**Client Sample ID: TH-1 (1')**

**Lab Sample ID: 880-21690-1**

Date Collected: 11/14/22 10:30

Matrix: Solid

Date Received: 11/16/22 16:00

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	39927	11/18/22 12:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 01:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40484	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40295	11/23/22 11:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	40184	11/22/22 09:39	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40168	11/22/22 13:54	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39834	11/17/22 14:49	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40157	11/22/22 20:12	SMC	EET MID

**Client Sample ID: TH-1 (3')**

**Lab Sample ID: 880-21690-3**

Date Collected: 11/14/22 10:40

Matrix: Solid

Date Received: 11/16/22 16:00

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	39927	11/18/22 12:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 01:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40484	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40295	11/23/22 11:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	40184	11/22/22 09:39	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40168	11/22/22 14:16	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39834	11/17/22 14:49	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40157	11/22/22 20:29	SMC	EET MID

**Client Sample ID: TH-1 (5')**

**Lab Sample ID: 880-21690-5**

Date Collected: 11/14/22 10:50

Matrix: Solid

Date Received: 11/16/22 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	39927	11/18/22 12:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 01:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40484	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40295	11/23/22 11:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40184	11/22/22 09:39	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40168	11/22/22 14:38	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39834	11/17/22 14:49	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40157	11/22/22 20:35	SMC	EET MID

**Client Sample ID: TH-2 (1')**

**Lab Sample ID: 880-21690-7**

Date Collected: 11/14/22 11:10

Matrix: Solid

Date Received: 11/16/22 16:00

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	39927	11/18/22 12:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 02:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40484	11/28/22 15:35	AJ	EET MID

Eurofins Midland

### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-21690-1  
 SDG: Lea Co., NM

**Client Sample ID: TH-2 (1')**

**Lab Sample ID: 880-21690-7**

Date Collected: 11/14/22 11:10

Matrix: Solid

Date Received: 11/16/22 16:00

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			40295	11/23/22 11:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	40184	11/22/22 09:39	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40168	11/22/22 15:00	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39834	11/17/22 14:49	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40157	11/22/22 20:40	SMC	EET MID

**Client Sample ID: TH-2 (3')**

**Lab Sample ID: 880-21690-9**

Date Collected: 11/14/22 11:20

Matrix: Solid

Date Received: 11/16/22 16:00

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	39927	11/18/22 12:52	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	40266	11/24/22 04:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40484	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40295	11/23/22 11:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	40184	11/22/22 09:39	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40168	11/22/22 15:45	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39834	11/17/22 14:49	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40157	11/22/22 20:46	SMC	EET MID

**Client Sample ID: TH-2 (5')**

**Lab Sample ID: 880-21690-11**

Date Collected: 11/14/22 11:30

Matrix: Solid

Date Received: 11/16/22 16:00

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	39927	11/18/22 12:52	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	40266	11/24/22 04:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40484	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40295	11/23/22 11:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	40184	11/22/22 09:39	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40168	11/22/22 16:07	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39834	11/17/22 14:49	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40157	11/22/22 21:03	SMC	EET MID

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-21690-1  
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	T104704400-22-24	06-30-23

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

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

- 1
- 2
- 3
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### Method Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-21690-1  
 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	MCAWW	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
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- 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: BT A #4

Job ID: 880-21690-1  
SDG: Lea Co., NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-21690-1	TH-1 (1')	Solid	11/14/22 10:30	11/16/22 16:00	1'
880-21690-3	TH-1 (3')	Solid	11/14/22 10:40	11/16/22 16:00	3'
880-21690-5	TH-1 (5')	Solid	11/14/22 10:50	11/16/22 16:00	5'
880-21690-7	TH-2 (1')	Solid	11/14/22 11:10	11/16/22 16:00	1'
880-21690-9	TH-2 (3')	Solid	11/14/22 11:20	11/16/22 16:00	3'
880-21690-11	TH-2 (5')	Solid	11/14/22 11:30	11/16/22 16:00	5'

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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: 21090

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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** Bill to: (if different) **Nicole Cornwell**

Company Name: **Crain Environmental** Company Name: **BXP**

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

City, State Zip: **Odessa, TX 79761** City, State Zip: **Houston**

Phone: **(575) 441-7244** Email: **Cindy.Crain@gmail.com**

Project Name	Project Number	Project Location	Sampler's Name	PO #	Turn Around		Pres. Code	ANALYSIS REQUEST		Preservative Codes
					<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush		Parameters	# of Cont	
BT A #4		Lea Co., NM	Cindy Crain							None NO Cool Cool HCL, HC H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> HP 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
<p><b>SAMPLE RECEIPT</b></p> <p>Samples Received Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wet Ice: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Cooler Custody Seals: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Thermometer ID: <b>118</b></p> <p>Sample Custody Seals: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Correction Factor: <b>-30</b></p> <p>Total Containers: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Temperature Reading: <b>8.8</b></p> <p>Corrected Temperature: <b>8.8</b></p>										
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Sample Comments			
TH-1 (1)	S	11/14/22	1030	1'	C	1	400			
TH-1 (2)			1035	2'			Hold			
TH-1 (3)			1040	3'			Chlorides			
TH-1 (4)			1045	4'			BTEX			
TH-1 (5)			1050	5'			TPH 8015 M			
TH-1 (6)			1055	6'						
TH-2 (1)			1110	1'						
TH-2 (2)			1115	2'						
TH-2 (3)			1120	3'						
TH-2 (4)			1125	4'						



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
<i>Cindy Crain</i>	<i>Nicole Cornwell</i>	11/16/22			



# 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: 21690

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Project Manager <i>Lindy Crain</i>	Bill to: (if different) <i>Nicole Carnell</i>
Company Name <i>Crain Environmental</i>	Company Name <i>BXP</i>
Address <i>2925 E. 17th St.</i>	Address <i>Houston</i>
City, State ZIP <i>Odessa, TX 79761</i>	City, State ZIP <i>Lindy.Crain@gmail.com</i>
Phone <i>(575) 441-7244</i>	Email <i>Lindy.Crain@gmail.com</i>

Project Name <i>BT A #4</i>	Turn Around <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code
Project Number <i>---</i>	<input checked="" type="checkbox"/> Rush	
Project Location <i>Lea Co., NM</i>	Due Date: TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name <i>Lindy Crain</i>	Temp Blank: Yes No Thermometer ID: Correction Factor	
PO #	Temp Blank: Yes No Thermometer ID: Correction Factor	

SAMPLE RECEIPT	Temp Blank:		Thermometer ID:		Temperature Reading		Corrected Temperature:		Parameters	Grab/Comp	# of Cont
	Yes	No	Yes	No	Yes	No	Yes	No			
Samples Received Intact:	Yes	No	Yes	No	Yes	No	Yes	No	TPH 8015M BTEX Chlorides	C	1
Cooler Custody Seals:	Yes	No	N/A	N/A	Yes	No	Yes	No			
Sample Custody Seals:	Yes	No	N/A	N/A	Yes	No	Yes	No			
Total Containers:	Yes	No	N/A	N/A	Yes	No	Yes	No			

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 Mh Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

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

Relinquished by (Signature)	Received by (Signature)	Date/Time	Date/Time
<i>Lindy Crain</i>	<i>[Signature]</i>	11/10/22	2
		11/00	4
			6

Revised Date: 08/25/2020 Rev 2020.2



### Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-21690-1

SDG Number: Lea Co., NM

**Login Number: 21690**

**List Number: 1**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 2/3/2023 11:14:54 AM

## JOB DESCRIPTION

BT A #4  
 SDG NUMBER Lea Co, NM

## JOB NUMBER

880-24010-1

Eurofins Midland  
 1211 W. Florida Ave  
 Midland TX 79701

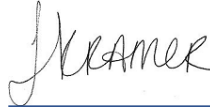


# Eurofins Midland

## Job Notes

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

## Authorization



Generated  
2/3/2023 11:14:54 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: BT A #4

Laboratory Job ID: 880-24010-1  
SDG: Lea Co, NM

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## Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

## Qualifiers

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

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**Job ID: 880-24010-1**

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**Laboratory: Eurofins Midland**

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**Narrative**

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**Job Narrative**  
**880-24010-1**

**Receipt**

The samples were received on 1/23/2023 3:30 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 2.2°C

**Receipt Exceptions**

The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

**GC Semi VOA**

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-45126 and analytical batch 880-45103 was outside the upper control limits.

Method 8015MOD\_NM: The method blank for preparation batch 880-45126 and analytical batch 880-45103 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-45126 and analytical batch 880-45103 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (880-24218-A-1-C MS). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-45145 and analytical batch 880-45222 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28).

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

**HPLC/IC**

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



### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SS-3**

**Lab Sample ID: 880-24010-1**

Date Collected: 01/17/23 14:30

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	126		50.0	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	44.1	J *1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 12:21	1
Diesel Range Organics (Over C10-C28)	63.9	*1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 12:21	1
Oil Range Organics (Over C28-C36)	17.6	J	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 12:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				01/31/23 14:03	02/02/23 12:21	1
o-Terphenyl	93		70 - 130				01/31/23 14:03	02/02/23 12:21	1

**Client Sample ID: SS-4**

**Lab Sample ID: 880-24010-2**

Date Collected: 01/17/23 14:35

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	185		49.9	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	32.0	J *1	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 13:25	1
Diesel Range Organics (Over C10-C28)	131	*1	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 13:25	1
Oil Range Organics (Over C28-C36)	21.9	J	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 13:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130				01/31/23 14:03	02/02/23 13:25	1
o-Terphenyl	73		70 - 130				01/31/23 14:03	02/02/23 13:25	1

**Client Sample ID: SS-5**

**Lab Sample ID: 880-24010-3**

Date Collected: 01/17/23 14:40

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	401		50.0	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	36.7	J *1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 13:47	1
Diesel Range Organics (Over C10-C28)	316	*1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 13:47	1
Oil Range Organics (Over C28-C36)	48.1	J	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 13:47	1

Eurofins Midland

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SS-5**

**Lab Sample ID: 880-24010-3**

Date Collected: 01/17/23 14:40

Matrix: Solid

Date Received: 01/23/23 15:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	01/31/23 14:03	02/02/23 13:47	1
o-Terphenyl	91		70 - 130	01/31/23 14:03	02/02/23 13:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5560		50.0	3.95	mg/Kg			01/30/23 01:24	10

**Client Sample ID: SS-6**

**Lab Sample ID: 880-24010-4**

Date Collected: 01/17/23 14:45

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	125		50.0	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	45.7	J *1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:08	1
Diesel Range Organics (Over C10-C28)	59.3	*1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:08	1
Oil Range Organics (Over C28-C36)	19.9	J	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	01/31/23 14:03	02/02/23 14:08	1
o-Terphenyl	90		70 - 130	01/31/23 14:03	02/02/23 14:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.0		4.97	0.393	mg/Kg			01/30/23 01:38	1

**Client Sample ID: SS-8**

**Lab Sample ID: 880-24010-5**

Date Collected: 01/17/23 14:50

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.7		4.99	0.394	mg/Kg			01/30/23 01:43	1

