AECOM

Revised Delineation Report and Remediation Plan

Amoco Federal 11 CTB
New Mexico Oil Conservation Division (NMOCD)
Incident ID No. nAPP2216547154

Prepared for:
Chevron Mid-Continent Business Unit (MCBU)

Prepared by:
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April 29, 2024

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Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

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Table of Contents

Figures

Tables

Appendices

1. Introduction

On behalf of Chevron Mid-Continent Business Unit (MCBU), AECOM Technical Services, Inc. (AECOM) has prepared this *Revised Delineation Report and Remediation Plan* to describe soil sampling results and proposed remediation activities to address soil impacts associated with a produced water release that occurred at the Amoco Federal 11 Central Tank Battery (CTB) spill site in Eddy County, New Mexico (the "Site"). This report is a revised version of the previous report submitted to the New Mexico Oil Conservation Division (NMOCD), dated August 23, 2023, and provides additional sampling data and a revised remediation plan in order to address the application rejection and comments received from the NMOCD on March 8, 2024.

2. Background

The Site is located at Latitude 32.31808478° North, Longitude 104.05284149° West, in Eddy County, New Mexico (**Figure 1**).

On June 3, 2022, a release was discovered at the Site, which included approximately 1.6 barrels (bbls) of crude oil and 4.7 bbls of produced water. The release was reported to have occurred when a two-phase liquid sump became plugged and prevented flow, causing the vessel to overflow. One bbl of crude oil was reported to have been recovered from the release area.

As required by the NMOCD under 19.15.29 New Mexico Administrative Code (NMAC), Chevron's initial response to the releases included:

- Stopping the release at the source,
- Securing the impacted soil area to protect human health and the environment,
- Containing the released produced water, and
- Recovering one bbl of crude oil.

A Release Notification C-141 Form, dated June 14, 2022, was submitted to the NMOCD. The C-141 Form documents the responsible party, location of the release source, nature, and volume of the release, and initial response to the release. The NMOCD assigned Incident ID # nAPP2216547154 to the Site release. The original C-141 Form is provided in **Appendix A**.

It should be noted that the above reported release was considered a minor release (<25 bbls) with a relatively small footprint. Based on the chloride delineation sampling results and age of the well pad, it is evident that historical impacts have been encountered while attempting to delineate this minor release, as further described in the following sections.

3. Initial Site Assessment / Characterization

The findings from an initial desktop assessment/characterization of the Site are summarized below.

- Based on an online Water Column/Average Depth to Water Report from the New Mexico Water Rights Reporting System (NMWRRS), there are no wells located closer than 782 meters, or about

2,566 feet (ft), from the Site. The average depth to groundwater for the Site area is reported to be 33 feet below ground surface (ft bgs) and the minimum depth to groundwater is reported to be 10 ft bgs (for water wells located on the opposite side of the Pecos River located west of the Site). A copy of the Water Column/Average Depth to Water Report is provided as **Appendix B**. As described in Section 4, soil boring DB-11 was drilled to a depth of 29 ft bgs on February 8, 2023, and no groundwater was observed to that depth.

- There are no continuously flowing watercourses or other significant watercourses within 300 ft of the Site.
- The Site is not located within 200 ft of any lakebed, known sinkhole, or playa lake.
- The nearest occupied permanent residence, school, hospital, institution, or church is greater than 300 ft from the Site.
- There are no known springs or wells used for domestic or stock watering purposes within 500 ft of the Site.
- There are no known freshwater wells within 1,000 ft of the Site.
- The Site is not located within incorporated municipal boundaries or defined municipal freshwater well fields.

  No wetlands are present within 300 ft of the Site.
- No subsurface mines are located beneath the Site.
- No karst geology features or other unstable areas are known to be located near the Site.
- The Site is not located within a 100-year floodplain. A Zone A flood area, associated with the Pecos River, is present along the western edge of the Site well pad approximately 100 ft west of the area impacted by the release. Federal Emergency Management Agency (FEMA) flood hazard maps are provided in **Appendix C**.
- Operations in the immediate vicinity of the Site are for oil and gas exploration, development, production, or storage only. No impacts to areas that are not associated with exploration, development, production, or storage are expected.

Figure 1 shows the location of the Site and surrounding area on a topographic map. Based on information obtained during the initial desktop assessment/characterization and the volume of produced water released and recovered, no impact to groundwater, surface water, springs, or other sources of fresh water is currently suspected.

4. Soil Delineation

On **August 23, 2022**, initial soil assessment activities were conducted at the Site, which included drilling and sampling of ten hand auger borings (B-1 through B-10) to depths of 3 to 4 ft bgs. Soil samples were collected at 1-ft intervals from each of the borings and field-screened using a photoionization detector (PID) to measure volatile organic vapor concentrations. Soil samples were chosen for laboratory analysis from select borings and depth intervals based on field observations and screening results. The samples chosen for laboratory analysis were transferred to clean, laboratory-provided sample containers, labeled, and placed on ice in laboratory-provided coolers. Chain-of-custody forms were completed, and the samples were delivered to Eurofins Environment Testing (Eurofins) in Carlsbad, New Mexico.

The initial soil samples collected in August 2022 were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8021B, total petroleum hydrocarbons (TPH) by EPA Method 8015B, and chloride by EPA Method 300.0.

Based on the initial soil sampling analytical results, additional soil delineation sampling activities were conducted as described below.

- In **November 2022**, soil delineation samples were collected from ten borings (DB-1 through DB-10) that were drilled to depths ranging from 4 to 10 ft bgs using a combination of hand auger and direct-push drilling and sampling equipment. Soil samples from select borings and depth intervals were submitted for laboratory analysis of chloride and TPH using the methods described above.
- In **February 2023**, borings DB-11 through DB-19 were drilled using air rotary drilling equipment and soil samples were collected for additional horizontal and vertical delineation of chloride-impacted soil. The drilling and sampling activities included the following:
  - Boring DB-11 was drilled to 29 ft bgs using air rotary drilling equipment;
  - Borings DB-12 through DB-14 were drilled to 10 ft bgs using air rotary drilling equipment; and
  - Borings DB-15 through DB-19 were drilled to 5 ft bgs using air rotatory drilling equipment.
- In **March 2023**, hand auger borings DB-15A through DB-15C and DB-17A through DB-17C were drilled and sampled to depths of 1 to 2 ft bgs for horizontal delineation of elevated chloride concentrations in shallow soil.

As observed in soil boring DB-11, the soils underlying the Site are comprised of very fine sand and silt to a depth of about 3 ft bgs but extending to as deep as 5 to 7 ft bgs near the south-central portion of the pad. Caliche is present from as shallow as 1.5 and extending up to 10 ft bgs. The caliche is underlain by very fine sand to a depth of about 20 ft bgs. A second caliche layer is present from about 20 to 22 ft bgs, which is underlain by fine to medium sand with caliche lenses to the bottom of the borehole at a depth of 29 ft bgs. No groundwater was observed to a depth of 29 ft bgs in boring DB-11. At the conclusion of drilling and soil sampling activities, the boreholes were backfilled and sealed near the surface with bentonite chips (upper 3 to 5 ft).

Following completion of the initial and step-out sampling events described above, and due to the expanded footprint for chloride-impacted soil and repeated return trips for additional sampling, an initial report was prepared and submitted to the NMOCD on August 23, 2023, documenting activities to date and recommending a remediation plan in which additional delineation sampling would be conducted during excavation of impacted soils. Since this approach was not accepted by the NMOCD, additional step-out soil sampling for chloride delineation was completed as follows:

- On **April 17, 2024**, six additional horizontal step-out hand auger borings (DB-19A through 19C and DB-20A through 20C) were advanced to 1 to 2 ft bgs, at locations north and northeast of the previous sample locations and estimated footprint of impacted soil.
- On **April 23, 2024**, following receipt of analytical results from the sampling conducted on April 17, 2024, samples were collected from two additional horizontal step-out sample locations (DB-19D and DB-20D) off the edge of the Amoco pad to the north and northeast.

Soil boring locations are shown on **Figure 2**. A Field Sampling Summary and Soil Boring Logs are provided in **Appendix D**. Site photographs are provided in **Appendix E**.

It is also noted that additional vertical drilling is planned upon receipt of a drilling permit with the New Mexico Office of the State Engineer (NMOSE). Since previous drilling only extended to 29 ft bgs, a deeper permitted soil boring will be advanced to 51 ft bgs to confirm the presence/absence of groundwater. If groundwater is not encountered above 51 ft bgs, a revised remediation plan will be proposed which would entail excavation to a maximum depth of 4 ft bgs since all results are below the applicable regulatory limits of 10,000 milligrams per kilogram (mg/kg) for chloride, if depth to groundwater is greater than 51 ft bgs.

4.1 Soil Delineation Sampling Results

The soil analytical results were initially compared to Table I, Closure Criteria for Soils Impacted by a Release provided in 19.15.29.12 NMAC, which includes the following:

Table I Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/L TDS	**Constituent**	**Limit**
≤ 50 feet bgs	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg
51 feet – 100 feet bgs	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Based on currently available data, it has been assumed that depth to groundwater may be less than 51 ft bgs. Therefore, the soil sampling data have been compared to the most stringent regulatory limits listed above in **Table I**. These limits are also consistent with the requirements specified for the upper four feet of impacted soil under 19.15.29.13.D.(1) NMAC for *RESTORATION, RECLAMATION AND RE-VEGETATION*.

Benzene and BTEX results were below the regulatory limits for all soil samples analyzed from the August 2022 sampling event.

Reported TPH concentrations exceeded the regulatory limit of 100 mg/kg for the 0 to 1 ft bgs depth interval in initial hand auger borings B-1, B-2, and B-4 drilled and sampled during the August 2022 sampling event.

Chloride concentrations also exceeded the applicable regulatory limit of 600 mg/kg for soil samples collected from several of the hand auger soil borings drilled in August 2022. As described above, additional delineation sampling activities were conducted in November 2022, February 2023, and March 2023, and then later in April 2024.

As shown on **Figure 3A**, the horizontal extent of TPH concentrations above 100 mg/kg is delineated to the west by boring B-3, to the north by boring DB-6, to the east by boring B-8, and to the south by boring B-9.

As shown on **Figure 3B**, the horizontal extent of chloride concentrations above 600 mg/kg is delineated to the west by borings B-3 and DB-3, to the north of the subject spill area by borings DB-5 and B-5, to the east of the subject spill area by boring DB-18, and to the south by borings B-2 and DB-17B. The vertical extent of chloride concentrations is delineated by the sample collected from the 10 to 12 ft depth interval from boring DB-11, which exhibited a chloride concentration of 454 mg/kg.

Based on the results for additional step-out samples collected on April 23, 2024, the horizontal extent of chloride concentrations above 600 mg/kg is delineated to the north by boring DB-20D and to the northeast by boring DB-19D.

The laboratory results are summarized in **Table 1** and the laboratory analytical reports are provided in **Appendix E**.

5. Site Assessment/Delineation Sampling Conclusions

The Site assessment and soil delineation results include the following:

- No sensitive environmental and/or ecological receptors were identified within the search criteria distances described in 19.15.29.11 and 19.15.29.12.C.(4) NMAC.
- Benzene and BTEX results were below the regulatory limits for all soil samples analyzed.
- Reported TPH concentrations exceeded the regulatory limit of 100 mg/kg for the 0 to 1 ft bgs depth interval in initial hand auger borings B-1, B-2, and B-4. The horizontal extent of TPH concentrations above 100 mg/kg are delineated to the west by boring B-3, to the north by boring DB-6, to the east by boring B-8, and to the south by boring B-9.
- The horizontal extent of chloride concentrations above 600 mg/kg has been delineated to the west by borings B-3 and DB-3, to the north by borings DB-5, B-5, and DB-20D, to the northeast by boring DB-19D, to the east by boring DB-18, and to the south by borings B-2 and DB-17B.
- The vertical extent of chloride concentrations is delineated by the sample collected from the 10 to 12 ft depth interval from boring DB-11, which exhibited a chloride concentration of 454 mg/kg.

6. Proposed Remediation Plan

Future Site remediation activities will be conducted to address the following regulatory requirements applicable to the site:

- Soil remediation requirements in Table I, Closure Criteria for Soils Impacted by a Release provided in 19.15.29.12 NMAC; and
- Soil reclamation requirements under 19.15.29.13.D.(1) NMAC.

The previous report indicated that Chevron was planning to decommission the operations equipment and remove the associated infrastructure from the Amoco Federal 11 CTB well pad. However, it is now understood that this is no longer planned, and the Amoco pad will continue operations until at least 2025. As such, remedial activities will need to be coordinated with Chevron Operations, and some areas under currently active equipment are being proposed for deferral (i.e., under the active separator battery), as further described below.

6.1 Proposed Soil Remediation/Reclamation Approach

As required by the NMOCD to address the impacted soil, remediation is proposed for the area shown on **Figure 4**. Soil remediation/reclamation will be conducted through excavation and offsite disposal of impacted soil as further described below in *Section 6.2*.

6.2 Soil Excavation and Confirmation Sampling associated with Site Remediation/Reclamation

The impacted soil will be excavated until concentrations from confirmation samples are reported below 600 mg/kg for chloride and 100 mg/kg for TPH and based on the assumption of groundwater presence

less than 50 feet bgs.[1] The approximate footprint of the excavation area, based on delineation samples collected and analyzed to date, is 54,243 square feet (ft^2) as shown on **Figure 4**. The area within/below the active separator tank battery and associated piping, is being requested for approval for deferral in accordance with 19.15.29.(C)(2) NMAC. The area for proposed deferral is shown on **Figure 4**.

It is currently estimated that approximately 10,450 cubic yards (yd^3) of impacted soil will be removed (based on a soil fluff factor of 1.3). The actual extent of the soil excavation will be determined based on the laboratory analytical results for confirmation soil samples collected from the walls and bottom of the excavation as described below. Additional excavation refinement samples may also be collected to assist with directing the excavation activities. The excavated soil will be transported offsite for disposal at a Chevron-approved waste disposal facility that accepts oil and gas exploration and production (E&P) exempt wastes.

6.3 Soil Confirmation Sampling Plan

In conjunction with excavation of impacted soil, composite confirmation samples will be collected from the walls and bottom of the excavation according to NMOCD requirements (see **Figure 4**). The area that exhibited TPH exceedance of regulatory limits is relatively small and is entirely contained within the area of chloride regulatory exceedances. Therefore, if acceptable, confirmation that remediation objectives have been achieved at the excavation floor (i.e., bottom) and perimeter walls will be demonstrated primarily based on chloride results for the confirmation samples described below.

- Excavation floor confirmation samples (five-point composite samples) will be collected at about 50 to 55 locations (approximately one for each 1,000 ft^2) as shown on **Figure 4**. The results of excavation floor samples will also be supplemented by the results for numerous soil borings that have been sampled within the proposed excavation footprint, at appropriate depths to be representative of chloride concentrations at the floor of the excavation. Additional excavation floor samples may be collected if the area of the proposed excavation increases substantially based on the results for confirmation samples collected from the excavation walls, and/or if wet or discolored (stained) soil areas are observed.
- BTEX and TPH confirmation samples will also be collected within the portion of the excavation footprint where TPH exceedances were reported and/or if elevated PID results or hydrocarbon staining and odors are observed.
- Excavation wall confirmation soil samples (five-point composite samples) will be collected at a spacing of no greater than 100 ft along the perimeter of the excavation.