**Client Sample ID: SS-11**

**Lab Sample ID: 880-24010-6**

Date Collected: 01/17/23 14:55

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	195		49.9	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	34.7	J *1	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:31	1
Diesel Range Organics (Over C10-C28)	137	*1	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:31	1

Eurofins Midland

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SS-11**

**Lab Sample ID: 880-24010-6**

Date Collected: 01/17/23 14:55

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Oil Range Organics (Over C28-C36)</b>	<b>23.1</b>	<b>J</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:31	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	81		70 - 130				01/31/23 14:03	02/02/23 14:31	1
o-Terphenyl	79		70 - 130				01/31/23 14:03	02/02/23 14:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1450</b>		25.0	1.98	mg/Kg			01/30/23 01:58	5

**Client Sample ID: SS-13**

**Lab Sample ID: 880-24010-7**

Date Collected: 01/17/23 15:00

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>76.7</b>		49.9	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>34.7</b>	<b>J *1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:52	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>42.0</b>	<b>J *1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 14:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	79		70 - 130				01/31/23 14:03	02/02/23 14:52	1
o-Terphenyl	77		70 - 130				01/31/23 14:03	02/02/23 14:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>14.2</b>		4.95	0.391	mg/Kg			01/30/23 02:02	1

**Client Sample ID: SW-4**

**Lab Sample ID: 880-24010-8**

Date Collected: 01/17/23 15:05

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>122</b>		49.9	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>45.7</b>	<b>J *1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:13	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>56.3</b>	<b>*1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:13	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>19.9</b>	<b>J</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:13	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	73		70 - 130				01/31/23 14:03	02/02/23 15:13	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SW-4**

**Lab Sample ID: 880-24010-8**

Date Collected: 01/17/23 15:05

Matrix: Solid

Date Received: 01/23/23 15:30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	72		70 - 130	01/31/23 14:03	02/02/23 15:13	1

**Client Sample ID: SW-6**

**Lab Sample ID: 880-24010-9**

Date Collected: 01/17/23 15:10

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>1270</b>		49.9	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>45.7</b>	<b>J *1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:34	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>1100</b>	<b>*1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:34	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>121</b>		49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:34	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>1</i> -Chlorooctane	80		70 - 130	01/31/23 14:03	02/02/23 15:34	1			
<i>o</i> -Terphenyl	78		70 - 130	01/31/23 14:03	02/02/23 15:34	1			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>367</b>		5.04	0.398	mg/Kg			01/30/23 02:07	1

**Client Sample ID: SW-7**

**Lab Sample ID: 880-24010-10**

Date Collected: 01/17/23 15:15

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>199</b>		49.9	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>30.8</b>	<b>J *1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:55	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>138</b>	<b>*1</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:55	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>30.3</b>	<b>J</b>	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 15:55	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>1</i> -Chlorooctane	79		70 - 130	01/31/23 14:03	02/02/23 15:55	1			
<i>o</i> -Terphenyl	79		70 - 130	01/31/23 14:03	02/02/23 15:55	1			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>23.6</b>		4.99	0.394	mg/Kg			01/30/23 02:12	1

Eurofins Midland

### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SW-8**

**Lab Sample ID: 880-24010-11**

Date Collected: 01/17/23 15:20

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	191		50.0	15.0	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	37.2	J *1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 16:17	1
Diesel Range Organics (Over C10-C28)	127	*1	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 16:17	1
Oil Range Organics (Over C28-C36)	26.6	J	50.0	15.0	mg/Kg		01/31/23 14:03	02/02/23 16:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				01/31/23 14:03	02/02/23 16:17	1
o-Terphenyl	91		70 - 130				01/31/23 14:03	02/02/23 16:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.40		5.05	0.399	mg/Kg			01/30/23 02:17	1

**Client Sample ID: SW-9**

**Lab Sample ID: 880-24010-12**

Date Collected: 01/17/23 15:25

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	46.9	J	49.9	15.0	mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	31.7	J	49.9	15.0	mg/Kg		01/31/23 14:00	02/02/23 00:31	1
Diesel Range Organics (Over C10-C28)	15.2	J	49.9	15.0	mg/Kg		01/31/23 14:00	02/02/23 00:31	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:00	02/02/23 00:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				01/31/23 14:00	02/02/23 00:31	1
o-Terphenyl	101		70 - 130				01/31/23 14:00	02/02/23 00:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.6		4.97	0.393	mg/Kg			01/30/23 02:22	1

**Client Sample ID: SW-10**

**Lab Sample ID: 880-24010-13**

Date Collected: 01/17/23 15:30

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	57.2		49.9	15.0	mg/Kg			02/02/23 12:39	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SW-10**

**Lab Sample ID: 880-24010-13**

Date Collected: 01/17/23 15:30

Matrix: Solid

Date Received: 01/23/23 15:30

**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	35.7	J	49.9	15.0	mg/Kg		01/31/23 14:00	02/02/23 00:52	1
Diesel Range Organics (Over C10-C28)	21.5	J	49.9	15.0	mg/Kg		01/31/23 14:00	02/02/23 00:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:00	02/02/23 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	01/31/23 14:00	02/02/23 00:52	1
o-Terphenyl	107		70 - 130	01/31/23 14:00	02/02/23 00:52	1

**Client Sample ID: SW-11**

**Lab Sample ID: 880-24010-14**

Date Collected: 01/17/23 15:35

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	58.4		50.0	15.0	mg/Kg			02/01/23 10:03	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	25.3	J B	50.0	15.0	mg/Kg		01/31/23 13:05	02/01/23 02:13	1
Diesel Range Organics (Over C10-C28)	18.1	J	50.0	15.0	mg/Kg		01/31/23 13:05	02/01/23 02:13	1
Oil Range Organics (Over C28-C36)	15.0	J	50.0	15.0	mg/Kg		01/31/23 13:05	02/01/23 02:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	01/31/23 13:05	02/01/23 02:13	1
o-Terphenyl	99		70 - 130	01/31/23 13:05	02/01/23 02:13	1

**Client Sample ID: SW-14**

**Lab Sample ID: 880-24010-15**

Date Collected: 01/17/23 15:40

Matrix: Solid

Date Received: 01/23/23 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.9		5.00	0.395	mg/Kg			01/30/23 02:26	1

### Surrogate Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-24010-1  
 SDG: Lea Co, NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-24010-1	SS-3	92	93
880-24010-1 MS	SS-3	91	82
880-24010-1 MSD	SS-3	83	71
880-24010-2	SS-4	81	73
880-24010-3	SS-5	89	91
880-24010-4	SS-6	89	90
880-24010-6	SS-11	81	79
880-24010-7	SS-13	79	77
880-24010-8	SW-4	73	72
880-24010-9	Sw-6	80	78
880-24010-10	SW-7	79	79
880-24010-11	SW-8	88	91
880-24010-12	SW-9	96	101
880-24010-13	SW-10	113	107
880-24010-14	SW-11	93	99
880-24218-A-1-C MS	Matrix Spike	132 S1+	108
880-24218-A-1-D MSD	Matrix Spike Duplicate	100	99
890-3893-A-6-D MS	Matrix Spike	81	75
890-3893-A-6-E MSD	Matrix Spike Duplicate	98	94
LCS 880-45126/2-A	Lab Control Sample	76	87
LCS 880-45137/2-A	Lab Control Sample	95	102
LCS 880-45145/2-A	Lab Control Sample	80	75
LCSD 880-45126/3-A	Lab Control Sample Dup	84	90
LCSD 880-45137/3-A	Lab Control Sample Dup	97	104
LCSD 880-45145/3-A	Lab Control Sample Dup	92	91
MB 880-45126/1-A	Method Blank	138 S1+	161 S1+
MB 880-45137/1-A	Method Blank	113	122
MB 880-45145/1-A	Method Blank	87	91

**Surrogate Legend**

1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

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

Lab Sample ID: MB 880-45126/1-A  
Matrix: Solid  
Analysis Batch: 45103

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 45126

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	23.99	J	49.9	15.0	mg/Kg		01/31/23 13:05	01/31/23 19:55	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 13:05	01/31/23 19:55	1
Oll Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 13:05	01/31/23 19:55	1
Surrogate	MB MB		Limits			D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier		Result	Qualifier				
1-Chlorooctane	138	S1+	70 - 130				01/31/23 13:05	01/31/23 19:55	1
o-Terphenyl	161	S1+	70 - 130				01/31/23 13:05	01/31/23 19:55	1

Lab Sample ID: LCS 880-45126/2-A  
Matrix: Solid  
Analysis Batch: 45103

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 45126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
								Gasoline Range Organics (GRO)-C6-C10
Diesel Range Organics (Over C10-C28)	999	808.2		mg/Kg		81	70 - 130	
Surrogate	LCS LCS		Limits			D	%Rec	%Rec Limits
	%Recovery	Qualifier		Result	Qualifier			
1-Chlorooctane	76		70 - 130					
o-Terphenyl	87		70 - 130					

Lab Sample ID: LCSD 880-45126/3-A  
Matrix: Solid  
Analysis Batch: 45103

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 45126

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	999	929.8		mg/Kg		93	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	999	935.2		mg/Kg		94	70 - 130	15	20
Surrogate	LCSD LCSD		Limits			D	%Rec	%Rec Limits	RPD
	%Recovery	Qualifier		Result	Qualifier				
1-Chlorooctane	84		70 - 130						
o-Terphenyl	90		70 - 130						

Lab Sample ID: 890-3893-A-6-D MS  
Matrix: Solid  
Analysis Batch: 45103

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 45126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	27.9	J F2	1000	881.9		mg/Kg		85	70 - 130

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

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

**Lab Sample ID: 890-3893-A-6-D MS**  
**Matrix: Solid**  
**Analysis Batch: 45103**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 45126**

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	75		70 - 130

**Lab Sample ID: 890-3893-A-6-E MSD**  
**Matrix: Solid**  
**Analysis Batch: 45103**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 45126**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Gasoline Range Organics (GRO)-C6-C10	26.5	J B	998	902.3		mg/Kg		88	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	27.9	J F2	998	1097	F2	mg/Kg		107	70 - 130	22	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	94		70 - 130

**Lab Sample ID: MB 880-45137/1-A**  
**Matrix: Solid**  
**Analysis Batch: 45168**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 45137**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:00	02/01/23 19:48	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:00	02/01/23 19:48	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:00	02/01/23 19:48	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	113		70 - 130	01/31/23 14:00	02/01/23 19:48	1
o-Terphenyl	122		70 - 130	01/31/23 14:00	02/01/23 19:48	1

**Lab Sample ID: LCS 880-45137/2-A**  
**Matrix: Solid**  
**Analysis Batch: 45168**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 45137**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Gasoline Range Organics (GRO)-C6-C10	999	897.4		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	999	924.5		mg/Kg		93	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	102		70 - 130

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-24010-1  
 SDG: Lea Co, NM

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

**Lab Sample ID: LCSD 880-45137/3-A**  
**Matrix: Solid**  
**Analysis Batch: 45168**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 45137**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	999	879.1		mg/Kg		88	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	999	925.2		mg/Kg		93	70 - 130	0	20
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>				<b>Limits</b>		
1-Chlorooctane		97					70 - 130		
o-Terphenyl		104					70 - 130		

**Lab Sample ID: 880-24218-A-1-C MS**  
**Matrix: Solid**  
**Analysis Batch: 45168**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 45137**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	35.0	J	1000	1016		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	18.0	J	1000	1028		mg/Kg		101	70 - 130
<b>Surrogate</b>		<b>%Recovery</b>		<b>Qualifier</b>				<b>Limits</b>	
1-Chlorooctane		132		S1+				70 - 130	
o-Terphenyl		108						70 - 130	

**Lab Sample ID: 880-24218-A-1-D MSD**  
**Matrix: Solid**  
**Analysis Batch: 45168**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 45137**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	35.0	J	998	915.8		mg/Kg		88	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	18.0	J	998	923.5		mg/Kg		91	70 - 130	11	20
<b>Surrogate</b>		<b>%Recovery</b>		<b>Qualifier</b>				<b>Limits</b>			
1-Chlorooctane		100						70 - 130			
o-Terphenyl		99						70 - 130			

**Lab Sample ID: MB 880-45145/1-A**  
**Matrix: Solid**  
**Analysis Batch: 45222**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 45145**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		01/31/23 14:03	02/02/23 09:48	1

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### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-24010-1  
 SDG: Lea Co, NM

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

**Lab Sample ID: MB 880-45145/1-A**  
**Matrix: Solid**  
**Analysis Batch: 45222**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 45145**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	87		70 - 130	01/31/23 14:03	02/02/23 09:48	1
o-Terphenyl	91		70 - 130	01/31/23 14:03	02/02/23 09:48	1

**Lab Sample ID: LCS 880-45145/2-A**  
**Matrix: Solid**  
**Analysis Batch: 45222**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 45145**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	999	716.6		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	999	910.1		mg/Kg		91	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	80		70 - 130
o-Terphenyl	75		70 - 130

**Lab Sample ID: LCSD 880-45145/3-A**  
**Matrix: Solid**  
**Analysis Batch: 45222**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 45145**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	999	1055	*1	mg/Kg		106	70 - 130	38	20
Diesel Range Organics (Over C10-C28)	999	1157	*1	mg/Kg		116	70 - 130	24	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	92		70 - 130
o-Terphenyl	91		70 - 130

**Lab Sample ID: 880-24010-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 45222**

**Client Sample ID: SS-3**  
**Prep Type: Total/NA**  
**Prep Batch: 45145**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	44.1	J *1	1000	878.8		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	63.9	*1	1000	976.1		mg/Kg		91	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	91		70 - 130
o-Terphenyl	82		70 - 130

### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-24010-1  
 SDG: Lea Co, NM

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

Lab Sample ID: 880-24010-1 MSD  
 Matrix: Solid  
 Analysis Batch: 45222

Client Sample ID: SS-3  
 Prep Type: Total/NA  
 Prep Batch: 45145

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	44.1	J *1	998	744.8		mg/Kg		70	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	63.9	*1	998	831.4		mg/Kg		77	70 - 130	16	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>		<b>MSD</b>							
1-Chlorooctane	83								70 - 130		
o-Terphenyl	71								70 - 130		

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

Lab Sample ID: MB 880-44784/1-A  
 Matrix: Solid  
 Analysis Batch: 45020

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			01/30/23 00:02	1

Lab Sample ID: LCS 880-44784/2-A  
 Matrix: Solid  
 Analysis Batch: 45020

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	264.5		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-44784/3-A  
 Matrix: Solid  
 Analysis Batch: 45020

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	264.9		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-24010-3 MS  
 Matrix: Solid  
 Analysis Batch: 45020

Client Sample ID: SS-5  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5560		2500	7923		mg/Kg		94	90 - 110

Lab Sample ID: 880-24010-3 MSD  
 Matrix: Solid  
 Analysis Batch: 45020

Client Sample ID: SS-5  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5560		2500	8002		mg/Kg		97	90 - 110	1	20

## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-24010-1  
SDG: Lea Co, NM

## GC Semi VOA

## Analysis Batch: 45103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-14	SW-11	Total/NA	Solid	8015B NM	45126
MB 880-45126/1-A	Method Blank	Total/NA	Solid	8015B NM	45126
LCS 880-45126/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45126
LCSD 880-45126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45126
890-3893-A-6-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45126
890-3893-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45126

## Prep Batch: 45126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-14	SW-11	Total/NA	Solid	8015NM Prep	
MB 880-45126/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45126/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3893-A-6-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3893-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Prep Batch: 45137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-12	SW-9	Total/NA	Solid	8015NM Prep	
880-24010-13	SW-10	Total/NA	Solid	8015NM Prep	
MB 880-45137/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45137/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45137/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24218-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24218-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Prep Batch: 45145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-1	SS-3	Total/NA	Solid	8015NM Prep	
880-24010-2	SS-4	Total/NA	Solid	8015NM Prep	
880-24010-3	SS-5	Total/NA	Solid	8015NM Prep	
880-24010-4	SS-6	Total/NA	Solid	8015NM Prep	
880-24010-6	SS-11	Total/NA	Solid	8015NM Prep	
880-24010-7	SS-13	Total/NA	Solid	8015NM Prep	
880-24010-8	SS-4	Total/NA	Solid	8015NM Prep	
880-24010-9	SS-6	Total/NA	Solid	8015NM Prep	
880-24010-10	SS-7	Total/NA	Solid	8015NM Prep	
880-24010-11	SW-8	Total/NA	Solid	8015NM Prep	
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24010-1 MS	SS-3	Total/NA	Solid	8015NM Prep	
880-24010-1 MSD	SS-3	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 45168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-12	SW-9	Total/NA	Solid	8015B NM	45137
880-24010-13	SW-10	Total/NA	Solid	8015B NM	45137
MB 880-45137/1-A	Method Blank	Total/NA	Solid	8015B NM	45137
LCS 880-45137/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45137
LCSD 880-45137/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45137

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-24010-1  
SDG: Lea Co, NM

## GC Semi VOA (Continued)

## Analysis Batch: 45168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24218-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45137
880-24218-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45137

## Analysis Batch: 45181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-1	SS-3	Total/NA	Solid	8015 NM	
880-24010-2	SS-4	Total/NA	Solid	8015 NM	
880-24010-3	SS-5	Total/NA	Solid	8015 NM	
880-24010-4	SS-6	Total/NA	Solid	8015 NM	
880-24010-6	SS-11	Total/NA	Solid	8015 NM	
880-24010-7	SS-13	Total/NA	Solid	8015 NM	
880-24010-8	SS-4	Total/NA	Solid	8015 NM	
880-24010-9	SS-6	Total/NA	Solid	8015 NM	
880-24010-10	SS-7	Total/NA	Solid	8015 NM	
880-24010-11	SW-8	Total/NA	Solid	8015 NM	
880-24010-12	SW-9	Total/NA	Solid	8015 NM	
880-24010-13	SW-10	Total/NA	Solid	8015 NM	
880-24010-14	SW-11	Total/NA	Solid	8015 NM	

## Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-1	SS-3	Total/NA	Solid	8015B NM	45145
880-24010-2	SS-4	Total/NA	Solid	8015B NM	45145
880-24010-3	SS-5	Total/NA	Solid	8015B NM	45145
880-24010-4	SS-6	Total/NA	Solid	8015B NM	45145
880-24010-6	SS-11	Total/NA	Solid	8015B NM	45145
880-24010-7	SS-13	Total/NA	Solid	8015B NM	45145
880-24010-8	SS-4	Total/NA	Solid	8015B NM	45145
880-24010-9	SS-6	Total/NA	Solid	8015B NM	45145
880-24010-10	SS-7	Total/NA	Solid	8015B NM	45145
880-24010-11	SW-8	Total/NA	Solid	8015B NM	45145
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015B NM	45145
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45145
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45145
880-24010-1 MS	SS-3	Total/NA	Solid	8015B NM	45145
880-24010-1 MSD	SS-3	Total/NA	Solid	8015B NM	45145

## HPLC/IC

## Leach Batch: 44784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-3	SS-5	Soluble	Solid	DI Leach	
880-24010-4	SS-6	Soluble	Solid	DI Leach	
880-24010-5	SS-8	Soluble	Solid	DI Leach	
880-24010-6	SS-11	Soluble	Solid	DI Leach	
880-24010-7	SS-13	Soluble	Solid	DI Leach	
880-24010-9	SS-6	Soluble	Solid	DI Leach	
880-24010-10	SS-7	Soluble	Solid	DI Leach	
880-24010-11	SW-8	Soluble	Solid	DI Leach	
880-24010-12	SW-9	Soluble	Solid	DI Leach	
880-24010-15	SW-14	Soluble	Solid	DI Leach	

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### QC Association Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-24010-1  
 SDG: Lea Co, NM

#### HPLC/IC (Continued)

##### Leach Batch: 44784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44784/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44784/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44784/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-24010-3 MS	SS-5	Soluble	Solid	DI Leach	
880-24010-3 MSD	SS-5	Soluble	Solid	DI Leach	

##### Analysis Batch: 45020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24010-3	SS-5	Soluble	Solid	300.0	44784
880-24010-4	SS-6	Soluble	Solid	300.0	44784
880-24010-5	SS-8	Soluble	Solid	300.0	44784
880-24010-6	SS-11	Soluble	Solid	300.0	44784
880-24010-7	SS-13	Soluble	Solid	300.0	44784
880-24010-9	SS-6	Soluble	Solid	300.0	44784
880-24010-10	SS-7	Soluble	Solid	300.0	44784
880-24010-11	SW-8	Soluble	Solid	300.0	44784
880-24010-12	SW-9	Soluble	Solid	300.0	44784
880-24010-15	SW-14	Soluble	Solid	300.0	44784
MB 880-44784/1-A	Method Blank	Soluble	Solid	300.0	44784
LCS 880-44784/2-A	Lab Control Sample	Soluble	Solid	300.0	44784
LCSD 880-44784/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44784
880-24010-3 MS	SS-5	Soluble	Solid	300.0	44784
880-24010-3 MSD	SS-5	Soluble	Solid	300.0	44784

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SS-3**

**Lab Sample ID: 880-24010-1**

Date Collected: 01/17/23 14:30

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 12:21	AJ	EET MID

**Client Sample ID: SS-4**

**Lab Sample ID: 880-24010-2**

Date Collected: 01/17/23 14:35

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 13:25	AJ	EET MID

**Client Sample ID: SS-5**

**Lab Sample ID: 880-24010-3**

Date Collected: 01/17/23 14:40

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 13:47	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		10			45020	01/30/23 01:24	CH	EET MID

**Client Sample ID: SS-6**

**Lab Sample ID: 880-24010-4**

Date Collected: 01/17/23 14:45

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 14:08	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 01:38	CH	EET MID

**Client Sample ID: SS-8**

**Lab Sample ID: 880-24010-5**

Date Collected: 01/17/23 14:50

Matrix: Solid

Date Received: 01/23/23 15:30

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	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 01:43	CH	EET MID