The confirmation soil samples will be submitted for laboratory analysis of chloride by EPA Method 300.0 and TPH by Method 8015B (within areas with TPH impacts only). The soil samples will be collected in clean, laboratory-provided sample containers, labeled, and placed on ice in laboratory-provided coolers. AECOM will complete chain-of-custody forms and arrange for shipment/transportation of the samples to Eurofins in Midland, Texas for laboratory analysis.

Excavation activities will continue as necessary until confirmation sample results are within the required regulatory limits. Clean backfill will then be used to backfill the excavated areas and photos will be taken prior to backfilling.

6.4 Site Closure Report

Upon completion of soil remediation/reclamation activities, a Site Closure Report will be submitted to the NMOCD describing the soil excavation and disposal activities, and the closure confirmation sampling results.

[1] Note that additional drilling to 51 ft bgs is planned for the near future. If groundwater is not encountered to 51 ft bgs, then a proposed revision to this remediation plan will be requested and the depth of the excavation modified to a maximum of 4 feet bgs, based on regulatory limits when groundwater is greater than 51 ft bgs.

6.5 Schedule

Depending on receipt of approval from the NMOCD, the soil remediation/reclamation activities will be scheduled within three months of approval. The NMOCD will be notified prior to initiation of excavation activities and upon completion.

7. References

New Mexico Water Rights Reporting System (NMWRRS), Water Column/Average Depth To Water Report. http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html .

National Wetlands Inventory, surface waters and wetlands. https://www.fws.gov/wetlands/data/mapper.html

Google Earth Pro.

United States Department of Agriculture – Natural Resources Conservation Service. Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

Figures

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AMOCO FED 11 CTB

SITE LOCATION MAP

EDDY COUNTY, NEW MEXICO
PROJECT NO.: 60689116 DATE: 09/20/2022

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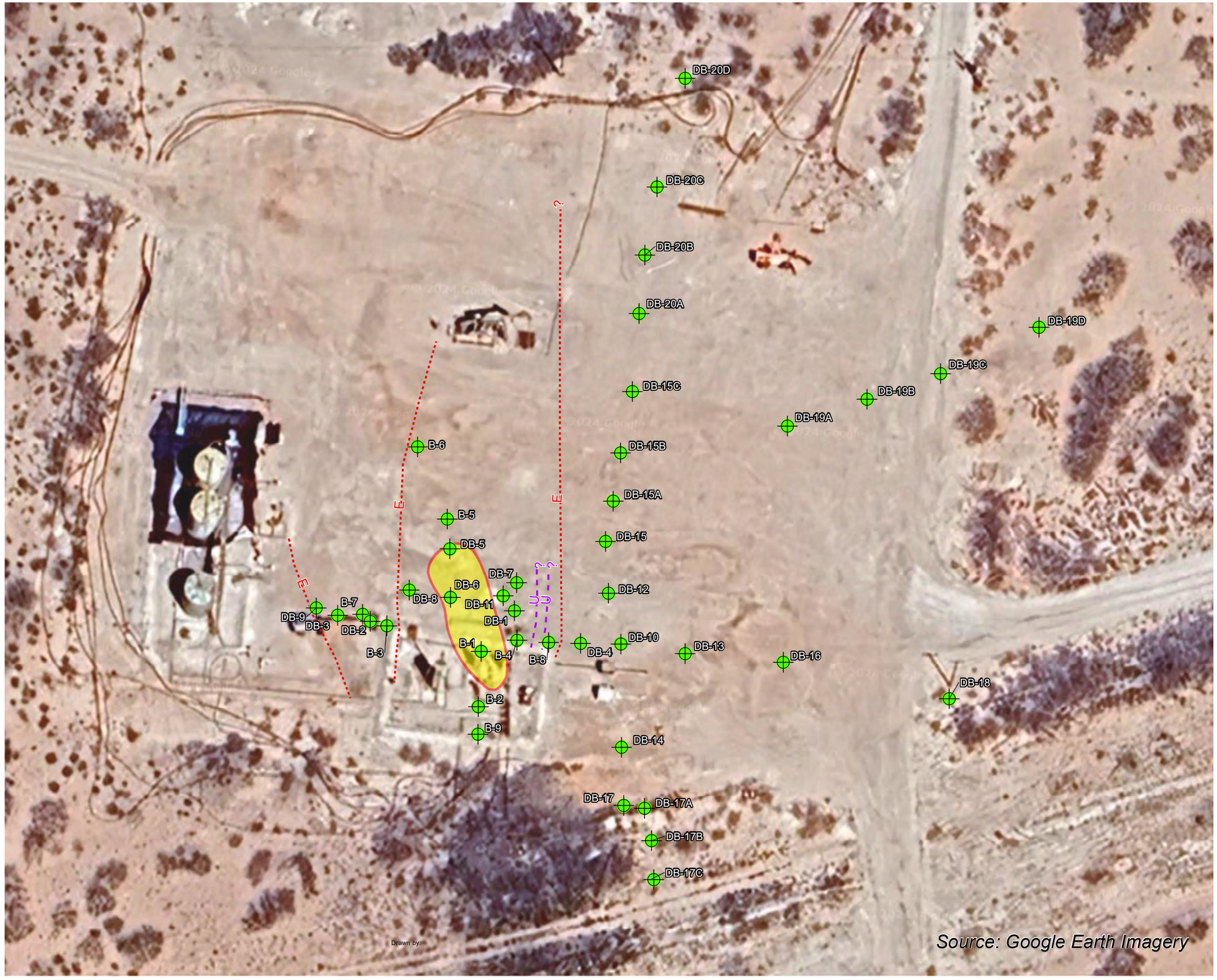
Figure: 1



Legend

- Approximate Extent of June 2022 Release Area
- Electric Line
- Unknown underground utility/anomaly identified by GPRS
- Soil Boring

Note:
All utility locations are approximate

0 45 90

Scale in Feet

AECOM

Amoco Federal 11 CTB
Eddy County, New Mexico

Project Number : 60689116

Sample Locations Map

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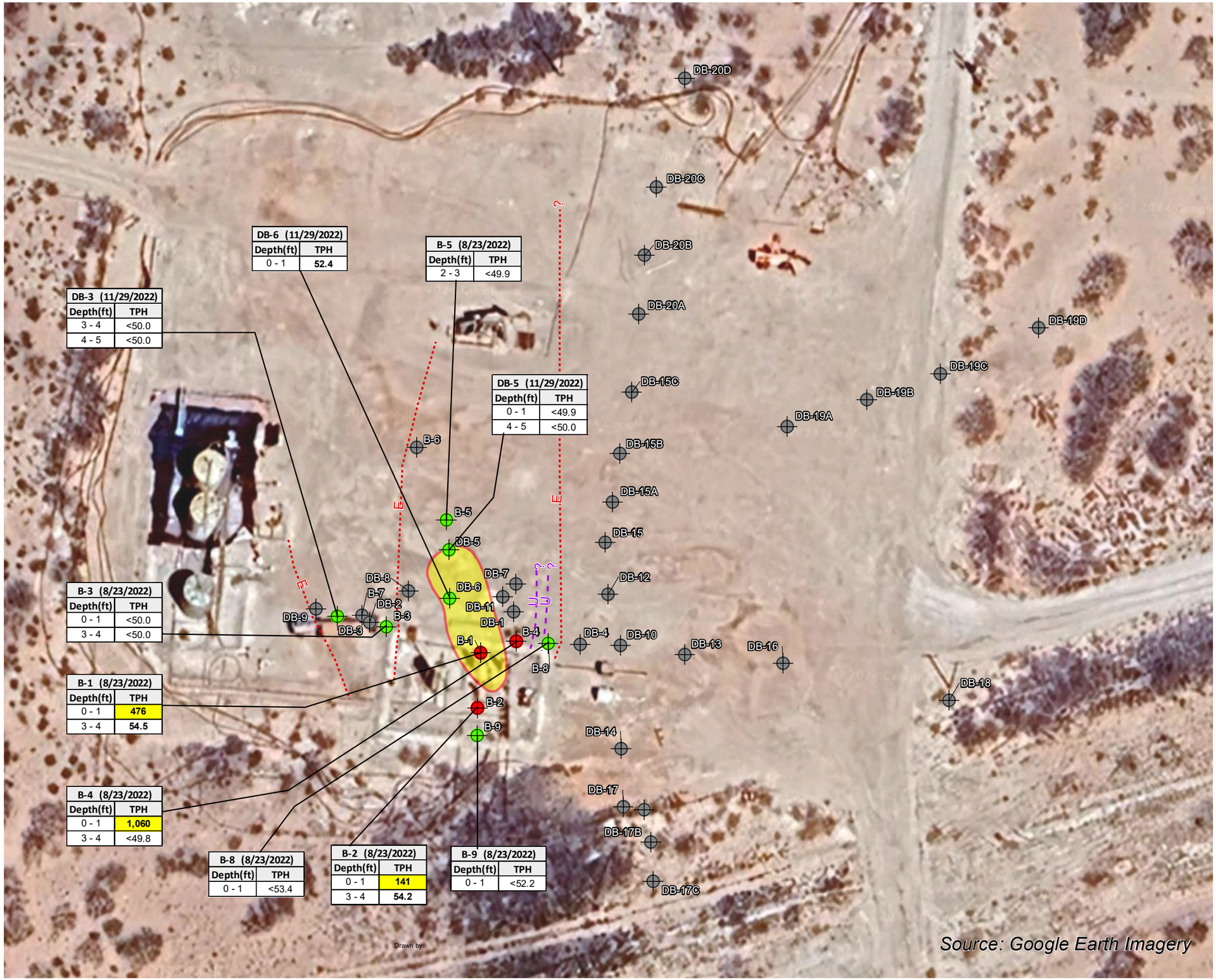

N

Legend

- Approximate Extent of June 2022 Release Area
- Electric Line
- Unknown underground utility/anomaly identified by GPRS
- Soil Boring with no exceedances
- Soil Boring with exceedance
- Soil Boring not sampled/analyzed

Notes

1. Units for all analytical data provided are mg/Kg (milligrams per kilogram).
2. Depth (ft) - feet below ground surface.
3. Results below the laboratory Sample Detection Limit (SDL) are preceded by "<".
4. **Bold** values represent detectable concentrations above the SDLs.
5. **Bold and Shaded** - Reported concentration exceeds NMAC Regulatory Limits.

Regulatory Limits:
TPH = 100 mg/kg

0 45 90
Scale in Feet

AECOM

Amoco Federal 11 CTB
Eddy County, New Mexico

Project Number : 60689116

TPH Soil Sample Analytical Results Map

GIS File: Figure 3A.mxd

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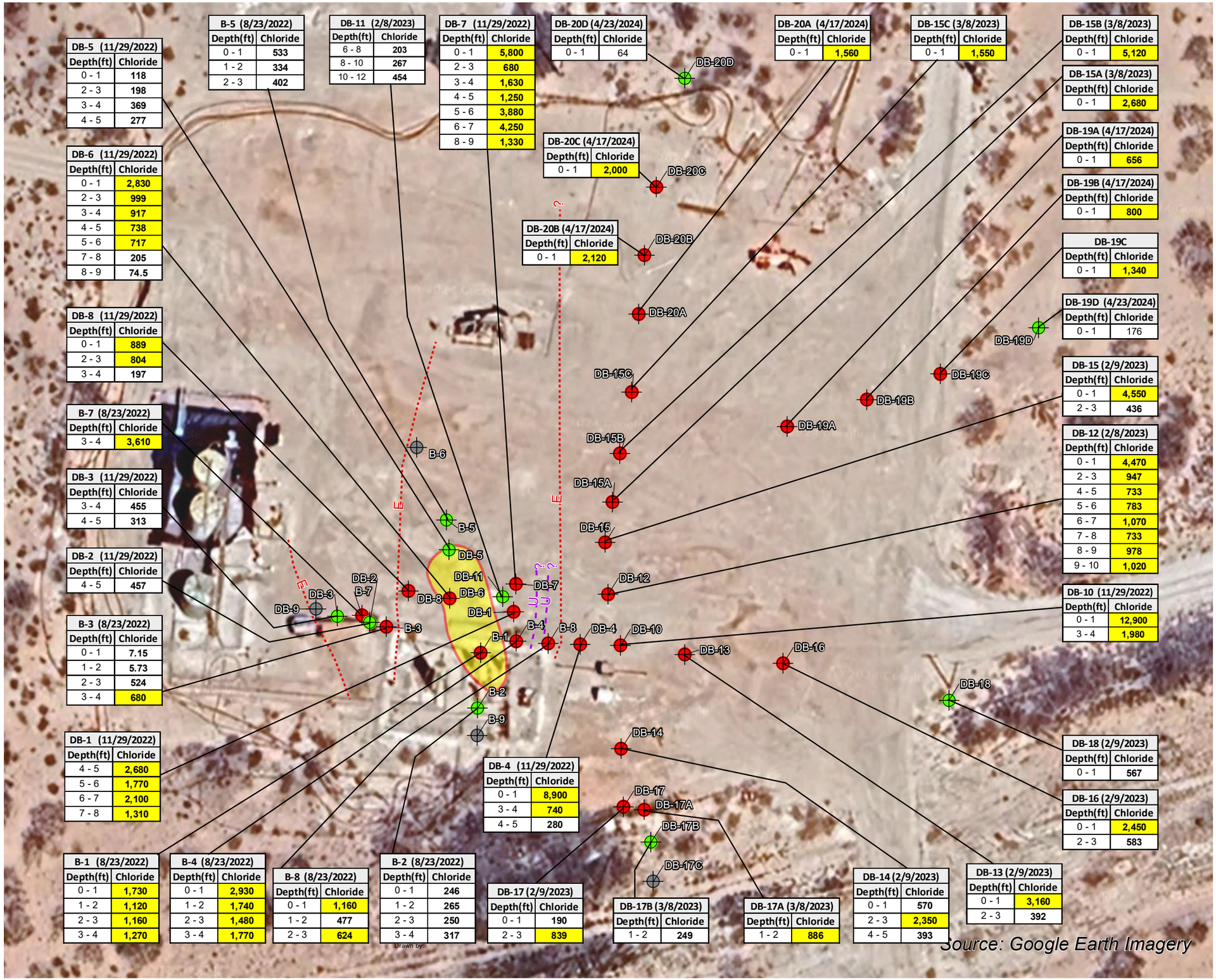

Legend

- Approximate Extent of June 2022 Release Area
- Electric Line
- Unknown underground utility/anomaly identified by GPRS
- Soil Boring with no exceedances
- Soil Boring with exceedance
- Soil Boring not sampled/analyzed

Notes

1. Units for all analytical data provided are mg/Kg (milligrams per kilogram).
2. Depth (ft) - feet below ground surface.
3. Results below the laboratory Sample Detection Limit (SDL) are preceded by "<".
4. **Bold** values represent detectable concentrations above the SDLs.
5. **Bold and Shaded** - Reported concentration exceeds NMAC Regulatory Limits.

Regulatory Limits:
Chloride = 600 mg/kg

0 45 90

Scale in Feet

AECOM

Amoco Federal 11 CTB
Eddy County, New Mexico

Project Number : 60689116

Chloride Soil Sample Analytical Results Map

GIS File: Figure 3B.mxd

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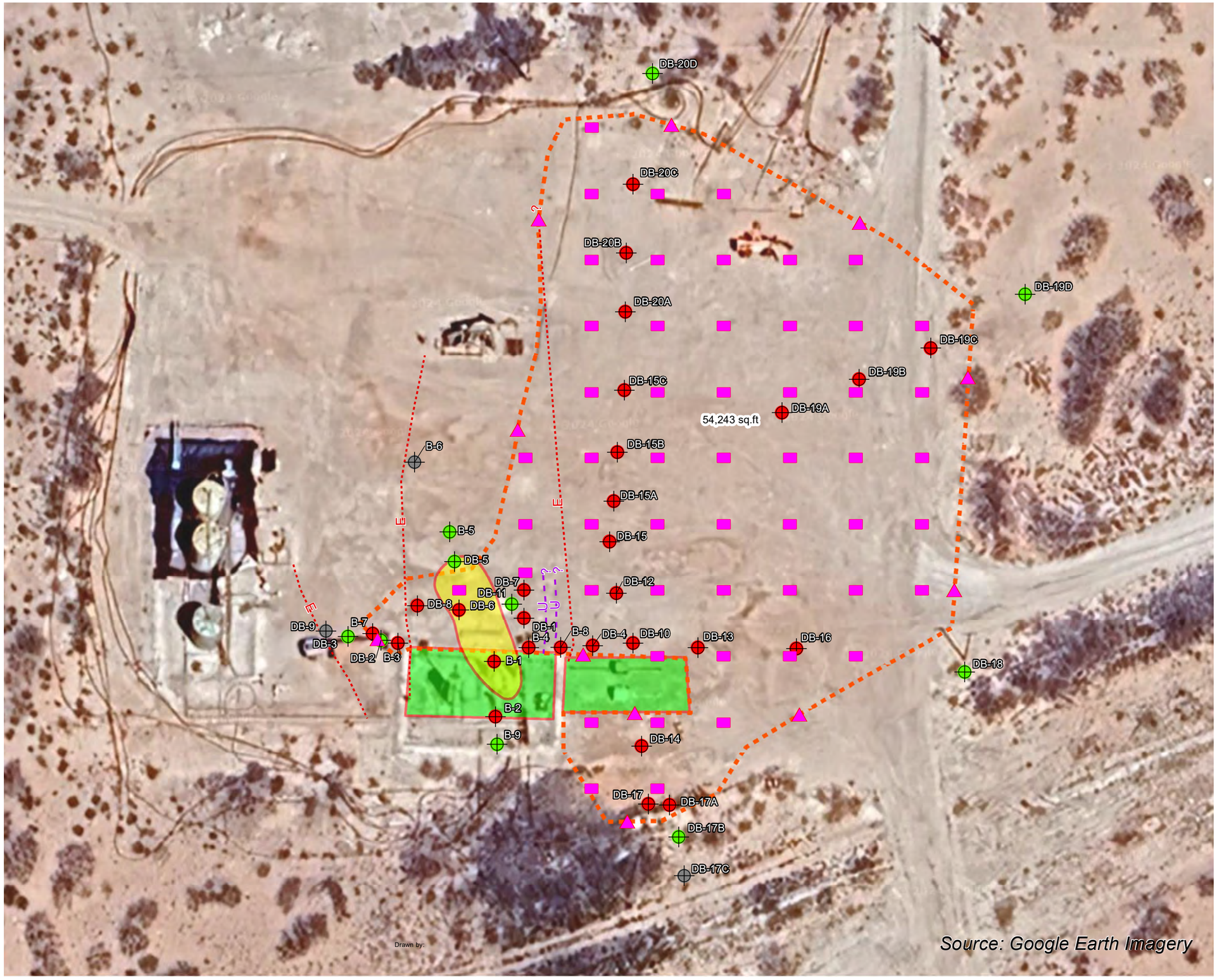

Legend

- Approximate Extent of June 2022 Release Area
- Area Proposed for Deferral
- Proposed/Anticipated Excavation Extents
- Electric Line
- Unknown underground utility/anomaly identified by GPRS
- Soil Boring with no exceedances
- Soil Boring with TPH and/or Chloride exceedance
- Soil Boring not sampled/analyzed
- Proposed 5-point Composite Confirmatory Base Samples
- Proposed 5-point Composite Confirmatory Wall Samples (~every 100 ft)

N

0 45 90

Scale in Feet

AECOM

Amoco Federal 11 CTB
Eddy County, New Mexico

Project Number : 60689116

Proposed Remediation Excavation Plan Map

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Tables

Table 1
Soil Analytical Results (BTEX, TPH, Chloride)
Chevron MCBU - Amoco Federal 11 CTB Spill Site
Eddy County, New Mexico

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Sample ID	Sample Date	Sample Depth (ft bgs)	Total Petroleum Hydrocarbons (EPA Method 8015 NM)				Volatile Organic Compounds (EPA Method 8021B NM)					Chloride (EPA Method 300.0 Anions by Ion Chromatography)
			GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	Total TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	
NMAC Regulatory Limits (Groundwater >50 ft bgs)		0 - 4 ft bgs	--	--	--	100	10	--	--	--	50	600
		> 4 ft bgs	--	--	--	100	10	--	--	--	50	600
B-1	8/23/2022	0 - 1	<49.8	**391**	**85.2**	**476**	<0.00199 F1	<0.00199 F1	<0.00199 F1	<0.00398 F1	<0.00398	**1,730**
		1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,120**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,160**
		3 - 4	<50.0	**54.5**	<50.0	**54.5**	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	**1,270**
B-2	8/23/2022	0 - 1	<50.0	**82.8**	**57.7**	**141**	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	**246**
		1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**265**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**250**
		3 - 4	<49.9	**54.2**	<49.9	**54.2**	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	**317**
B-3	8/23/2022	0 - 1	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	**7.15**
		1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5.73**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**524**
		3 - 4	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	**680**
B-4	8/23/2022	0 - 1	<50.0	**837**	**222**	**1,060**	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	**2,930**
		B-DUP-01	<50.0	**804**	**218**	**1,020**	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	**2,260**
		1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,740**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,480**
		3 - 4	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	**1,770**
B-5	8/23/2022	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**533**
		1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**334**
		2 - 3	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	**402**
B-7	8/23/2022	3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3,610**
B-8	8/23/2022	0 - 1	<53.4	<53.4	<53.4	<53.4	NA	NA	NA	NA	NA	**1,160**
		1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**477**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**624**
B-9	8/23/2022	0 - 1	<52.2	<52.2	<52.2	<52.2	NA	NA	NA	NA	NA	NA
AMOCO DB-1	11/29/2022	4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,680**
		5 - 6	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,770**
		6 - 7	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,100**
		7 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,310**
AMOCO DB-2	11/29/2022	4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**457**
AMOCO DB-3	11/29/2022	3 - 4	<50.0	<50.0	<50.0	<50.0	NA	NA	NA	NA	NA	**455**
		4 - 5	<50.0	<50.0	<50.0	<50.0	NA	NA	NA	NA	NA	**313**
AMOCO DB-4	11/29/2022	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8,310**
		DUP 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8,900**
		3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**740**
		4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**280**
AMOCO DB-5	11/29/2022	0 - 1	<49.9	<49.9	<49.9	<49.9	NA	NA	NA	NA	NA	**118**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**198**
		3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**369**
		4 - 5	<50.0	<50.0	<50.0	<50.0	NA	NA	NA	NA	NA	**277**
AMOCO DB-6	11/29/2022	0 - 1	<49.9	**52.4**	<49.9	**52.4**	NA	NA	NA	NA	NA	**2,830**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**999**
		3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**917**
		4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**738**
		5 - 6	NA	NA	NA	NA	NA	NA	NA	NA	NA	**717**
		7 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	**205**
		8 - 9	NA	NA	NA	NA	NA	NA	NA	NA	NA	**74.5**
AMOCO DB-7	11/29/2022	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5,800**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**680**
		3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,630**
		4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,250**
		5 - 6	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3,880**
		6 - 7	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4,250**
		8 - 9	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,330**
AMOCO DB-8	11/29/2022	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**889**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**804**
		3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**197**
AMOCO DB-10	11/29/2022	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**12,900**
		3 - 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,980**
DB-11	2/8/2023	6 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	**203**
		8 - 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	**267**
		10 - 12	NA	NA	NA	NA	NA	NA	NA	NA	NA	**454**
DB-12	2/8/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4,470** F1
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**947**
		4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**733**
		5 - 6	NA	NA	NA	NA	NA	NA	NA	NA	NA	**783**
		6 - 7	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,070**
		7 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	**733**
		8 - 9	NA	NA	NA	NA	NA	NA	NA	NA	NA	**978**
		9 - 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,020**
DB-13	2/9/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3,160**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**392**
DB-14	2/9/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**570**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,330**
		DUP-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,350**
		4 - 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**393**
DB-15	2/9/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4,550**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**436**
DB-15A	3/8/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,680**
DB-15B	3/8/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5,120**
DB-15C	3/8/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,550**
DB-16	2/9/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,450**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**583** F1
DB-17	2/9/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**190**
		2 - 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	**839**
DB-17A	3/8/2023	1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**886**
DB-17B	3/8/2023	1 - 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	**249**
DB-18	2/9/2023	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**567** F1
DB-19A	4/17/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**656**
DB-19B	4/17/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**800**
DB-19C	4/17/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,340**
DB-19D	4/23/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**176**
DB-20A	4/17/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,560**
DB-20B	4/17/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,120**
DB-20C	4/17/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,000**
DB-20D	4/23/2024	0 - 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	**64.0**

Notes:

1. Soil analyses performed by Eurofins Environment Testing in Midland, Texas (2022 & 2023 samples), and by Cardinal Laboratories in Hobbs, New Mexico (2024 samples).
2. All analytical data are reported in units of milligrams per kilogram (mg/kg).
3. Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC) - "Closure Criteria for Soils Impacted by a Release."
4. "--" Indicates that no applicable regulatory limit exists for that analyte.
5. "ft bgs" - feet below ground surface.
6. "GRO" - Gasoline Range Organic Compounds
7. "DRO" - Diesel Range Organic Compounds
8. "MRO" - Motor Oil/Lube Range Organic Compounds
9. "NA" - Not analyzed.
10. Results reported below laboratory Sample Detection Limits (SDLs) are preceded by "<".
11. Results followed by "F1" indicate matrix spike and/or matrix spike duplicate recoveries exceeded laboratory control limits.
12. **Bold** values represent detectable concentrations above the SDLs.
13. **Bold and Shaded** - Reported concentration exceeds NMAC Regulatory Limits.

Appendix A

Form C-141 – Amoco Federal 11 CTB

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2216547154
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron USA	OGRID: 4323
Contact Name: Amy Barnhill	Contact Telephone: 432-687-7108
Contact email: ABarnhill@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 6301 Deauville Blvd Midland, Tx 79706	

Location of Release Source

Latitude 32.31808478 Longitude -104.05284149
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Amoco Federal 11 CTB	Site Type: Oil
Date Release Discovered: 6-3-22	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	11	23S	28E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 1.579	Volume Recovered (bbls) 1 bbl
☒ Produced Water	Volume Released (bbls) 4.731	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: The two-phase liquid dump was plugged and prevented flow, causing the vessel to overflow.		

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2216547154
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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.

Printed Name: Amy Barnhill Title: Water Specialist

Signature: Amy Barnhill Date: 6-14-22

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: Date:

Incident ID	nAPP2216547154
District RP	
Facility ID	
Application ID	

Spill Calculations:

Area 1
Shape: Rectangle
Secondary Containment?: No
Standing Liquid Dimensions: 15 ft x 10 ft x 1 in
Total Volume: 2.310 bbl
Water Cut: 75%
Oil Volume:.578 bbl
Penetration Depth: .25 in
Fluid to Soil Volume: .083 bbl
Water Volume: 1.732 bbl

Area 2
Shape: Rectangle
Secondary Containment?: No
Standing Liquid Dimensions: 10 ft x 25 ft x .5 in
Total Volume: 1.994 bbl
Water Cut: 75%
Oil Volume: .499 bbl
Penetration Depth: .25 in
Volume to Soil Volume: .139 bbl
Water Volume: 1.495 bbl

Area 3
Shape: Rectangle
Secondary Containment?: No
Standing Liquid Dimensions: 10 ft x 12 ft x .25 in
Total Volume: .512 bbl
Water Cut: 75%
Oil Volume: .128 bbl
Penetration Depth: .25 in
Fluid to Soil Volume: .067 bbl
Water Volume: 0.384 bbl

Area 4
Shape: Rectangle
Secondary Containment?: No
Standing Liquid Dimensions: 35 ft x 20 ft x .125 in
Total Volume: 1.494 bbl
Water Cut: 75%
Oil Volume: .374 bbl
Penetration Depth: .125 in
Fluid to Soil Volume: .195 bbl
Water Volume: 1.12 bbl

Appendix B

NMWRRS Water Column / Average Depth to Water Report

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 04216 POD4	CUB	ED	2	4	1	11	23S	28E	588499	3576513	782	20	10	10
C 04216 POD1	CUB	ED	2	4	1	11	23S	28E	588488	3576534	803	20	10	10
C 00109	CUB	ED	1	3	3	04	23S	27E	588486	3576531	803	168	120	48
C 04216 POD3	CUB	ED	1	4	1	11	23S	28E	588501	3576556	804	23	13	10
C 04216 POD2	CUB	ED	1	4	1	11	23S	28E	588465	3576555	834	20	10	10
C 03469 POD3	CUB	ED	3	4	3	11	23S	28E	588381	3575538	949	47		
C 03469 POD1	CUB	ED	3	4	3	11	23S	28E	588374	3575538	955	68	38	30
C 03469 POD2	CUB	ED	3	4	3	11	23S	28E	588382	3575506	967	48		

Average Depth to Water: **33 feet**
Minimum Depth: **10 feet**
Maximum Depth: **120 feet**