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SS-11**

**Lab Sample ID: 880-24010-6**

Date Collected: 01/17/23 14:55

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 14:31	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		5			45020	01/30/23 01:58	CH	EET MID

**Client Sample ID: SS-13**

**Lab Sample ID: 880-24010-7**

Date Collected: 01/17/23 15:00

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 14:52	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 02:02	CH	EET MID

**Client Sample ID: SS-4**

**Lab Sample ID: 880-24010-8**

Date Collected: 01/17/23 15:05

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 15:13	AJ	EET MID

**Client Sample ID: SS-6**

**Lab Sample ID: 880-24010-9**

Date Collected: 01/17/23 15:10

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 15:34	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 02:07	CH	EET MID

**Client Sample ID: SS-7**

**Lab Sample ID: 880-24010-10**

Date Collected: 01/17/23 15:15

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 15:55	AJ	EET MID

Eurofins Midland

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SS-7**

**Lab Sample ID: 880-24010-10**

Date Collected: 01/17/23 15:15

Matrix: Solid

Date Received: 01/23/23 15:30

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	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 02:12	CH	EET MID

**Client Sample ID: SW-8**

**Lab Sample ID: 880-24010-11**

Date Collected: 01/17/23 15:20

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/03/23 11:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45145	01/31/23 14:03	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 16:17	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 02:17	CH	EET MID

**Client Sample ID: SW-9**

**Lab Sample ID: 880-24010-12**

Date Collected: 01/17/23 15:25

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/02/23 12:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 00:31	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 02:22	CH	EET MID

**Client Sample ID: SW-10**

**Lab Sample ID: 880-24010-13**

Date Collected: 01/17/23 15:30

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/02/23 12:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 00:52	AJ	EET MID

**Client Sample ID: SW-11**

**Lab Sample ID: 880-24010-14**

Date Collected: 01/17/23 15:35

Matrix: Solid

Date Received: 01/23/23 15:30

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			45181	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 02:13	SM	EET MID

Eurofins Midland

### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

**Client Sample ID: SW-14**

**Lab Sample ID: 880-24010-15**

Date Collected: 01/17/23 15:40

Matrix: Solid

Date Received: 01/23/23 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	44784	01/26/23 08:17	CH	EET MID
Soluble	Analysis	300.0		1			45020	01/30/23 02:26	CH	EET MID

**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: BT A #4

Job ID: 880-24010-1  
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	T104704400-22-25	06-30-23

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

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### Method Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

Method	Method Description	Protocol	Laboratory
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
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.

**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: BT A #4

Job ID: 880-24010-1  
SDG: Lea Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24010-1	SS-3	Solid	01/17/23 14:30	01/23/23 15:30
880-24010-2	SS-4	Solid	01/17/23 14:35	01/23/23 15:30
880-24010-3	SS-5	Solid	01/17/23 14:40	01/23/23 15:30
880-24010-4	SS-6	Solid	01/17/23 14:45	01/23/23 15:30
880-24010-5	SS-8	Solid	01/17/23 14:50	01/23/23 15:30
880-24010-6	SS-11	Solid	01/17/23 14:55	01/23/23 15:30
880-24010-7	SS-13	Solid	01/17/23 15:00	01/23/23 15:30
880-24010-8	SS-4	Solid	01/17/23 15:05	01/23/23 15:30
880-24010-9	SS-6	Solid	01/17/23 15:10	01/23/23 15:30
880-24010-10	SS-7	Solid	01/17/23 15:15	01/23/23 15:30
880-24010-11	SW-8	Solid	01/17/23 15:20	01/23/23 15:30
880-24010-12	SW-9	Solid	01/17/23 15:25	01/23/23 15:30
880-24010-13	SW-10	Solid	01/17/23 15:30	01/23/23 15:30
880-24010-14	SW-11	Solid	01/17/23 15:35	01/23/23 15:30
880-24010-15	SW-14	Solid	01/17/23 15:40	01/23/23 15:30

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Environment Testing  
Xenco

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

Chain of Custody

Work Order No:

24010

www.xenco.com Page 1 of 2

Project Manager	Lindy Crain	Bill to: (if different)	Nicole Larnell
Company Name	Lrain Environmental	Company Name	BP (Newville byethan)
Address	2925 E. 17th St.	Address	11757 Katy Fwy, Ste. 475
City, State ZIP	Odessa, TX 79761	City, State ZIP	Houston, TX 77079
Phone	(575) 441-7244	Email	Lindy.Crain@gmail.com

Program	UST/PST <input type="checkbox"/> PFP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project	NM
Reporting Level	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"/> AD&PT <input type="checkbox"/> Other <input type="checkbox"/>

Project Number	Project Location	Turn Around	Pres. Code	ANALYSIS REQUEST		Preservative Codes
				<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush	
BT A # 4	Lea Co, NM	Due Date 1/30/23				None NO DI Water, H <sub>2</sub> O Cool Cool MeOH Me HCL, HC HNO <sub>3</sub> HN H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub> NaOH Na H <sub>3</sub> PO <sub>4</sub> HP 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
<b>SAMPLE RECEIPT</b> Temp Blank: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Thermometer ID: <u>1028</u> Cooler Custody Seals: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Correction Factor: <u>0.3</u> Sample Custody Seals: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Temperature Reading: <u>0.5</u> Total Containers: <u>0.2</u> Corrected Temperature:						
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
SS-3	S	1/17/23	1430	3.5'	C	1
SS-4			1435	3.5'		
SS-5			1440	2.5'		
SS-6			1445	2.5'		
SS-8			1450	3'		
SS-11			1455	2.5'		
SS-13			1500	3'		
SW-4			1505	0.3.5'		
SW-6			1510	0.2.5'		
SW-7			1515	0.2.5'		

TPH 8015M  
Chlorides

Sample Comments  
yes



880-24010 Chain of Custody

Total 2007/6010	2008/6020:	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
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Lindy Crain</i>	<i>[Signature]</i>	1/25/23
		1530

Notes: 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.



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:

24010

www.xenco.com Page 2 of 2

Project Manager:	Lindy Crain	Bill to: (if different)	Nicole Penwell
Company Name:	Crain Environmental	Company Name:	BXP
Address:	2925 E. 17th St.	Address:	
City, State ZIP:	Dallas, TX 75241	City, State ZIP:	Houston
Phone:	(575) 441-7244	Email:	Lindy.Crain@gmail.com

Program:	UST/PT <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"/> AD&PT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:	BT A # 4	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	-	Due Date:	1/30/23	ANALYSIS REQUEST	
Project Location:	Lea Co. NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Lindy Crain	Thermometer ID:	TL4	Parameters	
PO #:		Correction Factor:	0.3	TPH 8015M	
SAMPLE RECEIPT	Temp Blank: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Well Ice	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Chlorides	
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	85		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Corrected Temperature:	82		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Total Containers:					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Sample Comments
SW-8	S	1/17/23	1520	0-2.5'	C	1	
SW-9			1525	0-2.5'		1	
SW-10			1530	0-2.5'		1	
SW-11			1535	0-2.5'		1	
SW-14			1540	0-1.5'		1	

Total 200.7 / 6010 200.8 / 6020: BRCRA 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 Tl Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010 BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1/30/23			1530

### Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-24010-1

SDG Number: Lea Co, NM

**Login Number: 24010**

**List Number: 1**

**Creator: Teel, Brianna**

**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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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Cindy Crain  
Crain Environmental  
2925 E. 17th St.  
Odessa, Texas 79761  
Generated 3/2/2023 3:02:40 PM

## JOB DESCRIPTION

BT A #4  
SDG NUMBER Lea Co., NM

## JOB NUMBER

880-25166-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701



# Eurofins Midland

## Job Notes

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

## Authorization



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Client: Crain Environmental  
Project/Site: BT A #4

Laboratory Job ID: 880-25166-1  
SDG: Lea Co., NM

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## Definitions/Glossary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

## Qualifiers

## GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## 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.
α	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/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

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**Job ID: 880-25166-1**

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**Laboratory: Eurofins Midland****Narrative****Job Narrative  
880-25166-1****Receipt**

The samples were received on 2/24/2023 2:29 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 5.4°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS-3 (880-25166-1), SS-4 (880-25166-2), SW-4 (880-25166-3), SS-5 (880-25166-4), SS-6 (880-25166-5), SW-6 (880-25166-6), SW-7 (880-25166-7), SW-8 (880-25166-8) and SS-11 (880-25166-9).

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (890-4182-A-1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (890-4182-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: SS-11 (880-25166-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The method blank for preparation batch 880-47331 and analytical batch 880-47385 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-47519 and analytical batch 880-47593 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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



### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

**Client Sample ID: SS-3**

**Lab Sample ID: 880-25166-1**

Date Collected: 02/23/23 13:20

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 3.7'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	21.7	J	50.0	15.0	mg/Kg			03/01/23 14:20	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	21.7	J B	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 16:21	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 16:21	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				02/27/23 14:00	02/28/23 16:21	1
o-Terphenyl	88		70 - 130				02/27/23 14:00	02/28/23 16:21	1

**Client Sample ID: SS-4**

**Lab Sample ID: 880-25166-2**

Date Collected: 02/23/23 13:25

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 3.7'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	30.9	J	49.9	15.0	mg/Kg			03/01/23 14:20	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	30.9	J B	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 16:43	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 16:43	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				02/27/23 14:00	02/28/23 16:43	1
o-Terphenyl	85		70 - 130				02/27/23 14:00	02/28/23 16:43	1

**Client Sample ID: SW-4**

**Lab Sample ID: 880-25166-3**

Date Collected: 02/23/23 13:30

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	44.9	J	50.0	15.0	mg/Kg			03/01/23 14:20	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	44.9	J B	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:04	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:04	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:04	1

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### Client Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

**Client Sample ID: SW-4**

**Lab Sample ID: 880-25166-3**

Date Collected: 02/23/23 13:30

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 0-3'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	02/27/23 14:00	02/28/23 17:04	1
o-Terphenyl	102		70 - 130	02/27/23 14:00	02/28/23 17:04	1

**Client Sample ID: SS-5**

**Lab Sample ID: 880-25166-4**

Date Collected: 02/23/23 13:35

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>459</b>		49.9	15.0	mg/Kg			03/01/23 14:20	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	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 19:17	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>459</b>		49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 19:17	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 19:17	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	85		70 - 130	02/27/23 14:00	02/28/23 19:17	1			
o-Terphenyl	82		70 - 130	02/27/23 14:00	02/28/23 19:17	1			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1690</b>		25.0	1.98	mg/Kg			03/02/23 11:33	5

**Client Sample ID: SS-6**

**Lab Sample ID: 880-25166-5**

Date Collected: 02/23/23 13:40

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>46.8</b>	<b>J</b>	49.9	15.0	mg/Kg			03/01/23 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>46.8</b>	<b>J B</b>	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:26	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:26	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:26	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	107		70 - 130	02/27/23 14:00	02/28/23 17:26	1			
o-Terphenyl	100		70 - 130	02/27/23 14:00	02/28/23 17:26	1			