Record Count: 8

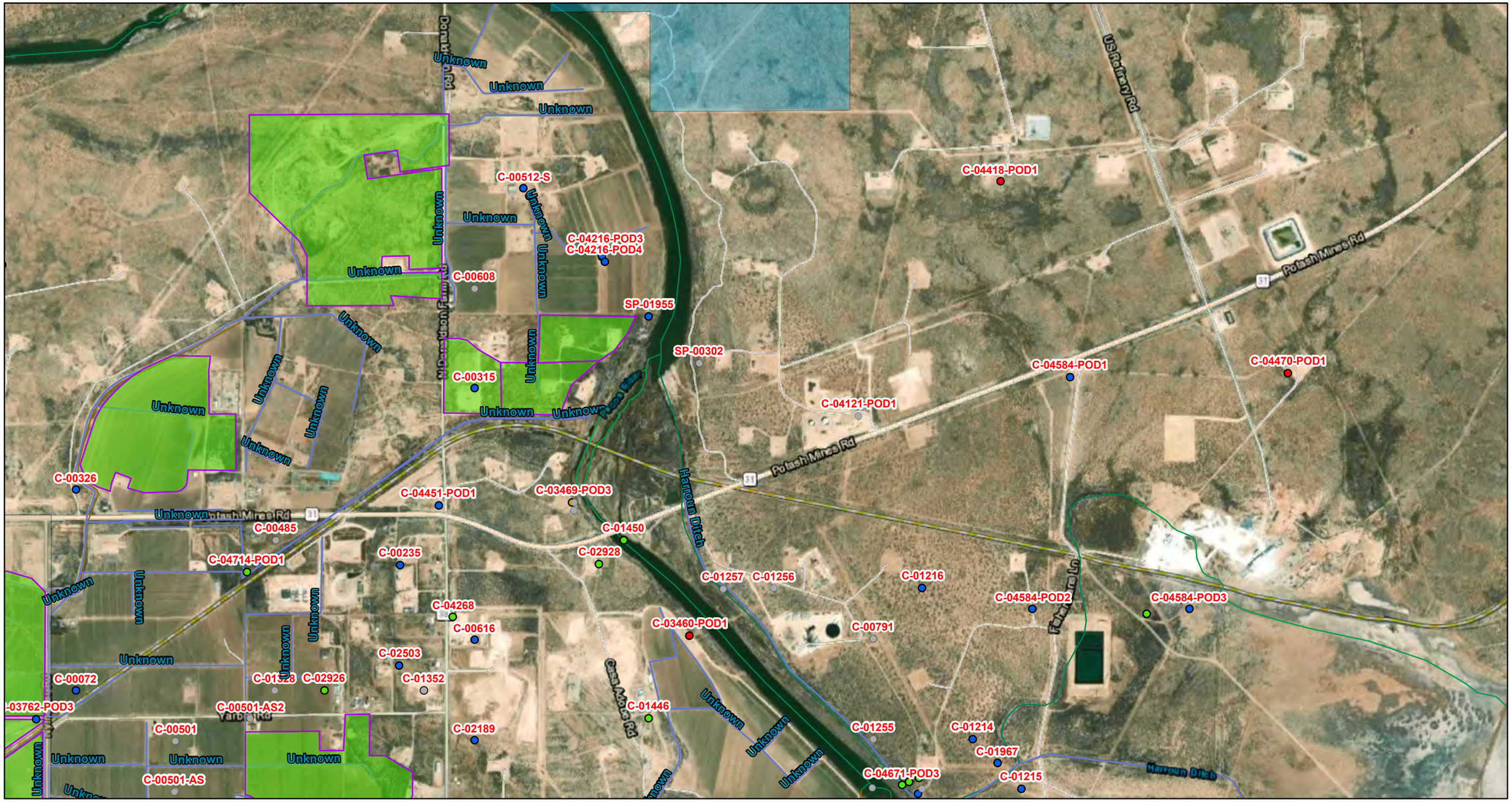
Basin/County Search:

Basin: Carlsbad **County:** Eddy **Subbasin:** Carlsbad Underground Basin

UTMNAD83 Radius Search (in meters):

Easting (X): 589155.75 **Northing (Y):** 3576087.89 **Radius:** 1000

OSE POD Locations Map_Amoco



4/7/2023, 1:41:23 PM

GIS WATERS PODs
- Active
- Pending
- Capped
- Plugged
- OSE District Boundary

Water Right Regulations
- Negative Easement Area

New Mexico State Trust Lands
- Subsurface Estate
- Both Estates

Conveyances
- Ditch

NHD Flowlines
- Artificial Path
- Canal Ditch
- Stream River
- SiteBoundaries

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar

Web Generated Map
Map is generated by web users.

Appendix C

FEMA Flood Hazard Maps

National Flood Hazard Layer FIRMette

FEMA

104°3'29"W 32°19'21"N

104°2'52"W 32°18'51"N

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

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/11/2023 at 6:06 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Appendix D

Field Sampling Summary and Soil Boring Logs

Appendix D
Field Sampling Summary
Chevron MCBU - Amoco Federal 11 CTB Spill Site
Eddy County, New Mexico

Date	Boring ID	Depth (ft bgs)	Time	Lithology	PID (ppm)
8/23/2022	**B-1**	0 - 1	10:08	0 - 1': tannish-orange, fine to very fine sand; contains minor caliche gravel; dry.	22.5
		1 - 2	10:09	1 - 3.8': light brown, very fine sand; dry.	9.1
		2 - 3	10:10	hit refusal at approximately 3.8 ft bgs.	7.3
		3 - 4	10:11		7.9
8/23/2022	**B-2**	0 - 1	10:35	0 - 1': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	9.9
		1 - 2	10:36	1 - 3.5': same as above, but gravel content no longer observed.	3.3
		2 - 3	10:37	hit refusal at approximately 3.5 ft bgs.	4.8
		3 - 4	10:38		6.2
8/23/2022	**B-3**	0 - 1	11:10	0 - 2': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	7.2
		1 - 2	11:11	2 - 3.8': same as above, but with reduced gravel content.	2.5
		2 - 3	11:12	hit refusal at approximately 3.8 ft bgs.	3.0
		3 - 4	11:13		2.2
8/23/2022	**B-4**	0 - 1	11:40	0 - 2': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	9.0
		1 - 2	11:41	(collected duplicate sample from 0 - 1' depth interval)	5.1
		2 - 3	11:42	2 - 3.5': same as above, but with reduced gravel content.	5.5
		3 - 4	11:43	hit refusal at approximately 3.5 ft bgs.	4.4
8/23/2022	**B-5**	0 - 1	12:07	0 - 2': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	3.3
		1 - 2	12:08	2 - 3': same as above, but with reduced gravel content.	3.9
		2 - 3	12:09	hit refusal at approximately 3 ft bgs.	4.5
8/23/2022	**B-6**	0 - 1	12:28	0 - 1': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	6.5
		1 - 2	12:29	1 - 3': same as above, but with reduced gravel content.	4.7
		2 - 3	12:30	hit refusal at approximately 3 ft bgs.	7.9
8/23/2022	**B-7**	0 - 1	12:50	0 - 3.8': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	7.1
		1 - 2	12:51		6.1
		2 - 3	12:52	hit refusal at approximately 3.8 ft bgs.	5.8
		3 - 4	12:53		1.7
8/23/2022	**B-8**	0 - 1	13:35	0 - 1': tannish-red, very fine sand; abundant caliche gravel and coarse sand.	0.8
		1 - 2	13:36	1 - 3': light brown, very fine sand; dry.	2.8
		2 - 3	13:37	hit refusal at approximately 3 ft bgs.	4.0
8/23/2022	**B-9**	0 - 1	14:00	0 - 2': light brown, very fine sand; minor caliche gravel and coarse sand; dry.	3.0
		1 - 2	14:01	2 - 3.9': same as above, but with reduced gravel content.	4.7
		2 - 3	14:02	hit refusal at approximately 3.9 ft bgs.	2.9
		3 - 4	14:04		1.1
11/29/2022	**DB-4**	0 - 1	16:15	0 - 3': reddish-brown, silty sand; dry.	0.0
		1 - 2	NS	(collected duplicate sample from 0 - 1' depth interval)	NM
		2 - 3	NS	3 - 5': tan-colored, fine silty sand with caliche nodules; dry.	NM
		3 - 4	16:20	5 - 7': tan-colored caliche, dry.	0.0
		4 - 5	16:23	hit refusal at approximately 7 ft bgs.	0.0
		5 - 6	16:25		0.0
		6 - 7	16:27		0.0
11/29/2022	**DB-5**	0 - 1	12:45	0 - 4': dark brown, silty sand; moist.	0.0
		1 - 2	NS	4 -5': tan-colored caliche; dry.	NM
		2 - 3	12:50	end of borehole at 5 ft bgs.	0.0
		3 - 4	12:55		0.0
		4 - 5	13:00		0.0
11/29/2022	**DB-10**	0 - 1	12:25	0 - 3': medium-brown, silty sand with caliche nodules.	0.0
		1 - 2	NS	3 - 4': light-brown, fine silty sand with caliche nodules.	NM
		2 - 3	NS	hit refusal at approximately 4 ft bgs.	NM
		3 - 4	12:35		0.0
2/9/2023	**DB-15**	0 - 1	9:15	0 - 1': light brown, moderately to well-graded, very fine silty sand mixed with	0.6
		1 - 2	NS	angular to subrounded caliche gravel; dry.	0.6
		2 - 3	9:16	1 - 5': light grey, hard/indurated caliche; dry.	1.1
		3 - 4	NS	end of borehole at 5 ft bgs.	0.8
		4 - 5	9:17		0.3
3/8/2023	**DB-15A**	0 - 1	11:40	0 - 1': dark brownish-grey, very fine silty sand with up to 20% caliche gravel.	1.2
3/8/2023	**DB-15B**	0 - 1	11:50	0 - 1': dark brownish-grey, very fine silty sand with up to 20% caliche gravel.	4.6
3/8/2023	**DB-15C**	0 - 1	12:00	0 - 1': dark brownish-grey, very fine silty sand with up to 20% caliche gravel.	4.8
2/9/2023	**DB-16**	0 - 1	10:42	0 - 1': medium-brown, moderately to well-graded, very fine silty sand with	0.9
		1 - 2	NS	up to 10% subrounded caliche gravel; dry.	0.8
		2 - 3	10:43	1 - 2': medium-brown, poorly-graded, very fine silty sand; dry.	0.6
		3 - 4	NS	2 - 5': light-grey, hard/indurated caliche with interstitial very fine sand and silt.	0.8
		4 - 5	10:44	end of borehole at 5 ft bgs.	0.2

Appendix D
Field Sampling Summary
Chevron MCBU - Amoco Federal 11 CTB Spill Site
Eddy County, New Mexico

Date	Boring ID	Depth (ft bgs)	Time	Lithology	PID (ppm)
2/9/2023	**DB-17**	0 - 1 1 - 2 2 - 3 3 - 4 4 - 5	11:58 NS 11:59 NS 12:00	0 - 2': medium-brown, poorly-graded, very fine silty sand; dry. 2 - 3': medium-brown, well-graded, very fine silty sand with abundant subrounded caliche gravel (coarse sand to small pebbles); dry. 3 - 5': light-grey to tan, hard/indurated calciche with interstitial sand and silt. end of borehole at 5 ft bgs.	1.3 1.7 1.6 1.8 0.7
3/8/2023	**DB-17A**	0 - 1 1 - 2	NS 9:55	0 - 2': brownish-orange, very fine silty sand with up to 10% subrounded caliche gravel; dry.	8.6 2.7
3/8/2023	**DB-17B**	0 - 1 1 - 2	NS 10:25	0 - 2': medium-brown, very fine silty sand with up to 10% subrounded caliche gravel; dry.	2.0 4.9
3/8/2023	**DB-17C**	0 - 1 1 - 2	NS 11:05	0 - 2': light to medium-brown, well-graded, gravelly silt and sand with up to 20% caliche gravel (up to 10 cm diameter); dry.	7.6 4.8
2/9/2023	**DB-18**	0 - 1 1 - 2 2 - 3 3 - 4 4 - 5	12:24 NS 12:25 NS 12:26	0 - 1': medium-brown, poorly-graded, very fine silty sand with approx. 1 - 2% caliche nodules and small rounded pebbles; dry. 1 - 3': medium-brown, poorly-graded, very fine silty sand; dry. 3 - 5': light-grey, hard/indurated calciche with interstitial very fine sand and silt. end of borehole at 5 ft bgs.	1.5 0.8 1.7 0.6 0.6
2/9/2023	**DB-19**	0 - 1 1 - 2 2 - 3 3 - 4 4 - 5	12:45 NS 12:46 NS 12:47	0 - 1': medium-brown, well-graded, fine to medium sand with abundant caliche gravel (coarse sand to small pebbles); dry. 1 - 2': medium-brown, poorly graded, fine to very fine silty sand; dry. 2 - 4': medium-brown, well-graded, fine sandy to silty, rounded gravel; dry. 4 - 5': medium-brown, poorly-graded, very fine silty sand; dry.	1.2 1.1 0.4 1.0 1.8
4/17/2024	**DB-19A**	0 - 1 1 - 1.5	15:45 15:46	0 - 1.5': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated. Hit refusal at approx. 1.5 ft bgs.	1.8 3.3
4/17/2024	**DB-19B**	0 - 1 1 - 1.5	16:37 16:38	0 - 1.5': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated. Hit refusal at approx. 1.5 ft bgs.	5.8 5.9
4/17/2024	**DB-19C**	0 - 1 1 - 2	17:16 17:17	0 - 2': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated.	2.3 1.9
4/23/2024	**DB-19D**	0 - 1	13:27	0 - 1': light to medium-brown, fine to very fine, poorly-graded sand; dry; loose/unconsolidated.	NM
4/17/2024	**DB-20A**	0 - 1 1 - 1.5	11:35 11:36	0 - 1.5': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated. Hit refusal at approx. 1.5 ft bgs.	3.5 2.9
4/17/2024	**DB-20B**	0 - 1 1 - 1.5	12:30 12:31	0 - 1.5': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated. Hit refusal at approx. 1.5 ft bgs.	3.4 3.8
4/17/2024	**DB-20C**	0 - 1	13:05	0 - 1.2': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated. Hit refusal at approx. 1.2 ft bgs.	2.8
4/23/2024	**DB-20D**	0 - 1	14:34	0 - 1': light brownish-grey, fine to very fine, well-graded sand with abundant subrounded caliche gravel; dry; loose/unconsolidated.	NM
4/23/2024	**DB-20E**	0 - 1	14:54	0 - 1': light brownish-grey, fine to very fine, well-graded sand with abundant subrounded caliche gravel; dry; loose/unconsolidated.	NM
4/17/2024	**DB-21A**	0 - 1 1 - 2	13:52 13:53	0 - 2': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated.	4.6 1.4
4/17/2024	**DB-21B**	0 - 1 1 - 2	14:45 14:46	0 - 2': medium-brown, fine to very fine silty sand with abundant subrounded caliche gravel; dry; loose/unconsolidated.	2.0 1.6
4/23/2024	**BKGD-1**	0 - 1	13:46	0 - 1': light to medium-brown, fine to very fine, poorly-graded sand; dry; loose/unconsolidated; minor roots from adjacent vegetation.	NM
4/23/2024	**BKGD-2**	0 - 1	15:14	0 - 1': light to medium-brown, fine to very fine, poorly-graded sand; dry; loose/unconsolidated.	NM

Notes:
"ft bgs" - feet below ground surface
"NS" - not sampled
"NM" - not measured
"PID" - Photoionization Detector
"ppm" - parts per million

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-1

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31809278 **LONGITUDE** -104.0529249

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
5	HA		60 60	0.0	(4-5')	Cl-		SM	Reddish-brown to tan-colored, **silty SAND** with caliche nodules; dry.	5.0
	DP		36 36	0.0	(5-6')	Cl-		ML	Tan-colored **caliche**, dry.	
				0.0	(6-7')	Cl-				
				0.0	(7-8')	Cl-				8.0

Bottom of borehole at 8.0 feet.

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-2

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31808533 **LONGITUDE** -104.0531234

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	HA		60 60	0.0	(4-5')	Cl-		SM	Reddish-brown to light brown, **fine, silty SAND**; dry. Caliche nodules observed from 4 to 7 ft bgs.	
5				0.0	(5-6')	Cl-				
	DP		36 36	0.0	(6-7')	Cl-				7.0
				0.0	(7-8')	Cl-		ML	Tan-colored **caliche**; dry.	8.0
									Bottom of borehole at 8.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-3

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31809306 **LONGITUDE** -104.0531692

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
5	HA		60 60	0.0	(0-1')(1-2')(2-3')(3-4')(4-5')(5-6')	Cl-		SM	Brown-colored, **fine, silty SAND**; dry. Caliche nodules observed from 5 to 6 ft bgs.	
				0.0		Cl-				
				0.0		Cl-				
				0.0		Cl-				6.0
	DP		60 60	0.0	(6-7')(7-8')(8-9')	Cl-		ML	Tan-colored **caliche**; dry.	
				0.0		Cl-				
				0.0		Cl-				
10				0.0	(9-10')	Cl-				10.0
									Bottom of borehole at 10.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-6

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31812248 **LONGITUDE** -104.0530028

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	HA		60 60	0.0	(0-1')	TPH, Cl-		SM	Reddish-brown to tan-colored, **silty SAND** with caliche nodules; dry.	
				0.0	(2-3')	TPH, Cl-				
				0.0	(3-4')	TPH, Cl-				
5				0.0	(4-5')	TPH, Cl-				
				0.0	(5-6')	Cl-				6.0
	DP		48 48	0.0	(6-7')	Cl-		ML	Tan-colored **caliche**; dry.	
				0.0	(7-8')	Cl-				
				0.0	(8-9')	Cl-				9.0
									Bottom of borehole at 9.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-7

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31813135 **LONGITUDE** -104.0529277

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	HA		60 60	0.0	(0-1')	TPH, Cl-		SM	Reddish-brown to dark brown to tan-colored, **fine, silty SAND** with caliche nodules; dry.	
				0.0	(2-3')	TPH, Cl-				
				0.0	(3-4')	TPH, Cl-				
5				0.0	(4-5')	TPH, Cl-				
				0.0	(5-6')	Cl-				6.0
	DP		36 36	0.0	(6-7')	Cl-		ML	Tan to white-colored **caliche**; dry.	
				0.0	(7-8')	Cl-				8.0
									Bottom of borehole at 8.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-8

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31812673 **LONGITUDE** -104.0530778

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0	HA		60 60	0.0	(0-1')	TPH, Cl-		SM	Reddish-brown, **silty SAND**; damp.	
				0.0	(2-3')	TPH, Cl-				3.0
				0.0	(3-4')	TPH, Cl-		ML	Tan to white-colored **caliche**; dry.	
5				0.0	(4-5')	TPH, Cl-				
	DP		48 48	0.0	(5-6')	Cl-				
				0.0	(6-7')	Cl-				7.0
				0.0	(7-8')	Cl-		SM	Dark brown, **silty SAND** with caliche nodules; dry.	
				0.0	(8-9')	Cl-				9.0

Bottom of borehole at 9.0 feet.

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-9

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 11/29/22 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 11/29/22 **DRILLING METHOD** HA/DP **GROUND WATER LEVEL**

LOGGED BY J. Lovely **CHECKED BY** B. Cland **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.31810127 **LONGITUDE** -104.0532021

Sample Type: HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push

BOREHOLE DIAMETER 2.25"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	HA		60 60	0.0	(0-1')	Cl-		SM	Reddish-brown, **silty SAND**; damp.	
				0.0	(3-4')	Cl-				4.0
5				0.0	(4-5')	Cl-		ML	Tannish-yellow to brown-colored **caliche**; dry.	
	DP		36 36	0.0	(5-6')	Cl-				
				0.0	(6-7')	Cl-				
				0.0	(7-8')	Cl-				8.0
									Bottom of borehole at 8.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-11

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 2/8/23 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 2/8/23 **DRILLING METHOD** Air Rotary **GROUND WATER LEVEL**

LOGGED BY B. Cland **CHECKED BY** B. Wynne **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.318133 **LONGITUDE** -104.052936

Sample Type:
HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push; AR - Air Rotary Cuttings

BOREHOLE DIAMETER 4.5"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0	AR		60					SM	Light-brown to tannish-grey, very fine **sand and silt** mixed with angular caliche gravel; dry.	3.0
5	AR		60	1.1	(6-8')	Cl-		ML	Light-grey to tannish, hard/indurated **caliche** with minor amounts of interstitial very fine sand; dry.	
10	AR		60	0.1	(8-10')	Cl-				10.0
	AR		60	0.2	(10-12')	Cl-		SP	Tan to light-brown, poorly-graded, fine to very fine **sand**; dry.	
15	AR		60	0.3	(12-14')	Cl-				
	AR		60	0.4	(14-16')	Cl-				
	AR		60	0.7	(16-18')	Cl-				18.0
20	AR		60	1.6	(18-20')	Cl-		SM	Light-brown, poorly-graded, fine to very fine **silty sand**; dry.	20.0
	AR		60	1.3	(20-22')	Cl-		ML	Light-grey to tannish, hard/indurated **caliche** with minor amounts of interstitial very fine sand; dry.	22.0
	AR		60	1.6	(22-24')	Cl-		SW	Light-brown, well-graded, fine to medium **sand** with abundant caliche lenses and nodules; dry.	
25	AR		60	1.7	(24-26')	Cl-				
	AR		48	1.1	(26-28')	Cl-				
				1.0	(28-29')	Cl-				29.0
									Bottom of borehole at 29.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-12

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 2/8/23 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 2/8/23 **DRILLING METHOD** Air Rotary **GROUND WATER LEVEL**

LOGGED BY B. Cland **CHECKED BY** B. Wynne **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.318134 **LONGITUDE** -104.052781

Sample Type:
HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push; AR - Air Rotary Cuttings

BOREHOLE DIAMETER 4.5"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	AR		60	1.4	(0-1')	Cl-		SM	Light-brown to tannish-grey, very fine **sand and silt** mixed with minor amounts of angular to subrounded caliche gravel; dry.	
				0.8						2.0
				0.9	(2-3')	Cl-		ML	Light-grey, hard/indurated **caliche**; dry.	
				2.2						4.0
5				1.3	(4-5')	Cl-		SM	Tannish-grey, very fine **sand and silt** mixed with minor amounts of angular to subrounded caliche gravel; dry.	5.0
	AR		60	0.2	(5-6')	Cl-		ML	Light-grey, hard/indurated **caliche**; dry.	
				1.2	(6-7')	Cl-				
				0.9	(7-8')	Cl-				
				1.1	(8-9')	Cl-				
10				1.0	(9-10')	Cl-				10.0
									Bottom of borehole at 10.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-13

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 2/9/23 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 2/9/23 **DRILLING METHOD** Air Rotary **GROUND WATER LEVEL**

LOGGED BY B. Cland **CHECKED BY** B. Wynne **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.318063 **LONGITUDE** -104.05264

Sample Type:
HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push; AR - Air Rotary Cuttings

BOREHOLE DIAMETER 4.5"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	AR		60	2.8	(0-1')	Cl-		SM	Medium-brown, poorly-graded, very fine **silty sand** with minor amounts of caliche nodules; dry.	1.0
				1.1				ML	Light-grey, hard/indurated **caliche** with interstitial very fine sand and silt; dry.	
				1.1	(2-3')	Cl-				
				0.4						4.0
5				0.5	(4-5')	Cl-		SW-SM	Medium-brown, moderately to well-graded, very fine **silty sand** mixed with subrounded caliche pebbles; dry.	5.0
	AR		60	0.4	(5-6')	Cl-		ML	Light-grey, hard/indurated **caliche**; dry.	
				1.5	(6-7')	Cl-				
				2.4	(7-8')	Cl-				8.0
				2.0	(8-9')	Cl-		SP	Tannish-grey to light-brown, poorly-graded, very fine **sand** with minor caliche lenses and nodules; dry.	
10				1.5	(9-10')	Cl-				10.0
									Bottom of borehole at 10.0 feet.	

AECOM

BORING LOG - WELL CONSTRUCTION DIAGRAM

BORING NUMBER AMOCO DB-14

PAGE 1 OF 1

CLIENT Chevron MCBU **PROJECT NAME** MCBU NM Spill Sites

PROJECT NUMBER 60689116; 60689124 **PROJECT LOCATION** Loving, Eddy County, NM

DATE STARTED 2/9/23 **DRILLING CONTRACTOR** Talon/LPE **GROUND ELEVATION** _____

COMPLETED 2/9/23 **DRILLING METHOD** Air Rotary **GROUND WATER LEVEL**

LOGGED BY B. Cland **CHECKED BY** B. Wynne **AT TIME OF DRILLING** ---

NOTES Amoco Federal 11 Central Tank Battery (CTB) Spill Site. **LATITUDE** 32.317939 **LONGITUDE** -104.05273

Sample Type:
HA-Hand Auger; HSA-Hollow Stem Auger; SSA - Solid Stem Auger; DP- Direct Push; AR - Air Rotary Cuttings

BOREHOLE DIAMETER 4.5"

WELL DIAMETER _____

Depth (ft)	Sample Type	Drilling Log	Push/ Recovery (in.)	PID ppm	Sampled Interval	Analysis	Graphic Log	USCS	MATERIAL DESCRIPTION	Contact Depth
0										
	AR		60	1.6	(0-1')	Cl-		SM	Medium-brown, poorly-graded, very fine **silty sand** with approx. 1-2% rounded caliche pebbles and nodules; dry.	
				1.0						
				1.2	(2-3')	Cl-				3.0
				1.3				ML	Light-grey, hard/indurated **caliche** with interstitial very fine sand and silt; dry.	4.0
5				0.9	(4-5')	Cl-		ML	Light-grey, hard/indurated **caliche** with interstitial fine to medium sand; dry.	5.0
	AR		60	1.7	(5-6')	Cl-		ML	Light-grey, hard/indurated **caliche**; dry.	
				0.5	(6-7')	Cl-				
				1.2	(7-8')	Cl-				8.0
				1.7	(8-9')	Cl-		SP	Tannish-grey to light-brown, poorly-graded, fine to very fine **sand** with minor caliche lenses and nodules; dry.	
10				0.4	(9-10')	Cl-				10.0
									Bottom of borehole at 10.0 feet.	

Appendix E

Photographic Documentation

AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project Number:
Chevron MCBU	Amoco Federal 11 Central Tank Battery – Eddy County, New Mexico	60689116

Photo No.	Date:
001	08/23/22

Direction Photo Taken:

Looking east

Description:

Looking east at heater treater and separators from soil boring location B-3. Red pin flags in central portion of photo indicate identified electrical utility lines.

Photo No.	Date:
002	08/23/22

Direction Photo Taken:

Looking south

Description:

Looking south at heater treater and separators from soil boring location B-6. Red pin flag in bottom-right corner indicates an identified electrical line.

AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project Number:
Chevron MCBU	Amoco Federal 11 Central Tank Battery – Eddy County, New Mexico	60689116

Photo No.	Date:
003	11/29/22

Direction Photo Taken:

Looking west

Description:

Looking west at tank battery. Talon LPE (AECOM subcontractor) operating Geoprobe drill rig to collect additional delineation soil samples, using direct-push drilling.

Photo No.	Date:
004	02/08/23

Direction Photo Taken:

Looking southwest

Description:

Looking west Talon LPE (AECOM subcontractor) operating Geoprobe drill rig and air compressor trailer to collect additional delineation soil samples, using air rotary drilling.

AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project Number:
Chevron MCBU	Amoco Federal 11 Central Tank Battery – Eddy County, New Mexico	60689116

Photo No.	Date:
005	04/17/24

Direction Photo Taken:

Looking northeast

Description:

Looking northeast at horizontal step-out locations DB-19A (foreground) through DB-19C (background), indicated by pink flags and spray paint, in northeast corner of Amoco well pad.

Photo No.	Date:
006	04/17/24

Direction Photo Taken:

Looking north

Description:

Looking north at horizontal step-out locations DB-20A (foreground) through DB-20C (background), indicated by pink flags and spray paint, in north-central portion of Amoco well pad.

AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project Number:
Chevron MCBU	Amoco Federal 11 Central Tank Battery – Eddy County, New Mexico	60689116

Photo No.	Date:
007	04/23/24

Direction Photo Taken:

Looking southwest

Description:

Looking southwest at horizontal step-out location DB-19D (foreground), indicated by pink flag, located off well pad further northeast of DB-19A through DB-19C. Tank battery and heater treater visible in background.

Photo No.	Date:
008	04/23/24

Direction Photo Taken:

Looking south

Description:

Looking south at horizontal step-out location DB-20D (foreground), indicated by pink flag, located off well pad further north of DB-20A through DB-20C. Tank battery and heater treater visible in background.

Appendix F

Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2809-1
Laboratory Sample Delivery Group: 60689116
Client Project/Site: Amoco Fed. 11 CTB

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by:
9/5/2022 8:28:00 PM

John Builes, Project Manager
(561)558-4549
John.Builes@et.eurofinsus.com

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.