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

**Client Sample ID: SW-6**

**Lab Sample ID: 880-25166-6**

Date Collected: 02/23/23 13:45

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>1410</b>		49.9	15.0	mg/Kg			03/01/23 14:20	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	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:55	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>1410</b>		49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:55	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	86		70 - 130				02/27/23 14:00	02/28/23 18:55	1
o-Terphenyl	88		70 - 130				02/27/23 14:00	02/28/23 18:55	1

**Client Sample ID: SW-7**

**Lab Sample ID: 880-25166-7**

Date Collected: 02/23/23 13:50

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>19.6</b>	<b>J</b>	50.0	15.0	mg/Kg			03/01/23 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>19.6</b>	<b>J B</b>	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:48	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:48	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 17:48	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	89		70 - 130				02/27/23 14:00	02/28/23 17:48	1
o-Terphenyl	84		70 - 130				02/27/23 14:00	02/28/23 17:48	1

**Client Sample ID: SW-8**

**Lab Sample ID: 880-25166-8**

Date Collected: 02/23/23 13:55

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>43.2</b>	<b>J</b>	50.0	15.0	mg/Kg			03/01/23 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Gasoline Range Organics (GRO)-C6-C10</b>	<b>43.2</b>	<b>J B</b>	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:10	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:10	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:10	1

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### Client Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

**Client Sample ID: SW-8**

**Lab Sample ID: 880-25166-8**

Date Collected: 02/23/23 13:55

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 0-3'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	02/27/23 14:00	02/28/23 18:10	1
o-Terphenyl	90		70 - 130	02/27/23 14:00	02/28/23 18:10	1

**Client Sample ID: SS-11**

**Lab Sample ID: 880-25166-9**

Date Collected: 02/23/23 14:00

Matrix: Solid

Date Received: 02/24/23 14:29

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3800		50.0	15.0	mg/Kg			03/01/23 14:20	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	23.2	J B	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:32	1
Diesel Range Organics (Over C10-C28)	3780		50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:32	1
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	14	S1-	70 - 130	02/27/23 14:00	02/28/23 18:32	1
o-Terphenyl	126		70 - 130	02/27/23 14:00	02/28/23 18:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	460		4.99	0.394	mg/Kg			03/02/23 11:39	1

### Surrogate Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-25166-1	SS-3	89	88
880-25166-2	SS-4	86	85
880-25166-3	SW-4	108	102
880-25166-4	SS-5	85	82
880-25166-5	SS-6	107	100
880-25166-6	SW-6	86	88
880-25166-7	SW-7	89	84
880-25166-8	SW-8	94	90
880-25166-9	SS-11	14 S1-	126
890-4182-A-1-B MS	Matrix Spike	101	97
890-4182-A-1-C MSD	Matrix Spike Duplicate	140 S1+	113
LCS 880-47331/2-A	Lab Control Sample	77	81
LCSD 880-47331/3-A	Lab Control Sample Dup	89	85
MB 880-47331/1-A	Method Blank	105	104

**Surrogate Legend**  
 1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

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### QC Sample Results

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

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

Lab Sample ID: MB 880-47331/1-A  
 Matrix: Solid  
 Analysis Batch: 47385

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 47331

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	15.43	J	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 08:39	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 08:39	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/27/23 14:00	02/28/23 08:39	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	105		70 - 130	02/27/23 14:00	02/28/23 08:39	1
o-Terphenyl	104		70 - 130	02/27/23 14:00	02/28/23 08:39	1

Lab Sample ID: LCS 880-47331/2-A  
 Matrix: Solid  
 Analysis Batch: 47385

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 47331

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	817.2		mg/Kg		82	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	77		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: LCSD 880-47331/3-A  
 Matrix: Solid  
 Analysis Batch: 47385

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 47331

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	866.0		mg/Kg		87	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	875.2		mg/Kg		88	70 - 130	7	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	89		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-4182-A-1-B MS  
 Matrix: Solid  
 Analysis Batch: 47385

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 47331

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	19.0	J	998	888.4		mg/Kg		87	70 - 130

### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

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

Lab Sample ID: 890-4182-A-1-B MS  
Matrix: Solid  
Analysis Batch: 47385

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 47331

Surrogate	%Recovery	MS MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: 890-4182-A-1-C MSD  
Matrix: Solid  
Analysis Batch: 47385

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 47331

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
				Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	26.6	J B	997	1087		mg/Kg		106	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	19.0	J	997	1053		mg/Kg		104	70 - 130	17	20

Surrogate	%Recovery	MSD MSD Qualifier	Limits
1-Chlorooctane	140	S1+	70 - 130
o-Terphenyl	113		70 - 130

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

Lab Sample ID: MB 880-47519/1-A  
Matrix: Solid  
Analysis Batch: 47593

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			03/02/23 08:04	1

Lab Sample ID: LCS 880-47519/2-A  
Matrix: Solid  
Analysis Batch: 47593

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	249.4		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-47519/3-A  
Matrix: Solid  
Analysis Batch: 47593

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	248.5		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-25141-A-11-B MS  
Matrix: Solid  
Analysis Batch: 47593

Client Sample ID: Matrix Spike  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<0.393	U F1	249	398.0	F1	mg/Kg		160	90 - 110

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### QC Sample Results

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

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

Lab Sample ID: 880-25141-A-11-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 47593

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<0.393	U F1	249	384.9	F1	mg/Kg		155	90 - 110	3	20

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## QC Association Summary

Client: Crain Environmental  
Project/Site: BT A #4Job ID: 880-25166-1  
SDG: Lea Co., NM

## GC Semi VOA

## Prep Batch: 47331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25166-1	SS-3	Total/NA	Solid	8015NM Prep	
880-25166-2	SS-4	Total/NA	Solid	8015NM Prep	
880-25166-3	SW-4	Total/NA	Solid	8015NM Prep	
880-25166-4	SS-5	Total/NA	Solid	8015NM Prep	
880-25166-5	SS-6	Total/NA	Solid	8015NM Prep	
880-25166-6	SW-6	Total/NA	Solid	8015NM Prep	
880-25166-7	SW-7	Total/NA	Solid	8015NM Prep	
880-25166-8	SW-8	Total/NA	Solid	8015NM Prep	
880-25166-9	SS-11	Total/NA	Solid	8015NM Prep	
MB 880-47331/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47331/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCS 880-47331/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4182-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4182-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 47385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25166-1	SS-3	Total/NA	Solid	8015B NM	47331
880-25166-2	SS-4	Total/NA	Solid	8015B NM	47331
880-25166-3	SW-4	Total/NA	Solid	8015B NM	47331
880-25166-4	SS-5	Total/NA	Solid	8015B NM	47331
880-25166-5	SS-6	Total/NA	Solid	8015B NM	47331
880-25166-6	SW-6	Total/NA	Solid	8015B NM	47331
880-25166-7	SW-7	Total/NA	Solid	8015B NM	47331
880-25166-8	SW-8	Total/NA	Solid	8015B NM	47331
880-25166-9	SS-11	Total/NA	Solid	8015B NM	47331
MB 880-47331/1-A	Method Blank	Total/NA	Solid	8015B NM	47331
LCS 880-47331/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47331
LCS 880-47331/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47331
890-4182-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	47331
890-4182-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47331

## Analysis Batch: 47544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25166-1	SS-3	Total/NA	Solid	8015 NM	
880-25166-2	SS-4	Total/NA	Solid	8015 NM	
880-25166-3	SW-4	Total/NA	Solid	8015 NM	
880-25166-4	SS-5	Total/NA	Solid	8015 NM	
880-25166-5	SS-6	Total/NA	Solid	8015 NM	
880-25166-6	SW-6	Total/NA	Solid	8015 NM	
880-25166-7	SW-7	Total/NA	Solid	8015 NM	
880-25166-8	SW-8	Total/NA	Solid	8015 NM	
880-25166-9	SS-11	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 47519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25166-4	SS-5	Soluble	Solid	DI Leach	
880-25166-9	SS-11	Soluble	Solid	DI Leach	
MB 880-47519/1-A	Method Blank	Soluble	Solid	DI Leach	

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### QC Association Summary

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

#### HPLC/IC (Continued)

##### Leach Batch: 47519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-47519/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47519/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-25141-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-25141-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

##### Analysis Batch: 47593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-25166-4	SS-5	Soluble	Solid	300.0	47519
880-25166-9	SS-11	Soluble	Solid	300.0	47519
MB 880-47519/1-A	Method Blank	Soluble	Solid	300.0	47519
LCS 880-47519/2-A	Lab Control Sample	Soluble	Solid	300.0	47519
LCSD 880-47519/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47519
880-25141-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	47519
880-25141-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47519

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### Lab Chronicle

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

**Client Sample ID: SS-3**

**Lab Sample ID: 880-25166-1**

Date Collected: 02/23/23 13:20

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 16:21	SM	EET MID

**Client Sample ID: SS-4**

**Lab Sample ID: 880-25166-2**

Date Collected: 02/23/23 13:25

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 16:43	SM	EET MID

**Client Sample ID: SW-4**

**Lab Sample ID: 880-25166-3**

Date Collected: 02/23/23 13:30

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 17:04	SM	EET MID

**Client Sample ID: SS-5**

**Lab Sample ID: 880-25166-4**

Date Collected: 02/23/23 13:35

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 19:17	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47519	03/01/23 10:41	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	47593	03/02/23 11:33	CH	EET MID

**Client Sample ID: SS-6**

**Lab Sample ID: 880-25166-5**

Date Collected: 02/23/23 13:40

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 17:26	SM	EET MID

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### Lab Chronicle

Client: Crain Environmental  
 Project/Site: BT A #4

Job ID: 880-25166-1  
 SDG: Lea Co., NM

**Client Sample ID: SW-6**

**Lab Sample ID: 880-25166-6**

Date Collected: 02/23/23 13:45

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 18:55	SM	EET MID

**Client Sample ID: SW-7**

**Lab Sample ID: 880-25166-7**

Date Collected: 02/23/23 13:50

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 17:48	SM	EET MID

**Client Sample ID: SW-8**

**Lab Sample ID: 880-25166-8**

Date Collected: 02/23/23 13:55

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 18:10	SM	EET MID

**Client Sample ID: SS-11**

**Lab Sample ID: 880-25166-9**

Date Collected: 02/23/23 14:00

Matrix: Solid

Date Received: 02/24/23 14:29

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			47544	03/01/23 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47331	02/27/23 14:00	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47385	02/28/23 18:32	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	47519	03/01/23 10:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47593	03/02/23 11:39	CH	EET MID

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
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	T104704400-22-25	06-30-23

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

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### Method Summary

Client: Crain Environmental  
Project/Site: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

Method	Method Description	Protocol	Laboratory
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
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.