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Laboratory Job ID: 890-2809-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM Job ID: 890-2809-1
Project/Site: Amoco Fed. 11 CTB SDG: 60689116

Qualifiers

GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

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: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Job ID: 890-2809-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2809-1

Receipt
The samples were received on 8/23/2022 3:20 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 19.4°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33660 and analytical batch 880-33741 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 samples were outside control limits: (LCS 880-33045/2-A) and (LCSD 880-33045/3-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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-1 (0-1')

Lab Sample ID: 890-2809-1
Matrix: Solid
Date Collected: 08/23/22 10:08
Date Received: 08/23/22 15:20
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199		mg/Kg		09/02/22 15:33	09/05/22 17:25	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		09/02/22 15:33	09/05/22 17:25	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		09/02/22 15:33	09/05/22 17:25	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		09/02/22 15:33	09/05/22 17:25	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		09/02/22 15:33	09/05/22 17:25	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		09/02/22 15:33	09/05/22 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*09/02/22 15:33*	*09/05/22 17:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*09/02/22 15:33*	*09/05/22 17:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**476**		49.8		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/26/22 13:06	08/27/22 03:27	1
Diesel Range Organics (Over C10-C28)	**391**		49.8		mg/Kg		08/26/22 13:06	08/27/22 03:27	1
Oil Range Organics (Over C28-C36)	**85.2**		49.8		mg/Kg		08/26/22 13:06	08/27/22 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*08/26/22 13:06*	*08/27/22 03:27*	*1*
o-Terphenyl	*95*		*70 - 130*	*08/26/22 13:06*	*08/27/22 03:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1730**		24.9		mg/Kg			08/26/22 00:22	5

Client Sample ID: B-1 (1-2')

Lab Sample ID: 890-2809-2
Matrix: Solid
Date Collected: 08/23/22 10:09
Date Received: 08/23/22 15:20
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1120**		5.03		mg/Kg			08/26/22 00:49	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-1 (2-3')

Date Collected: 08/23/22 10:10
Date Received: 08/23/22 15:20
Sample Depth: 2 - 3

Lab Sample ID: 890-2809-3
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1160**		4.99		mg/Kg			08/26/22 00:58	1

Client Sample ID: B-1 (3-4')

Date Collected: 08/23/22 10:11
Date Received: 08/23/22 15:20
Sample Depth: 3 - 4

Lab Sample ID: 890-2809-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/02/22 15:33	09/05/22 17:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/02/22 15:33	09/05/22 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*09/02/22 15:33*	*09/05/22 17:45*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*09/02/22 15:33*	*09/05/22 17:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**54.5**		50.0		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 04:30	1
Diesel Range Organics (Over C10-C28)	**54.5**		50.0		mg/Kg		08/26/22 13:06	08/27/22 04:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*08/26/22 13:06*	*08/27/22 04:30*	*1*
o-Terphenyl	*101*		*70 - 130*	*08/26/22 13:06*	*08/27/22 04:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1270**		25.1		mg/Kg			08/26/22 01:08	5

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-2 (0-1')

Lab Sample ID: 890-2809-5
Matrix: Solid
Date Collected: 08/23/22 10:35
Date Received: 08/23/22 15:20
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 18:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 18:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 18:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/02/22 15:33	09/05/22 18:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 18:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/02/22 15:33	09/05/22 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*09/02/22 15:33*	*09/05/22 18:06*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*09/02/22 15:33*	*09/05/22 18:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**141**		50.0		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 03:48	1
Diesel Range Organics (Over C10-C28)	**82.8**		50.0		mg/Kg		08/26/22 13:06	08/27/22 03:48	1
Oil Range Organics (Over C28-C36)	**57.7**		50.0		mg/Kg		08/26/22 13:06	08/27/22 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*08/26/22 13:06*	*08/27/22 03:48*	*1*
o-Terphenyl	*90*		*70 - 130*	*08/26/22 13:06*	*08/27/22 03:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**246**		4.99		mg/Kg			08/26/22 01:17	1

Client Sample ID: B-2 (1-2')

Lab Sample ID: 890-2809-6
Matrix: Solid
Date Collected: 08/23/22 10:36
Date Received: 08/23/22 15:20
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**265**		5.01		mg/Kg			08/26/22 22:17	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-2 (2-3')

Lab Sample ID: 890-2809-7
Matrix: Solid
Date Collected: 08/23/22 10:37
Date Received: 08/23/22 15:20
Sample Depth: 2 - 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		5.04		mg/Kg			08/26/22 22:27	1

Client Sample ID: B-2 (3-4')

Lab Sample ID: 890-2809-8
Matrix: Solid
Date Collected: 08/23/22 10:38
Date Received: 08/23/22 15:20
Sample Depth: 3 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 18:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 18:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 18:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/02/22 15:33	09/05/22 18:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 18:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/02/22 15:33	09/05/22 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*09/02/22 15:33*	*09/05/22 18:26*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*09/02/22 15:33*	*09/05/22 18:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**54.2**		49.9		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/26/22 13:06	08/27/22 04:09	1
Diesel Range Organics (Over C10-C28)	**54.2**		49.9		mg/Kg		08/26/22 13:06	08/27/22 04:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/26/22 13:06	08/27/22 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*08/26/22 13:06*	*08/27/22 04:09*	*1*
o-Terphenyl	*93*		*70 - 130*	*08/26/22 13:06*	*08/27/22 04:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**317**		5.05		mg/Kg			08/26/22 22:36	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-3 (0-1')

Lab Sample ID: 890-2809-9
Matrix: Solid
Date Collected: 08/23/22 11:10
Date Received: 08/23/22 15:20
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/02/22 15:33	09/05/22 18:47	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/02/22 15:33	09/05/22 18:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/02/22 15:33	09/05/22 18:47	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/02/22 15:33	09/05/22 18:47	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/02/22 15:33	09/05/22 18:47	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/02/22 15:33	09/05/22 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*09/02/22 15:33*	*09/05/22 18:47*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*09/02/22 15:33*	*09/05/22 18:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 04:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 04:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*08/26/22 13:06*	*08/27/22 04:51*	*1*
o-Terphenyl	*88*		*70 - 130*	*08/26/22 13:06*	*08/27/22 04:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.15**		0.0497		mg/Kg			08/26/22 22:45	1

Client Sample ID: B-3 (1-2')

Lab Sample ID: 890-2809-10
Matrix: Solid
Date Collected: 08/23/22 11:11
Date Received: 08/23/22 15:20
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.73**		0.0495		mg/Kg			08/26/22 22:55	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-3 (2-3')

Lab Sample ID: 890-2809-11
Matrix: Solid
Date Collected: 08/23/22 11:12
Date Received: 08/23/22 15:20
Sample Depth: 2 - 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	524		5.02		mg/Kg			08/26/22 23:04	1

Client Sample ID: B-3 (3-4')

Lab Sample ID: 890-2809-12
Matrix: Solid
Date Collected: 08/23/22 11:13
Date Received: 08/23/22 15:20
Sample Depth: 3 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/02/22 15:33	09/05/22 19:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:08	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/02/22 15:33	09/05/22 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*09/02/22 15:33*	*09/05/22 19:08*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*09/02/22 15:33*	*09/05/22 19:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 05:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 05:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/27/22 05:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*08/26/22 13:06*	*08/27/22 05:12*	*1*
o-Terphenyl	*105*		*70 - 130*	*08/26/22 13:06*	*08/27/22 05:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	680		5.04		mg/Kg			08/26/22 02:59	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-4 (0-1')

Lab Sample ID: 890-2809-13
Matrix: Solid
Date Collected: 08/23/22 11:40
Date Received: 08/23/22 15:20
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/02/22 15:33	09/05/22 19:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 19:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/02/22 15:33	09/05/22 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*09/02/22 15:33*	*09/05/22 19:28*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*09/02/22 15:33*	*09/05/22 19:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1060**		50.0		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 10:36	08/28/22 05:12	1
Diesel Range Organics (Over C10-C28)	**837**		50.0		mg/Kg		08/26/22 10:36	08/28/22 05:12	1
Oil Range Organics (Over C28-C36)	**222**		50.0		mg/Kg		08/26/22 10:36	08/28/22 05:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*08/26/22 10:36*	*08/28/22 05:12*	*1*
o-Terphenyl	*101*		*70 - 130*	*08/26/22 10:36*	*08/28/22 05:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2930**		25.1		mg/Kg			08/26/22 03:08	5

Client Sample ID: B-DUP-01

Lab Sample ID: 890-2809-14
Matrix: Solid
Date Collected: 08/23/22 00:00
Date Received: 08/23/22 15:20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/02/22 15:33	09/05/22 19:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/02/22 15:33	09/05/22 19:49	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/02/22 15:33	09/05/22 19:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/02/22 15:33	09/05/22 19:49	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/02/22 15:33	09/05/22 19:49	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/02/22 15:33	09/05/22 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*09/02/22 15:33*	*09/05/22 19:49*	*1*

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-DUP-01

Lab Sample ID: 890-2809-14
Matrix: Solid
Date Collected: 08/23/22 00:00
Date Received: 08/23/22 15:20

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*09/02/22 15:33*	*09/05/22 19:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1020**		50.0		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 10:36	08/28/22 05:34	1
Diesel Range Organics (Over C10-C28)	**804**		50.0		mg/Kg		08/26/22 10:36	08/28/22 05:34	1
Oil Range Organics (Over C28-C36)	**218**		50.0		mg/Kg		08/26/22 10:36	08/28/22 05:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*116*		*70 - 130*	*08/26/22 10:36*	*08/28/22 05:34*	*1*
o-Terphenyl	*109*		*70 - 130*	*08/26/22 10:36*	*08/28/22 05:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2260**		24.9		mg/Kg			08/26/22 03:35	5

Client Sample ID: B-4 (1-2')

Lab Sample ID: 890-2809-15
Matrix: Solid
Date Collected: 08/23/22 11:41
Date Received: 08/23/22 15:20
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1740**		24.9		mg/Kg			08/26/22 03:45	5

Client Sample ID: B-4 (2-3')

Lab Sample ID: 890-2809-16
Matrix: Solid
Date Collected: 08/23/22 11:42
Date Received: 08/23/22 15:20
Sample Depth: 2 - 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1480**		25.0		mg/Kg			08/26/22 03:54	5

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-4 (3-4')

Lab Sample ID: 890-2809-17
Matrix: Solid
Date Collected: 08/23/22 11:43
Date Received: 08/23/22 15:20
Sample Depth: 3 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 20:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 20:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 20:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/02/22 15:33	09/05/22 20:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/02/22 15:33	09/05/22 20:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/02/22 15:33	09/05/22 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*09/02/22 15:33*	*09/05/22 20:09*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*09/02/22 15:33*	*09/05/22 20:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/26/22 10:36	08/28/22 04:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		08/26/22 10:36	08/28/22 04:30	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/26/22 10:36	08/28/22 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*08/26/22 10:36*	*08/28/22 04:30*	*1*
o-Terphenyl	*99*		*70 - 130*	*08/26/22 10:36*	*08/28/22 04:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1770**		25.2		mg/Kg			08/26/22 04:03	5

Client Sample ID: B-5 (0-1')

Lab Sample ID: 890-2809-18
Matrix: Solid
Date Collected: 08/23/22 12:07
Date Received: 08/23/22 15:20
Sample Depth: 0 - 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**533**		5.02		mg/Kg			08/26/22 04:12	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-5 (1-2')

Lab Sample ID: 890-2809-19
Matrix: Solid
Date Collected: 08/23/22 12:08
Date Received: 08/23/22 15:20
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	334		4.96		mg/Kg			08/26/22 04:21	1

Client Sample ID: B-5 (2-3')

Lab Sample ID: 890-2809-20
Matrix: Solid
Date Collected: 08/23/22 12:09
Date Received: 08/23/22 15:20
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 20:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 20:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 20:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/02/22 15:33	09/05/22 20:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/02/22 15:33	09/05/22 20:30	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/02/22 15:33	09/05/22 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*09/02/22 15:33*	*09/05/22 20:30*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/02/22 15:33*	*09/05/22 20:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			09/05/22 21:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			08/29/22 10:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/26/22 10:36	08/28/22 04:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/26/22 10:36	08/28/22 04:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/26/22 10:36	08/28/22 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*08/26/22 10:36*	*08/28/22 04:51*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/26/22 10:36*	*08/28/22 04:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	402		4.96		mg/Kg			08/26/22 04:31	1

Client Sample ID: TB-1

Lab Sample ID: 890-2809-21
Matrix: Water
Date Collected: 08/23/22 00:00
Date Received: 08/23/22 15:20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			09/02/22 09:00	1

Client Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: TB-1
Date Collected: 08/23/22 00:00
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2809-21
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U *1	0.00200		mg/L			09/02/22 09:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			09/02/22 09:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			09/02/22 09:00	1
o-Xylene	<0.00200	U	0.00200		mg/L			09/02/22 09:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			09/02/22 09:00	1
Methyl tert-butyl ether	<0.0100	U	0.0100		mg/L			09/02/22 09:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*		*09/02/22 09:00*	*1*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*09/02/22 09:00*	*1*

Surrogate Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2809-1	B-1 (0-1')	114	104
890-2809-1 MS	B-1 (0-1')	141 S1+	103
890-2809-1 MSD	B-1 (0-1')	110	110
890-2809-4	B-1 (3-4')	116	100
890-2809-5	B-2 (0-1')	118	104
890-2809-8	B-2 (3-4')	112	97
890-2809-9	B-3 (0-1')	129	81
890-2809-12	B-3 (3-4')	129	95
890-2809-13	B-4 (0-1')	115	101
890-2809-14	B-DUP-01	123	103
890-2809-17	B-4 (3-4')	124	82
890-2809-20	B-5 (2-3')	126	86
LCS 880-33660/1-A	Lab Control Sample	128	101
LCSD 880-33660/2-A	Lab Control Sample Dup	128	102
MB 880-33660/5-A	Method Blank	108	94

Surrogate Legend

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

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DFBZ1	BFB1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2809-21	TB-1	102	117
LCS 880-33496/34	Lab Control Sample	95	114
LCSD 880-33496/35	Lab Control Sample Dup	103	119
MB 880-33416/5-A	Method Blank	80	77
MB 880-33496/39	Method Blank	78	79

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2809-1	B-1 (0-1')	88	95
890-2809-4	B-1 (3-4')	93	101
890-2809-5	B-2 (0-1')	84	90
890-2809-8	B-2 (3-4')	86	93
890-2809-9	B-3 (0-1')	80	88
890-2809-12	B-3 (3-4')	94	105
890-2809-13	B-4 (0-1')	104	101
890-2809-14	B-DUP-01	116	109
890-2809-17	B-4 (3-4')	99	99

Surrogate Summary

Client: AECOM Job ID: 890-2809-1
Project/Site: Amoco Fed. 11 CTB SDG: 60689116

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)								
890-2809-20	B-5 (2-3')	101	102								
LCS 880-33045/2-A	Lab Control Sample	184 S1+	176 S1+								
LCS 880-33061/2-A	Lab Control Sample	93	106								
LCSD 880-33045/3-A	Lab Control Sample Dup	157 S1+	153 S1+								
LCSD 880-33061/3-A	Lab Control Sample Dup	92	103								
MB 880-33045/1-A	Method Blank	95	96								
MB 880-33061/1-A	Method Blank	80	94								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33416/5-A
Matrix: Water
Analysis Batch: 33496

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33416

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L		08/31/22 09:38	09/01/22 11:24	1
Toluene	<0.00200	U	0.00200		mg/L		08/31/22 09:38	09/01/22 11:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/L		08/31/22 09:38	09/01/22 11:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L		08/31/22 09:38	09/01/22 11:24	1
o-Xylene	<0.00200	U	0.00200		mg/L		08/31/22 09:38	09/01/22 11:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/L		08/31/22 09:38	09/01/22 11:24	1
Methyl tert-butyl ether	<0.0100	U	0.0100		mg/L		08/31/22 09:38	09/01/22 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*08/31/22 09:38*	*09/01/22 11:24*	*1*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*08/31/22 09:38*	*09/01/22 11:24*	*1*

Lab Sample ID: MB 880-33496/39
Matrix: Water
Analysis Batch: 33496

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			09/02/22 00:30	1
Toluene	<0.00200	U	0.00200		mg/L			09/02/22 00:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			09/02/22 00:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			09/02/22 00:30	1
o-Xylene	<0.00200	U	0.00200		mg/L			09/02/22 00:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			09/02/22 00:30	1
Methyl tert-butyl ether	<0.0100	U	0.0100		mg/L			09/02/22 00:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*		*09/02/22 00:30*	*1*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*		*09/02/22 00:30*	*1*

Lab Sample ID: LCS 880-33496/34
Matrix: Water
Analysis Batch: 33496

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09235		mg/L		92	70 - 130		
Toluene			0.100	0.08715		mg/L		87	70 - 130		
Ethylbenzene			0.100	0.09242		mg/L		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1884		mg/L		94	70 - 130		
o-Xylene			0.100	0.1100		mg/L		110	70 - 130		
Methyl tert-butyl ether			0.500	0.5325		mg/L		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*

QC Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

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

Lab Sample ID: LCSD 880-33496/35
Matrix: Water
Analysis Batch: 33496

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1079		mg/L		108	70 - 130	16	20
Toluene			0.100	0.1076	*1	mg/L		108	70 - 130	21	20
Ethylbenzene			0.100	0.1051		mg/L		105	70 - 130	13	20
m-Xylene & p-Xylene			0.200	0.2119		mg/L		106	70 - 130	12	20
o-Xylene			0.100	0.1214		mg/L		121	70 - 130	10	20
Methyl tert-butyl ether			0.500	0.6058		mg/L		121	70 - 130	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*

Lab Sample ID: MB 880-33660/5-A
Matrix: Solid
Analysis Batch: 33741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33660

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/02/22 15:33	09/05/22 17:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/02/22 15:33	09/05/22 17:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/02/22 15:33	09/05/22 17:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*09/02/22 15:33*	*09/05/22 17:03*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*09/02/22 15:33*	*09/05/22 17:03*	*1*

Lab Sample ID: LCS 880-33660/1-A
Matrix: Solid
Analysis Batch: 33741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33660

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09189		mg/Kg		92	70 - 130		
Toluene			0.100	0.08925		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.09337		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.2014		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.1157		mg/Kg		116	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*

Lab Sample ID: LCSD 880-33660/2-A
Matrix: Solid
Analysis Batch: 33741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33660

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09911		mg/Kg		99	70 - 130	8	35

QC Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

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

Lab Sample ID: LCSD 880-33660/2-A
Matrix: Solid
Analysis Batch: 33741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33660

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09836		mg/Kg		98	70 - 130	10	35
Ethylbenzene			0.100	0.1033		mg/Kg		103	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2226		mg/Kg		111	70 - 130	10	35
o-Xylene			0.100	0.1281		mg/Kg		128	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*

Lab Sample ID: 890-2809-1 MS
Matrix: Solid
Analysis Batch: 33741

Client Sample ID: B-1 (0-1')
Prep Type: Total/NA
Prep Batch: 33660

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.0998	0.05599	F1	mg/Kg		56	70 - 130
Toluene	<0.00199	U F1	0.0998	0.05008	F1	mg/Kg		50	70 - 130
Ethylbenzene	<0.00199	U F1	0.0998	0.04944	F1	mg/Kg		50	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1012	F1	mg/Kg		51	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.05800	F1	mg/Kg		58	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*

Lab Sample ID: 890-2809-1 MSD
Matrix: Solid
Analysis Batch: 33741

Client Sample ID: B-1 (0-1')
Prep Type: Total/NA
Prep Batch: 33660

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.07600		mg/Kg		76	70 - 130	30	35
Toluene	<0.00199	U F1	0.100	0.06048	F1	mg/Kg		60	70 - 130	19	35
Ethylbenzene	<0.00199	U F1	0.100	0.04987	F1	mg/Kg		50	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.09832	F1	mg/Kg		49	70 - 130	3	35
o-Xylene	<0.00199	U F1	0.100	0.05860	F1	mg/Kg		58	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-33045/1-A
Matrix: Solid
Analysis Batch: 33100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33045

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 10:36	08/27/22 20:44	1

QC Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

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

Lab Sample ID: MB 880-33045/1-A
Matrix: Solid
Analysis Batch: 33100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33045

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/26/22 10:36	08/27/22 20:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/26/22 10:36	08/27/22 20:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*08/26/22 10:36*	*08/27/22 20:44*	*1*
o-Terphenyl	*96*		*70 - 130*	*08/26/22 10:36*	*08/27/22 20:44*	*1*

Lab Sample ID: LCS 880-33045/2-A
Matrix: Solid
Analysis Batch: 33100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	941.4		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1055		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*184*	*S1+*	*70 - 130*
o-Terphenyl	*176*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-33045/3-A
Matrix: Solid
Analysis Batch: 33100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33045

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	794.4		mg/Kg		79	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	913.0		mg/Kg		91	70 - 130	14	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*157*	*S1+*	*70 - 130*
o-Terphenyl	*153*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-33061/1-A
Matrix: Solid
Analysis Batch: 33016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33061

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/26/22 20:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/26/22 20:32	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/26/22 13:06	08/26/22 20:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*08/26/22 13:06*	*08/26/22 20:32*	*1*

QC Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

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

Lab Sample ID: MB 880-33061/1-A
Matrix: Solid
Analysis Batch: 33016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33061

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		70 - 130	08/26/22 13:06	08/26/22 20:32	1

Lab Sample ID: LCS 880-33061/2-A
Matrix: Solid
Analysis Batch: 33016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33061

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	896.9		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	884.2		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-33061/3-A
Matrix: Solid
Analysis Batch: 33016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33061

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	921.3		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	899.8		mg/Kg		90	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	103		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32944/1-A
Matrix: Solid
Analysis Batch: 33093

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/25/22 23:54	1

Lab Sample ID: LCS 880-32944/2-A
Matrix: Solid
Analysis Batch: 33093

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	231.7		mg/Kg		93	90 - 110		

QC Sample Results

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-32944/3-A
Matrix: Solid
Analysis Batch: 33093

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	226.3		mg/Kg		91	90 - 110	2	20

Lab Sample ID: 890-2809-1 MS
Matrix: Solid
Analysis Batch: 33093

Client Sample ID: B-1 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1730		1250	2952		mg/Kg		98	90 - 110

Lab Sample ID: 890-2809-1 MSD
Matrix: Solid
Analysis Batch: 33093

Client Sample ID: B-1 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1730		1250	2899		mg/Kg		94	90 - 110	2	20

Lab Sample ID: 890-2809-11 MS
Matrix: Solid
Analysis Batch: 33093

Client Sample ID: B-3 (2-3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	524		251	757.7		mg/Kg		93	90 - 110

Lab Sample ID: 890-2809-11 MSD
Matrix: Solid
Analysis Batch: 33093

Client Sample ID: B-3 (2-3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	524		251	776.1		mg/Kg		101	90 - 110	2	20

QC Association Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

GC VOA

Prep Batch: 33416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33416/5-A	Method Blank	Total/NA	Water	5035	

Analysis Batch: 33496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-21	TB-1	Total/NA	Water	8021B	
MB 880-33416/5-A	Method Blank	Total/NA	Water	8021B	33416
MB 880-33496/39	Method Blank	Total/NA	Water	8021B	
LCS 880-33496/34	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-33496/35	Lab Control Sample Dup	Total/NA	Water	8021B	

Prep Batch: 33660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	5035	
890-2809-4	B-1 (3-4')	Total/NA	Solid	5035	
890-2809-5	B-2 (0-1')	Total/NA	Solid	5035	
890-2809-8	B-2 (3-4')	Total/NA	Solid	5035	
890-2809-9	B-3 (0-1')	Total/NA	Solid	5035	
890-2809-12	B-3 (3-4')	Total/NA	Solid	5035	
890-2809-13	B-4 (0-1')	Total/NA	Solid	5035	
890-2809-14	B-DUP-01	Total/NA	Solid	5035	
890-2809-17	B-4 (3-4')	Total/NA	Solid	5035	
890-2809-20	B-5 (2-3')	Total/NA	Solid	5035	
MB 880-33660/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33660/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33660/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2809-1 MS	B-1 (0-1')	Total/NA	Solid	5035	
890-2809-1 MSD	B-1 (0-1')	Total/NA	Solid	5035	

Analysis Batch: 33741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	8021B	33660
890-2809-4	B-1 (3-4')	Total/NA	Solid	8021B	33660
890-2809-5	B-2 (0-1')	Total/NA	Solid	8021B	33660
890-2809-8	B-2 (3-4')	Total/NA	Solid	8021B	33660
890-2809-9	B-3 (0-1')	Total/NA	Solid	8021B	33660
890-2809-12	B-3 (3-4')	Total/NA	Solid	8021B	33660
890-2809-13	B-4 (0-1')	Total/NA	Solid	8021B	33660
890-2809-14	B-DUP-01	Total/NA	Solid	8021B	33660
890-2809-17	B-4 (3-4')	Total/NA	Solid	8021B	33660
890-2809-20	B-5 (2-3')	Total/NA	Solid	8021B	33660
MB 880-33660/5-A	Method Blank	Total/NA	Solid	8021B	33660
LCS 880-33660/1-A	Lab Control Sample	Total/NA	Solid	8021B	33660
LCSD 880-33660/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33660
890-2809-1 MS	B-1 (0-1')	Total/NA	Solid	8021B	33660
890-2809-1 MSD	B-1 (0-1')	Total/NA	Solid	8021B	33660

Analysis Batch: 33779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	Total BTEX	
890-2809-4	B-1 (3-4')	Total/NA	Solid	Total BTEX	
890-2809-5	B-2 (0-1')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

GC VOA (Continued)

Analysis Batch: 33779 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-8	B-2 (3-4')	Total/NA	Solid	Total BTEX	
890-2809-9	B-3 (0-1')	Total/NA	Solid	Total BTEX	
890-2809-12	B-3 (3-4')	Total/NA	Solid	Total BTEX	
890-2809-13	B-4 (0-1')	Total/NA	Solid	Total BTEX	
890-2809-14	B-DUP-01	Total/NA	Solid	Total BTEX	
890-2809-17	B-4 (3-4')	Total/NA	Solid	Total BTEX	
890-2809-20	B-5 (2-3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 33016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	8015B NM	33061
890-2809-4	B-1 (3-4')	Total/NA	Solid	8015B NM	33061
890-2809-5	B-2 (0-1')	Total/NA	Solid	8015B NM	33061
890-2809-8	B-2 (3-4')	Total/NA	Solid	8015B NM	33061
890-2809-9	B-3 (0-1')	Total/NA	Solid	8015B NM	33061
890-2809-12	B-3 (3-4')	Total/NA	Solid	8015B NM	33061
MB 880-33061/1-A	Method Blank	Total/NA	Solid	8015B NM	33061
LCS 880-33061/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33061
LCSD 880-33061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33061

Prep Batch: 33045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-13	B-4 (0-1')	Total/NA	Solid	8015NM Prep	
890-2809-14	B-DUP-01	Total/NA	Solid	8015NM Prep	
890-2809-17	B-4 (3-4')	Total/NA	Solid	8015NM Prep	
890-2809-20	B-5 (2-3')	Total/NA	Solid	8015NM Prep	
MB 880-33045/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33045/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-33045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 33061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	8015NM Prep	
890-2809-4	B-1 (3-4')	Total/NA	Solid	8015NM Prep	
890-2809-5	B-2 (0-1')	Total/NA	Solid	8015NM Prep	
890-2809-8	B-2 (3-4')	Total/NA	Solid	8015NM Prep	
890-2809-9	B-3 (0-1')	Total/NA	Solid	8015NM Prep	
890-2809-12	B-3 (3-4')	Total/NA	Solid	8015NM Prep	
MB 880-33061/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33061/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-33061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 33100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-13	B-4 (0-1')	Total/NA	Solid	8015B NM	33045
890-2809-14	B-DUP-01	Total/NA	Solid	8015B NM	33045
890-2809-17	B-4 (3-4')	Total/NA	Solid	8015B NM	33045
890-2809-20	B-5 (2-3')	Total/NA	Solid	8015B NM	33045
MB 880-33045/1-A	Method Blank	Total/NA	Solid	8015B NM	33045

QC Association Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

GC Semi VOA (Continued)

Analysis Batch: 33100 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-33045/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33045
LCSD 880-33045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33045

Analysis Batch: 33177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	8015 NM	
890-2809-4	B-1 (3-4')	Total/NA	Solid	8015 NM	
890-2809-5	B-2 (0-1')	Total/NA	Solid	8015 NM	
890-2809-8	B-2 (3-4')	Total/NA	Solid	8015 NM	
890-2809-9	B-3 (0-1')	Total/NA	Solid	8015 NM	
890-2809-12	B-3 (3-4')	Total/NA	Solid	8015 NM	
890-2809-13	B-4 (0-1')	Total/NA	Solid	8015 NM	
890-2809-14	B-DUP-01	Total/NA	Solid	8015 NM	
890-2809-17	B-4 (3-4')	Total/NA	Solid	8015 NM	
890-2809-20	B-5 (2-3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Soluble	Solid	DI Leach	
890-2809-2	B-1 (1-2')	Soluble	Solid	DI Leach	
890-2809-3	B-1 (2-3')	Soluble	Solid	DI Leach	
890-2809-4	B-1 (3-4')	Soluble	Solid	DI Leach	
890-2809-5	B-2 (0-1')	Soluble	Solid	DI Leach	
890-2809-6	B-2 (1-2')	Soluble	Solid	DI Leach	
890-2809-7	B-2 (2-3')	Soluble	Solid	DI Leach	
890-2809-8	B-2 (3-4')	Soluble	Solid	DI Leach	
890-2809-9	B-3 (0-1')	Soluble	Solid	DI Leach	
890-2809-10	B-3 (1-2')	Soluble	Solid	DI Leach	
890-2809-11	B-3 (2-3')	Soluble	Solid	DI Leach	
890-2809-12	B-3 (3-4')	Soluble	Solid	DI Leach	
890-2809-13	B-4 (0-1')	Soluble	Solid	DI Leach	
890-2809-14	B-DUP-01	Soluble	Solid	DI Leach	
890-2809-15	B-4 (1-2')	Soluble	Solid	DI Leach	
890-2809-16	B-4 (2-3')	Soluble	Solid	DI Leach	
890-2809-17	B-4 (3-4')	Soluble	Solid	DI Leach	
890-2809-18	B-5 (0-1')	Soluble	Solid	DI Leach	
890-2809-19	B-5 (1-2')	Soluble	Solid	DI Leach	
890-2809-20	B-5 (2-3')	Soluble	Solid	DI Leach	
MB 880-32944/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32944/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32944/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2809-1 MS	B-1 (0-1')	Soluble	Solid	DI Leach	
890-2809-1 MSD	B-1 (0-1')	Soluble	Solid	DI Leach	
890-2809-11 MS	B-3 (2-3')	Soluble	Solid	DI Leach	
890-2809-11 MSD	B-3 (2-3')	Soluble	Solid	DI Leach	

Analysis Batch: 33093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Soluble	Solid	300.0	32944

QC Association Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

HPLC/IC (Continued)