**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: BT A #4

Job ID: 880-25166-1  
SDG: Lea Co., NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-25166-1	SS-3	Solid	02/23/23 13:20	02/24/23 14:29	3.7'
880-25166-2	SS-4	Solid	02/23/23 13:25	02/24/23 14:29	3.7'
880-25166-3	SW-4	Solid	02/23/23 13:30	02/24/23 14:29	0-3'
880-25166-4	SS-5	Solid	02/23/23 13:35	02/24/23 14:29	3'
880-25166-5	SS-6	Solid	02/23/23 13:40	02/24/23 14:29	3'
880-25166-6	SW-6	Solid	02/23/23 13:45	02/24/23 14:29	0-3'
880-25166-7	SW-7	Solid	02/23/23 13:50	02/24/23 14:29	0-3'
880-25166-8	SW-8	Solid	02/23/23 13:55	02/24/23 14:29	0-3'
880-25166-9	SS-11	Solid	02/23/23 14:00	02/24/23 14:29	3'

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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: 25160

www.xenco.com Page 1 of 1

Project Manager: Cindy Crain  
 Company Name: Crain Environmental  
 Address: 2925 E. 17th St.  
 City, State ZIP: Odessa, TX 79761  
 Phone: (575) 441-7244 Email: Cindy.Crain@gmail.com

Bill to: (if different) Nicole Cornwell  
 Company Name: BXP  
 Address: Houston, TX

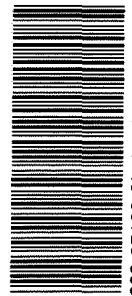
Program:  UST/PST  PRP  Brownfields  RRC  Superfund   
 State of Project: NM  
 Reporting Level II  Level III  PST/UST  TRRP  Level IV   
 Deliverables:  EDD  ADaPT  Other

Project Name: BT A # 4  
 Project Number: -  
 Project Location: Lea Co, NM  
 Sampler's Name: Cindy Crain  
 P.O # -

Turn Around:  Routine  Rush  
 Due Date: 3/3/23  
 TAT starts the day received by the lab, if received by 4:30pm

Temp Blank: Yes  No   
 Thermometer ID: 110  
 Correction Factor: -30  
 Temperature Reading: 5.7  
 Corrected Temperature: 5.4

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST		Preservative Codes
							Pres. Code	Parameters	
SS-3	S	2/23/23	1320	3.7'	C	1			None NO DI Water: H <sub>2</sub> O
SS-4	S		1325	3.7'	C	1			Cool Cool MeOH, Me
SW-4	S		1330	0.3'	C	1			HCL, HC HNO <sub>3</sub> HN
SS-5	S		1335	3'	C	1			H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> NaOH Na
SS-6	S		1340	3'	C	1			H <sub>3</sub> PO <sub>4</sub> HP NaHSO <sub>4</sub> NABIS
SW-6	S		1345	0.3'	C	1			Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO <sub>3</sub>
SW-7	S		1350	0.3'	C	1			Zn Acetate+NaOH Zn
SW-8	S		1355	0.3'	C	1			NaOH+Ascorbic Acid SACP
SS-11	S		1400	3'	C	1			



880-25166 Chain of Custody

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)	Date/Time	Received by (Signature)	Date/Time
<u>Cindy Crain</u>	<u>2/23/23</u>	<u>[Signature]</u>	<u>2/23/23</u>



### Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-25166-1

SDG Number: Lea Co., NM

**Login Number: 25166**

**List Number: 1**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mike Holder  
 Elite Environmental Services (EES)  
 PO BOX 735  
 Gainesville, Texas 76241  
 Generated 3/13/2023 4:58:00 PM

## JOB DESCRIPTION

State BTA #4  
 SDG NUMBER Lea County NM

## JOB NUMBER

890-4253-1

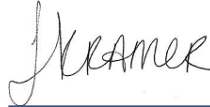


# Eurofins Carlsbad

## Job Notes

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

## Authorization



Generated  
3/13/2023 4:58:00 PM

Authorized for release by  
Jessica Kramer, Project Manager  
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Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Laboratory Job ID: 890-4253-1  
SDG: Lea County NM

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## Definitions/Glossary

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

## Qualifiers

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

### Case Narrative

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

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**Job ID: 890-4253-1**

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**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-4253-1****Receipt**

The samples were received on 3/8/2023 11:07 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS-5 (890-4253-1), SS-6 (890-4253-2) and SS-11 (890-4253-3).

**GC Semi VOA**

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-48202 and analytical batch 880-48272 was outside the upper control limits.

Method 8015MOD\_NM: The method blank for preparation batch 880-48202 and analytical batch 880-48272 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48181 and analytical batch 880-48224 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. The associated samples are: SS-5 (890-4253-1), (890-4247-A-1-A), (890-4247-A-1-B MS) and (890-4247-A-1-C MSD).

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



### Client Sample Results

Client: Elite Environmental Services (EES)  
 Project/Site: State BTA #4

Job ID: 890-4253-1  
 SDG: Lea County NM

**Client Sample ID: SS-5**

**Lab Sample ID: 890-4253-1**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

**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			03/13/23 15:13	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		03/09/23 10:55	03/10/23 16:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 16:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 16:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				03/09/23 10:55	03/10/23 16:50	1
o-Terphenyl	111		70 - 130				03/09/23 10:55	03/10/23 16:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	159		4.97		mg/Kg			03/09/23 14:35	1

**Client Sample ID: SW-6**

**Lab Sample ID: 890-4253-2**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

**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			03/13/23 15:13	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		03/09/23 10:55	03/10/23 17:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 17:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				03/09/23 10:55	03/10/23 17:13	1
o-Terphenyl	101		70 - 130				03/09/23 10:55	03/10/23 17:13	1

**Client Sample ID: SS-11**

**Lab Sample ID: 890-4253-3**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

**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			03/13/23 15:13	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		03/09/23 10:55	03/10/23 17:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/09/23 10:55	03/10/23 17:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/09/23 10:55	03/10/23 17:35	1

Eurofins Carlsbad

### Client Sample Results

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

**Client Sample ID: SS-11**

**Lab Sample ID: 890-4253-3**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1-Chlorooctane	107		70 - 130	03/09/23 10:55	03/10/23 17:35	1
o-Terphenyl	109		70 - 130	03/09/23 10:55	03/10/23 17:35	1

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### Surrogate Summary

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County 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	OTPH1
		(70-130)	(70-130)
890-4253-1	SS-5	106	111
890-4253-2	SW-6	91	101
890-4253-3	SS-11	107	109
LCS 880-48202/2-A	Lab Control Sample	102	111
LCS D 880-48202/3-A	Lab Control Sample Dup	91	103
MB 880-48202/1-A	Method Blank	158 S1+	163 S1+

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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### QC Sample Results

Client: Elite Environmental Services (EES)  
 Project/Site: State BTA #4

Job ID: 890-4253-1  
 SDG: Lea County NM

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

Lab Sample ID: MB 880-48202/1-A  
 Matrix: Solid  
 Analysis Batch: 48272

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 48202

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 08:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 08:23	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/09/23 10:55	03/10/23 08:23	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	158	S1+	70 - 130	03/09/23 10:55	03/10/23 08:23	1
o-Terphenyl	163	S1+	70 - 130	03/09/23 10:55	03/10/23 08:23	1

Lab Sample ID: LCS 880-48202/2-A  
 Matrix: Solid  
 Analysis Batch: 48272

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 48202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	1132		mg/Kg		113	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1-Chlorooctane	102		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-48202/3-A  
 Matrix: Solid  
 Analysis Batch: 48272

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 48202

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	965.1		mg/Kg		97	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	1000	1032		mg/Kg		103	70 - 130	9	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1-Chlorooctane	91		70 - 130
o-Terphenyl	103		70 - 130

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

Lab Sample ID: MB 880-48181/1-A  
 Matrix: Solid  
 Analysis Batch: 48224

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<5.00	U	5.00		mg/Kg			03/09/23 13:56	1

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### QC Sample Results

Client: Elite Environmental Services (EES)  
 Project/Site: State BTA #4

Job ID: 890-4253-1  
 SDG: Lea County NM

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

Lab Sample ID: LCS 880-48181/2-A  
 Matrix: Solid  
 Analysis Batch: 48224

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	268.4		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-48181/3-A  
 Matrix: Solid  
 Analysis Batch: 48224

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	269.3		mg/Kg		108	90 - 110	0	20

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## QC Association Summary

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

## GC Semi VOA

## Prep Batch: 48202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4253-1	SS-5	Total/NA	Solid	8015NM Prep	
890-4253-2	SW-6	Total/NA	Solid	8015NM Prep	
890-4253-3	SS-11	Total/NA	Solid	8015NM Prep	
MB 880-48202/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48202/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48202/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 48272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4253-1	SS-5	Total/NA	Solid	8015B NM	48202
890-4253-2	SW-6	Total/NA	Solid	8015B NM	48202
890-4253-3	SS-11	Total/NA	Solid	8015B NM	48202
MB 880-48202/1-A	Method Blank	Total/NA	Solid	8015B NM	48202
LCS 880-48202/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48202
LCSD 880-48202/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48202

## Analysis Batch: 48517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4253-1	SS-5	Total/NA	Solid	8015 NM	
890-4253-2	SW-6	Total/NA	Solid	8015 NM	
890-4253-3	SS-11	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 48181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4253-1	SS-5	Soluble	Solid	DI Leach	
MB 880-48181/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48181/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48181/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 48224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4253-1	SS-5	Soluble	Solid	300.0	48181
MB 880-48181/1-A	Method Blank	Soluble	Solid	300.0	48181
LCS 880-48181/2-A	Lab Control Sample	Soluble	Solid	300.0	48181
LCSD 880-48181/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48181

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### Lab Chronicle

Client: Elite Environmental Services (EES)  
 Project/Site: State BTA #4

Job ID: 890-4253-1  
 SDG: Lea County NM

**Client Sample ID: SS-5**

**Lab Sample ID: 890-4253-1**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

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			48517	03/13/23 15:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	48202	03/09/23 10:55	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48272	03/10/23 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	48181	03/09/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48224	03/09/23 14:35	SMC	EET MID

**Client Sample ID: SW-6**

**Lab Sample ID: 890-4253-2**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

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			48517	03/13/23 15:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	48202	03/09/23 10:55	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48272	03/10/23 17:13	SM	EET MID

**Client Sample ID: SS-11**

**Lab Sample ID: 890-4253-3**

Date Collected: 03/08/23 00:00

Matrix: Solid

Date Received: 03/08/23 11:07

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			48517	03/13/23 15:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	48202	03/09/23 10:55	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48272	03/10/23 17:35	SM	EET MID

**Laboratory References:**

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

### Accreditation/Certification Summary

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

#### Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

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### Method Summary

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
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
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.

**Laboratory References:**

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



### Sample Summary

Client: Elite Environmental Services (EES)  
Project/Site: State BTA #4

Job ID: 890-4253-1  
SDG: Lea County NM

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-4253-1	SS-5	Solid	03/08/23 00:00	03/08/23 11:07
890-4253-2	SW-6	Solid	03/08/23 00:00	03/08/23 11:07
890-4253-3	SS-11	Solid	03/08/23 00:00	03/08/23 11:07

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Environment Testing  
Xenco

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

Chain of Custody

\* mholder@elifeenvo.com  
\* Cindy.Crain@gmail.com

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

www.xenco.com Page 1 of 1

Project Manager: **Mike Holder** Bill to: (if different)

Company Name: **Elite Environments** Company Name:

Address: **P.O. Box 735** Address:

City, State ZIP: **Gainesville, TX** City, State ZIP:

Phone: **918-740-2746** Email: **mholder@elifeenvo.com**

Project Name: **State BTA #4** Turn Around

Project Number:  Routine  Rush

Project Location: **Lee Co. NW** Due Date: **ADay**

Sampler's Name: **Holder** TAT starts the day received by the lab, if received by 4:30pm

PO #: **BXP-#4**

**SAMPLE RECEIPT**

Samples Received Intact:  Yes  No Thermometer ID: **MW005**

Cooler Custody Seals: Yes  No  N/A Correction Factor: **-0.2**

Sample Custody Seals: Yes  No  N/A Temperature Reading: **5.2**

Total Containers: \_\_\_\_\_ Corrected Temperature: **5.0**

Temp Blank:  Yes  No Wet Ice:  Yes  No

**ANALYSIS REQUEST**

Program:  UST/PST  PRP  Brownfields  RRC  Superfund

State of Project: \_\_\_\_\_

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

Deliverables: EDD  ADAPT  Other: \_\_\_\_\_

Preservative Codes

None: NO DI Water: H<sub>2</sub>O

Cool: Cool MeOH: Me

HCL: HC HNO<sub>3</sub>: HN

H<sub>2</sub>SO<sub>4</sub>: H<sub>2</sub> NaOH: Na

H<sub>2</sub>PO<sub>4</sub>: HP

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
SS-5	5.1	3-8-23	9:30		Comp	1	X Chlorides - EPA 4500	
SS-6	20.1	3-8-23	9:40		Comp	1	X TPH - 8015M	
SS-11	20.1	3-8-23	9:50		Comp	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 Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed: TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature) \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

1. *[Signature]* Received by: (Signature) *[Signature]* Date/Time **3-8-23 10:38**

3. \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

5. \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Revised Date: 08/25/2020 Rev. 2020.2

### Login Sample Receipt Checklist

Client: Elite Environmental Services (EES)

Job Number: 890-4253-1  
SDG Number: Lea County NM

**Login Number: 4253**  
**List Number: 1**  
**Creator: Stutzman, Amanda**

**List Source: Eurofins Carlsbad**

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

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### Login Sample Receipt Checklist

Client: Elite Environmental Services (EES)

Job Number: 890-4253-1  
SDG Number: Lea County NM

**Login Number: 4253**  
**List Number: 2**  
**Creator: Teel, Brianna**

**List Source: Eurofins Midland**  
**List Creation: 03/09/23 10:55 AM**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
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").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

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## Appendix C: Photographic Documentation

Appendix B  
BXP Operating, LLC  
State BT A #004



View of well sign (9/2/21).



View of staining at Tank Battery (9/2/21).



Soil staining at water tank (9/2/21).



Barren area to south of Tank Battery (9/2/21).



Barren area to west of well pad (9/2/21).



Sample point TH-2 (11/14/22).



Sample point TH-1 (11/14/22).



Excavated area to south of well pad (4/19/22).



Excavated area to southwest of well pad (4/19/22).



Excavated area to west of well pad (4/19/22).



Excavated area to southwest of well pad (3/6/23).



View to east of backfilled excavation (4/4/23).



View to N of backfilled excavation (4/4/23).



View to E of backfilled excavation (4/4/23).



## Appendix D: NMSLO Cultural Resources Cover Sheet



Stephanie Garcia Richard, Commissioner of Public Lands  
State of New Mexico

## NMSLO Cultural Resources Cover Sheet Exhibit

**NMCRIS Activity Number:**

(if applicable)

**Exhibit Type** (select one)

**ARMS Inspection/Review** - Summarize the results (select one):

- (A) The entire area of potential effect or project area has been previously surveyed to current standards and **no cultural properties** were found within the survey area.
- (B) The entire area of potential effect or project area has been previously surveyed to current standards and **cultural properties were found** within the survey area.
- (C) The entire area of potential effect or project area has **not** been previously surveyed or **has not been surveyed** to current standards. A complete archaeological survey will be conducted and submitted for review.

**Archaeological Survey**

**Findings:**

**Negative** - No further archaeological review is required.

**Positive** - Have avoidance and protection measures been devised? Select one:

**Comments:**

**Project Details:**

NMSLO Lease Number (if available):

Cultural Resources Consultant:

Project Proponent (Applicant):

Project Title/Description:

**Project Location:**

County(ies):

PLSS/Section/Township/Range):

---

**For NMSLO Agency Use Only:**

NMSLO Lease Number:

Acknowledgment-Only:

Lease Analyst:

Date Exhibit Routed to Cultural Resources Office:

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*No person may alter the wording of the questions or layout of the cover sheet. The completion of this cover sheet by itself does not authorize anyone to engage in new surface disturbing activity before the review and approvals required by the Cultural Properties Protections Rule.*

Form Revised 12 22



## Appendix E: Biological Desktop Review



**PROJECT INFORMATION**

**Project Title:** State BT A #4  
**Project Type:** ENDANGERED SPECIES  
**Latitude/Longitude (DMS):** 33.309443 / -103.582187  
**County(s):** LEA  
**Project Description:** Soil remediation and reclamation

**REQUESTOR INFORMATION**

**Project Organization:**  
**Contact Name:** Cindy Crain  
**Email Address:** cindy.crain@gmail.com  
**Organization:** Crain Environmental  
**Address:** 2925 E 17TH ST, Odessa TX 79761  
**Phone:** 5754411724

**OVERALL STATUS**

This report contains an initial list of recommendations regarding potential impacts to wildlife or wildlife habitats from the proposed project; see the Project Recommendations section below for further details. Your project proposal is being forwarded to a New Mexico Department of Game and Fish (Department) biologist for review to determine whether there are any additional recommendations regarding the proposed actions. A Department biologist will be in touch within 30 days if there are further recommendations regarding this project proposal.

---

**About this report:**

- This environmental review is based on the project description and location that was entered. The report must be updated if the project type, area, or operational components are modified.
- This is a preliminary environmental screening assessment and report. It is not a substitute for the potential wildlife knowledge gained by having a biologist conduct a field survey of the project area. Federal status and plant data are provided as a courtesy to users. The review is also not intended to replace consultation required under the federal Endangered Species Act (ESA), including impact analyses for federal resources from the U.S. Fish and Wildlife Service (USFWS) using their [Information for Planning and Consultation tool](#).
- This report contains information on wildlife species protected under the ESA and the [Wildlife Conservation Act \(WCA\)](#), [Species of Greatest Conservation Need \(SGCN\)](#), and Species of Economic and Recreational Importance (SERI). Species listed under the ESA are protected from take at the federal level and under the WCA are protected from take at the state level. SGCN are identified in the [State Wildlife Action Plan \(SWAP\) for New Mexico](#); all of these species are considered to be of conservation concern but not all of them are protected from take at the state or federal level. The harvest of all SERI is regulated at the state level. The Department has no authority to designate critical habitat for species listed under the WCA; only the USFWS can designate critical habitat for species listed under the ESA.
- The New Mexico Environmental Review Tool (ERT) utilizes species observation locations and species habitat suitability models, both of which are subject to ongoing change and refinement. Inclusion or omission of a species within a report cannot guarantee species presence or absence within your project area. To determine occurrence of any species listed in this report, or other wildlife that may be present within your project area, onsite surveys conducted by a qualified biologist during appropriate, species-specific survey timelines may be necessary.
- The Department encourages use of the ERT to modify proposed projects for avoidance, minimization, or mitigation of wildlife impacts. However, the ERT is not intended to be used in a repeatedly iterative fashion to adjust project attributes until a previously determined recommendation is generated. The ERT serves to assess impacts once project details are developed. The [New Mexico Crucial Habitat Assessment Tool](#), the data layers from which are included in the ERT, is the appropriate system for advising early-stage project planning and design to avoid areas of anticipated wildlife concerns and associated regulatory requirements.

### State BT A #4



- |                              |                            |                                             |
|------------------------------|----------------------------|---------------------------------------------|
| Buffered Project Boundary    | NM State Forestry Division | U.S. Army Corps of Engineers                |
| Project_Boundary             | NM State Parks             | U.S. Bureau of Reclamation                  |
| Bureau of Land Management    | National Park Service      | U.S. Department of Agriculture              |
| City Land                    | Other Federal Agency       | U.S. Fish and Wildlife Service              |
| County Land                  | Other Federal Agency       | U.S. Forest Service                         |
| Department of Defense        | State Land Office          | U.S. Natural Resources Conservation Service |
| Department of Energy         | State of New Mexico        |                                             |
| NM Department of Game & Fish | Tribal Land                |                                             |

NHNM, USGS, USFS, US Census Bureau, NMDGF  
 Esri, NASA, NGA, USGS, FEMA  
 Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

**Special Status Animal Species Potentially within 1 Miles of Project Area**

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
<a href="#">Lesser Prairie-Chicken</a>	<a href="#">Tympanuchus pallidicinctus</a>	LE		SGCN	Sensitive Species		BLM SENSITIVE
<a href="#">Mountain Plover</a>	<a href="#">Charadrius montanus</a>			SGCN	Sensitive Species		BLM WATCH
<a href="#">Western Burrowing Owl</a>	<a href="#">Athene cunicularia hypugaea</a>			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
<a href="#">Common Nighthawk</a>	<a href="#">Chordeiles minor</a>			SGCN			
<a href="#">Loggerhead Shrike</a>	<a href="#">Lanius ludovicianus</a>			SGCN		USFS R3 SCC	BLM WATCH
<a href="#">Thick-billed Longspur</a>	<a href="#">Rhynchophanes mccownii</a>			SGCN			BLM SENSITIVE
<a href="#">Chestnut-Collared Longspur</a>	<a href="#">Calcarius ornatus</a>			SGCN			BLM SENSITIVE
<a href="#">Black-Tailed Prairie Dog</a>	<a href="#">Cynomys ludovicianus</a>			SGCN	Sensitive Species		BLM SENSITIVE
<a href="#">Mule Deer</a>	<a href="#">Odocoileus hemionus</a>			SERI			
<a href="#">Pronghorn</a>	<a href="#">Antilocapra americana</a>			SERI			

Common Name hyperlink takes you to species account in [bison-m.org](http://bison-m.org); Scientific Name hyperlink takes you to information in [NatureServe Explorer](#); ESA = Endangered Species Act, C = Candidate, LE = Listed Endangered, LT = Listed Threatened, XN = Non-essential Experimental Population, for other ESA codes see this [website](#); WCA = Wildlife Conservation Act, E = Endangered, T = Threatened; SERI = Species of Economic and Recreational Importance; SGCN = Species of Greatest Conservation Need; USFS = U.S. Forest Service, Sensitive Species = A species likely to occur on USFS lands that is of concern for a potential reduction in population viability; SCC = Species of Conservation Concern; BLM = Bureau of Land Management, BLM SENSITIVE = A species that occurs on BLM lands and whose viability is at risk, BLM WATCH = Species that may be added to the sensitive species list in future pending new information regarding species status.

## Project Recommendations

Your proposed project activities may require a custom review for assessment of potential effects to wildlife. See the "OVERALL STATUS" section above to determine the likelihood that your project will be reviewed further based on its location. A Department biologist will confirm whether any additional conservation measures are needed. You should expect to receive any additional project recommendations within 30 days of your project submission. If the "OVERALL STATUS" section indicates that no further consultation with the Department is required based on its location, then you will only receive additional project feedback from the Department if a biologist deems it necessary.

Our preliminary assessment indicates your project occurs in Lesser Prairie-chicken Crucial Habitat Category 1 (Focal Area).

The Lesser Prairie-chicken (*Tympanuchus pallidicinctus*) (LPC) was designated as a SGCN in New Mexico and the southern Distinct Population Segment, including populations in New Mexico and Texas, is federally listed as Endangered, though this listing has been vacated and the removal of this listing status is in process of being finalized by the USFWS. The LPC Interstate Working Group has developed the Southern Great Plains Crucial Habitat Assessment Tool ([SGP-CHAT](#)) to designate and prioritize areas for LPC conservation activities and development. Our preliminary assessment indicates your project occurs in LPC habitat. For more information on the SGP-CHAT, contact Chanda Pettie, Industry LPC Program Contact with the Western Association of Fish and Wildlife Agencies, at (719) 207-5053 or [chanda.pettie@wafwa.org](mailto:chanda.pettie@wafwa.org).

If your project has potential to lead to take (including harassment, harm, pursuit, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in these activities) of a LPC and you entered into the Candidate Conservation Agreement (CCA) or CCA with Assurances (CCAA) for the LPC with [CEHMM](#), the Department recommends you contact CEHMM (575-885-3700). If your project may lead to take of a LPC and you did not enter the CCA/A with CEHMM, the Department recommends you contact Lauren Rangel, at 505-761-4745 or [lauren\\_rangel@fws.gov](mailto:lauren_rangel@fws.gov), who is the species lead for the LPC in the Ecological Services Office with USFWS. She is also the contact for the rangewide renewable energy Habitat Conservation Plan (HCP) if relevant for your project. The Department recommends a qualified, permitted biologist conduct surveys for the LPC according to these [Lesser Prairie-chicken Survey Protocols](#) (or others recommended by USFWS) and following any training as required by USFWS.

Burrowing owl (*Athene cunicularia*) may occur within your project area. Burrowing owls are protected from take by the Migratory Bird Treaty Act and under New Mexico state statute. Before any ground disturbing activities occur, the Department recommends that a preliminary burrowing owl survey be conducted by a qualified biologist using the Department's [Burrowing Owl Survey Protocol](#). Should burrowing owls be documented in the project area, please contact the Department or USFWS for further recommendations regarding relocation or avoidance of impacts.

Prairie dog colonies may occur within the vicinity of your project area. Both black-tailed prairie dogs (*Cynomys ludovicianus*) and Gunnison's prairie dogs (*Cynomys gunnisoni*) are designated as New Mexico SGCN, and their colonies provide important habitat for other grassland wildlife. Wherever possible, occupied prairie dog colonies should be left undisturbed, and all project activities should be directed off the colony. Any burrows that are located on the project site should be surveyed by a qualified biologist to determine whether burrows are active or inactive and whether burrowing owls may be utilizing the site. Colonies within the range of the black-tailed prairie dog can be surveyed by a qualified biologist diurnally, year-round using binoculars. Colonies within the range of the Gunnison's prairie dog can be surveyed by a qualified biologist diurnally, using binoculars during the warmer months from April through October and by searching for fairly fresh scat and lack of cobwebs or debris at the mouths of burrows during the cold months (November through March). If ground-disturbing activities cannot be relocated off the prairie dog colony, or if project activities involve control of prairie dogs, the Department recommends live-trapping and relocation of prairie dogs. The Department can provide recommendations regarding suitability of potential translocation areas and procedures.

The current project area appears to contain one or more wetland types as classified by the New Mexico Environment Department's [Wetland Map](#). Information on wetlands in your project area can also be viewed on the ERT's [Create Project/Map](#) page. This [key](#) can assist in interpreting Landscape Position, landform, water flow path, and waterbody type (LLWW) codes in the ERT's wetland data. Wetlands provide important habitat for numerous species of wildlife and pollinators and provide ecosystem services, such as water filtration and storage, to downstream users. The Department recommends avoiding disturbance of wetlands whenever possible, avoiding actions or infrastructure installment that may disrupt natural wetland hydrological processes, and reseeding or replanting areas where disturbance cannot be avoided with native wetland plant species appropriate to the local wetland type. For a list of native seed providers, please see the Department's habitat handbook guideline for [Restoration and Management of Native and Non-native Trees in Southwestern Riparian Ecosystems](#). For projects involving filling wetlands under federal jurisdiction, please contact the [Army Corps of Engineers](#) for more information on permits required under the Clean Water Act.

**Disclaimers regarding recommendations:**

- The Department provides technical guidance to support the persistence of all protected species of native fish and wildlife, including game and nongame wildlife species. Species listed within this report include those that have been documented to occur within the project area, and others that may not have been documented but are projected to occur within the project vicinity.
- Recommendations are provided by the Department under the authority of § 17-1-5.1 New Mexico Statutes Annotated 1978, to provide "communication and consultation with federal and other state agencies, local governments and communities, private organizations and affected interests responsible for habitat, wilderness, recreation, water quality and environmental protection to ensure comprehensive conservation services for hunters, anglers and nonconsumptive wildlife users".
- The Department has no authority for management of plants or Important Plant Areas. The [New Mexico Endangered Plant Program](#), under the Energy, Minerals, and Natural Resources Department's Forestry Division, identifies and develops conservation measures necessary to ensure the survival of plant species within New Mexico. Plant status information is provided within this report as a courtesy to users. Recommendations provided within the ERT may not be sufficient to preclude impacts to rare or sensitive plants, unless conservation measures are identified in coordination with the Endangered Plant Program.
- Additional coordination and/or consultation may also be necessary under the federal ESA or National Environmental Policy Act (NEPA). Further site-specific mitigation recommendations may be proposed during ESA consultation and/or NEPA analyses or through coordination with affected federal agencies.

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 581213

**QUESTIONS**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2517750506
Incident Name	NAPP2517750506 STATE BT A #004 @ 30-025-40669
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-025-40669] STATE BTA #004

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	STATE BT A #004
Date Release Discovered	01/14/2023
Surface Owner	State

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
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

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Crude Oil   Released: 0 BBL (Unknown Released Amount)   Recovered: 0 BBL   Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Produced Water   Released: 537 BBL   Recovered: 0 BBL   Lost: 537 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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Phone: (505) 476-3441

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

QUESTIONS, Page 2

Action 581213

**QUESTIONS (continued)**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	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)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.</b>

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

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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

I hereby agree and sign off to the above statement	Name: Bianca Guerrero Title: Regulatory manager Email: bguerrero@bxpltd.com Date: 05/01/2026
----------------------------------------------------	-------------------------------------------------------------------------------------------------------

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 3

Action 581213

**QUESTIONS (continued)**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

**Site Characterization**  
*Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
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	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	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	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

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

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	5210
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	6220
GRO+DRO (EPA SW-846 Method 8015M)	6220
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

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

On what estimated date will the remediation commence	06/15/2026
On what date will (or did) the final sampling or liner inspection occur	07/14/2026
On what date will (or was) the remediation complete(d)	08/24/2026
What is the estimated surface area (in square feet) that will be reclaimed	10500
What is the estimated volume (in cubic yards) that will be reclaimed	200
What is the estimated surface area (in square feet) that will be remediated	10500
What is the estimated volume (in cubic yards) that will be remediated	200

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed. The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 4

Action 581213

**QUESTIONS (continued)**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

**Remediation Plan (continued)**

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

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <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	fAB0000000061 TNM-55-95
<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)	Yes
Other Non-listed Remedial Process. Please specify	The excavation was backfilled with clean soil. The soil will be excavated and stockpiled for reuse so that confirmation samples can be collected from the bottom and sidewalls of the excavation. Only soil removed from the tank battery will be hauled to disposal.

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

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

I hereby agree and sign off to the above statement	Name: Bianca Guerrero Title: Regulatory manager Email: bguerrero@bxpltd.com Date: 05/01/2026
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 581213

**QUESTIONS (continued)**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

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

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QUESTIONS, Page 6

Action 581213

**QUESTIONS (continued)**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

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

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

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CONDITIONS

Action 581213

**CONDITIONS**

Operator: BXP Operating, LLC 11757 KATY FREEWAY HOUSTON, TX 77079	OGRID: 329487
	Action Number: 581213
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	Remediation plan is approved with all the following conditions:	5/7/2026
scwells	1) On pg. 11, "Soil around sample points SS-3, SS-4, SS-6, SS-11, SW-4, SW-6, SW-7, and SW-8 was treated by spraying Bio-Regen SA1000 on the in-situ soil. All treated soil and all other excavated soil was disposed of at GMI (approximately 1,662 cubic yards), and clean soil from GMI was used as backfill". Provide waste disposal manifests verifying this to the OCD. In this instance, please email them directly to me. In the future they should be submitted as attachments to your C-141 application.	5/7/2026
scwells	2) Due to the shallow depth to groundwater at this location, all stockpiled material proposed to be used as backfill must have one 5-point composite sample collected every 25 cubic yards. All material removed from the excavations must be placed on top of a liner and photographic documentation should be included in the submitted report verifying this. In addition, photographs of how and where the aliquots were collected from each 25 cubic yard soil pile are to be included in the report. If any sample results are above the applicable Closure Criteria, that soil must be taken for disposal.	5/7/2026
scwells	3) Vertical delineation to below Table I Closure Criteria is required at SS-1, SS-2, SS-9, SS-10, and TH-2. Horizontal delineation is required to be achieved for SS-10, SS-9, TH-1, SS-1, TH-2/SS-2. Every effort must be made to remove contamination in these areas prior to requesting a deferral; horizontal and vertical delineation to below Table I Closure Criteria is required prior to requesting any deferral.	5/7/2026
scwells	4) SS-1 is located outside the tank battery and should be remediated to below Closure Criteria. A deferral here will not be approved. If the sidewall up against the tank battery can not be excavated to below Closure Criteria, that sample point may be requested for deferral.	5/7/2026
scwells	5) Pursuant to 19.15.29.12.E.(1) NMAC, photographs of the remediated site prior to backfill are required. These should be clear photographs and should be of each excavation area. Identify what sampling areas are shown in the photographs with captions.	5/7/2026
scwells	6) Any base or wall that is exposed during excavation, even due to benching and sloping, must have samples collected pursuant to 19.15.29 NMAC.	5/7/2026
scwells	7) A remediation schedule of 90 days is granted to perform the remediation and submit a report to the OCD.	5/7/2026
scwells	A complete and accurate report is due no later than 8/5/2026.	5/7/2026