Analysis Batch: 33093 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-2	B-1 (1-2')	Soluble	Solid	300.0	32944
890-2809-3	B-1 (2-3')	Soluble	Solid	300.0	32944
890-2809-4	B-1 (3-4')	Soluble	Solid	300.0	32944
890-2809-5	B-2 (0-1')	Soluble	Solid	300.0	32944
890-2809-6	B-2 (1-2')	Soluble	Solid	300.0	32944
890-2809-7	B-2 (2-3')	Soluble	Solid	300.0	32944
890-2809-8	B-2 (3-4')	Soluble	Solid	300.0	32944
890-2809-9	B-3 (0-1')	Soluble	Solid	300.0	32944
890-2809-10	B-3 (1-2')	Soluble	Solid	300.0	32944
890-2809-11	B-3 (2-3')	Soluble	Solid	300.0	32944
890-2809-12	B-3 (3-4')	Soluble	Solid	300.0	32944
890-2809-13	B-4 (0-1')	Soluble	Solid	300.0	32944
890-2809-14	B-DUP-01	Soluble	Solid	300.0	32944
890-2809-15	B-4 (1-2')	Soluble	Solid	300.0	32944
890-2809-16	B-4 (2-3')	Soluble	Solid	300.0	32944
890-2809-17	B-4 (3-4')	Soluble	Solid	300.0	32944
890-2809-18	B-5 (0-1')	Soluble	Solid	300.0	32944
890-2809-19	B-5 (1-2')	Soluble	Solid	300.0	32944
890-2809-20	B-5 (2-3')	Soluble	Solid	300.0	32944
MB 880-32944/1-A	Method Blank	Soluble	Solid	300.0	32944
LCS 880-32944/2-A	Lab Control Sample	Soluble	Solid	300.0	32944
LCSD 880-32944/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32944
890-2809-1 MS	B-1 (0-1')	Soluble	Solid	300.0	32944
890-2809-1 MSD	B-1 (0-1')	Soluble	Solid	300.0	32944
890-2809-11 MS	B-3 (2-3')	Soluble	Solid	300.0	32944
890-2809-11 MSD	B-3 (2-3')	Soluble	Solid	300.0	32944

General Chemistry

Analysis Batch: 32942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2809-1	B-1 (0-1')	Total/NA	Solid	D2216	
890-2809-2	B-1 (1-2')	Total/NA	Solid	D2216	
890-2809-3	B-1 (2-3')	Total/NA	Solid	D2216	
890-2809-4	B-1 (3-4')	Total/NA	Solid	D2216	
890-2809-5	B-2 (0-1')	Total/NA	Solid	D2216	
890-2809-6	B-2 (1-2')	Total/NA	Solid	D2216	
890-2809-7	B-2 (2-3')	Total/NA	Solid	D2216	
890-2809-8	B-2 (3-4')	Total/NA	Solid	D2216	
890-2809-9	B-3 (0-1')	Total/NA	Solid	D2216	
890-2809-10	B-3 (1-2')	Total/NA	Solid	D2216	
890-2809-11	B-3 (2-3')	Total/NA	Solid	D2216	
890-2809-12	B-3 (3-4')	Total/NA	Solid	D2216	
890-2809-13	B-4 (0-1')	Total/NA	Solid	D2216	
890-2809-14	B-DUP-01	Total/NA	Solid	D2216	
890-2809-15	B-4 (1-2')	Total/NA	Solid	D2216	
890-2809-16	B-4 (2-3')	Total/NA	Solid	D2216	
890-2809-17	B-4 (3-4')	Total/NA	Solid	D2216	
890-2809-18	B-5 (0-1')	Total/NA	Solid	D2216	
890-2809-19	B-5 (1-2')	Total/NA	Solid	D2216	
890-2809-20	B-5 (2-3')	Total/NA	Solid	D2216	

QC Association Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

General Chemistry (Continued)

Analysis Batch: 32942 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-32942/1	Method Blank	Total/NA	Solid	D2216	
890-2809-1 DU	B-1 (0-1')	Total/NA	Solid	D2216	
890-2809-11 DU	B-3 (2-3')	Total/NA	Solid	D2216	

Lab Chronicle

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-1 (0-1')

Lab Sample ID: 890-2809-1
Date Collected: 08/23/22 10:08
Matrix: Solid
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 17:25	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	33061	08/26/22 13:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33016	08/27/22 03:27	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 00:22	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-1 (1-2')

Lab Sample ID: 890-2809-2
Date Collected: 08/23/22 10:09
Matrix: Solid
Date Received: 08/23/22 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 00:49	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-1 (2-3')

Lab Sample ID: 890-2809-3
Date Collected: 08/23/22 10:10
Matrix: Solid
Date Received: 08/23/22 15:20

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	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 00:58	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-1 (3-4')

Lab Sample ID: 890-2809-4
Date Collected: 08/23/22 10:11
Matrix: Solid
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 17:45	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33061	08/26/22 13:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33016	08/27/22 04:30	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 01:08	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-2 (0-1')

Lab Sample ID: 890-2809-5
Date Collected: 08/23/22 10:35
Matrix: Solid
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 18:06	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33061	08/26/22 13:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33016	08/27/22 03:48	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 01:17	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-2 (1-2')

Lab Sample ID: 890-2809-6
Date Collected: 08/23/22 10:36
Matrix: Solid
Date Received: 08/23/22 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 22:17	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-2 (2-3')

Lab Sample ID: 890-2809-7
Date Collected: 08/23/22 10:37
Matrix: Solid
Date Received: 08/23/22 15:20

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	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 22:27	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-2 (3-4')

Lab Sample ID: 890-2809-8
Date Collected: 08/23/22 10:38
Matrix: Solid
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 18:26	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33061	08/26/22 13:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33016	08/27/22 04:09	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 22:36	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-3 (0-1')

Lab Sample ID: 890-2809-9
Matrix: Solid
Date Collected: 08/23/22 11:10
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 18:47	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33061	08/26/22 13:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33016	08/27/22 04:51	SM	EET MID
Soluble	Leach	DI Leach			5,03 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 22:45	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-3 (1-2')

Lab Sample ID: 890-2809-10
Matrix: Solid
Date Collected: 08/23/22 11:11
Date Received: 08/23/22 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5,05 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 22:55	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-3 (2-3')

Lab Sample ID: 890-2809-11
Matrix: Solid
Date Collected: 08/23/22 11:12
Date Received: 08/23/22 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 23:04	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-3 (3-4')

Lab Sample ID: 890-2809-12
Matrix: Solid
Date Collected: 08/23/22 11:13
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 19:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33061	08/26/22 13:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33016	08/27/22 05:12	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 02:59	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-4 (0-1')

Lab Sample ID: 890-2809-13
Matrix: Solid
Date Collected: 08/23/22 11:40
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 19:28	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33045	08/26/22 10:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33100	08/28/22 05:12	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 03:08	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-DUP-01

Lab Sample ID: 890-2809-14
Matrix: Solid
Date Collected: 08/23/22 00:00
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 19:49	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33045	08/26/22 10:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33100	08/28/22 05:34	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 03:35	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-4 (1-2')

Lab Sample ID: 890-2809-15
Matrix: Solid
Date Collected: 08/23/22 11:41
Date Received: 08/23/22 15:20

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	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 03:45	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-4 (2-3')

Lab Sample ID: 890-2809-16
Matrix: Solid
Date Collected: 08/23/22 11:42
Date Received: 08/23/22 15:20

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	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 03:54	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: B-4 (3-4')

Lab Sample ID: 890-2809-17

Date Collected: 08/23/22 11:43
Matrix: Solid
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 20:09	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	33045	08/26/22 10:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33100	08/28/22 04:30	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		5	0 mL	0 mL	33093	08/26/22 04:03	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-5 (0-1')

Lab Sample ID: 890-2809-18

Date Collected: 08/23/22 12:07
Matrix: Solid
Date Received: 08/23/22 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 04:12	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-5 (1-2')

Lab Sample ID: 890-2809-19

Date Collected: 08/23/22 12:08
Matrix: Solid
Date Received: 08/23/22 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33093	08/26/22 04:21	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Client Sample ID: B-5 (2-3')

Lab Sample ID: 890-2809-20

Date Collected: 08/23/22 12:09
Matrix: Solid
Date Received: 08/23/22 15:20

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	33660	09/02/22 15:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33741	09/05/22 20:30	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33779	09/05/22 21:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33177	08/29/22 10:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33045	08/26/22 10:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33100	08/28/22 04:51	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32944	08/25/22 12:19	KS	EET MID
Soluble	Analysis	300.0		1			33093	08/26/22 04:31	SMC	EET MID
Total/NA	Analysis	D2216		1			32942	08/25/22 12:12	SMC	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Client Sample ID: TB-1

Date Collected: 08/23/22 00:00
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2809-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	33496	09/02/22 09:00	MR	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

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
D2216		Solid	Percent Solids
Total BTEX		Solid	Total BTEX

Method Summary

Client: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

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
D2216	Percent Moisture	ASTM	EET MID
5030B	Purge and Trap	SW846	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: AECOM
Project/Site: Amoco Fed. 11 CTB

Job ID: 890-2809-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2809-1	B-1 (0-1')	Solid	08/23/22 10:08	08/23/22 15:20	0 - 1
890-2809-2	B-1 (1-2')	Solid	08/23/22 10:09	08/23/22 15:20	1 - 2
890-2809-3	B-1 (2-3')	Solid	08/23/22 10:10	08/23/22 15:20	2 - 3
890-2809-4	B-1 (3-4')	Solid	08/23/22 10:11	08/23/22 15:20	3 - 4
890-2809-5	B-2 (0-1')	Solid	08/23/22 10:35	08/23/22 15:20	0 - 1
890-2809-6	B-2 (1-2')	Solid	08/23/22 10:36	08/23/22 15:20	1 - 2
890-2809-7	B-2 (2-3')	Solid	08/23/22 10:37	08/23/22 15:20	2 - 3
890-2809-8	B-2 (3-4')	Solid	08/23/22 10:38	08/23/22 15:20	3 - 4
890-2809-9	B-3 (0-1')	Solid	08/23/22 11:10	08/23/22 15:20	0 - 1
890-2809-10	B-3 (1-2')	Solid	08/23/22 11:11	08/23/22 15:20	1 - 2
890-2809-11	B-3 (2-3')	Solid	08/23/22 11:12	08/23/22 15:20	2 - 3
890-2809-12	B-3 (3-4')	Solid	08/23/22 11:13	08/23/22 15:20	3 - 4
890-2809-13	B-4 (0-1')	Solid	08/23/22 11:40	08/23/22 15:20	0 - 1
890-2809-14	B-DUP-01	Solid	08/23/22 00:00	08/23/22 15:20	
890-2809-15	B-4 (1-2')	Solid	08/23/22 11:41	08/23/22 15:20	1 - 2
890-2809-16	B-4 (2-3')	Solid	08/23/22 11:42	08/23/22 15:20	2 - 3
890-2809-17	B-4 (3-4')	Solid	08/23/22 11:43	08/23/22 15:20	3 - 4
890-2809-18	B-5 (0-1')	Solid	08/23/22 12:07	08/23/22 15:20	0 - 1
890-2809-19	B-5 (1-2')	Solid	08/23/22 12:08	08/23/22 15:20	1 - 2
890-2809-20	B-5 (2-3')	Solid	08/23/22 12:09	08/23/22 15:20	2 - 3
890-2809-21	TB-1	Water	08/23/22 00:00	08/23/22 15:20	

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 3

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD, STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email: bradley.wynne@aecom.com		

Work Order Comments

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

Project Name:	~~Amoco Fed. 11~~ CTB	Turn Around	
Project Number:	606891116	☐ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date: 5-day TAT	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-087
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	19.6
Total Containers:		Corrected Temperature:	19.4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool	Chloride (EPA 300)	Cool	BTEX (8021B)	Cool	TPH (8015M)	Cool	Percent Moisture
B-1 (0-1')	Soil	8/23/22	10:08	0-1'	G	1			X		X		X		X
B-1 (1-2')	Soil	8/23/22	10:09	1-2'	G	1			X						X
B-1 (2-3')	Soil	8/23/22	10:10	2-3'	G	1			X						X
B-1 (3-4')	Soil	8/23/22	10:11	3-4'	G	1			X		X		X		X
B-2 (0-1')	Soil	8/23/22	10:35	0-1'	G	1			X		X		X		X
B-2 (1-2')	Soil	8/23/22	10:36	1-2'	G	1			X						X
B-2 (2-3')	Soil	8/23/22	10:37	2-3'	G	1			X						X
B-2 (3-4')	Soil	8/23/22	10:38	3-4'	G	1			X		X		X		X
B-3 (0-1')	Soil	8/23/22	11:10	0-1'	G	1			X		X		X		X
B-3 (1-2')	Soil	8/23/22	11:11	1-2'	G	1			X						X

890-2809 Chain of Custody

Preservative Codes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	8.23.22 1518	8/23/22 15:20	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 3

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD, STE. 400	Address:	
City, State ZIP:	DALLAS, TX, 75240	City, State ZIP:	
Phone:	214-971-1829 Email: bradley.wynne@aecom.com		

Work Order Comments

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

Project Name:	Amoco Fed. 11 CTB	Turn Around	
Project Number:	606891116	☐ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date: 5-day TAT	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	
Total Containers:		Corrected Temperature:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool / Chloride (EPA 300)	Cool / BTEX (8021B)	Cool / TPH (8015M)	Cool / Percent Moisture
B-3 (2-3')	Soil	8/23/22	11:12	2-3'	G	1		X			X
B-3 (3-4')	Soil	8/23/22	11:13	3-4'	G	1		X	X	X	X
B-4 (0-1')	Soil	8/23/22	11:40	0-1'	G	1		X	X	X	X
DUP-01	Soil	8/23/22	—	—	G	1		X	X	X	X
B-4 (1-2')	Soil	8/23/22	11:41	1-2'	G	1		X			X
B-4 (2-3')	Soil	8/23/22	11:42	2-3'	G	1		X			X
B-4 (3-4')	Soil	8/23/22	11:43	3-4'	G	1		X	X	X	X
B-5 (0-1')	Soil	8/23/22	12:07	0-1'	G	1		X			X
B-5 (1-2')	Soil	8/23/22	12:08	1-2'	G	1		X			X
B-5 (2-3')	Soil	8/23/22	12:09	2-3'	G	1		X	X	X	X

Preservative Codes

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

Sample Comments

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/23/22 15:20	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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Work Order No: _____

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Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD, STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco Fed. 11 CTB	Turn Around	
Project Number:	606891116	☐ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date: 5-day TAT	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX (8021B)
TB-1	Water	8/23/22	—	—	G	1	HC	X

Preservative Codes

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

Sample Comments

Trip Blank

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8/23/22 15:20	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-2809-1
SDG Number: 60689116

Login Number: 2809
List Number: 1
Creator: Clifton, Cloe

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.	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	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-2809-1
SDG Number: 60689116

Login Number: 2809
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/25/22 10:42 AM

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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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2810-1
Laboratory Sample Delivery Group: 60689116
Client Project/Site: amoco fed. 11 ctb

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by:
9/12/2022 4:22:56 PM

John Builes, Project Manager
(561)558-4549
John.Builes@et.eurofinsus.com

Client: AECOM
Project/Site: amoco fed. 11 ctb

Laboratory Job ID: 890-2810-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

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: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Job ID: 890-2810-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2810-1

Receipt
The samples were received on 8/23/2022 3:20 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 19.4°C

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-33652/2-A) and (LCSD 880-33652/3-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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Client Sample Results

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Client Sample ID: B-8 (0-1')
Lab Sample ID: 890-2810-8
Date Collected: 08/23/22 13:35
Matrix: Solid
Date Received: 08/23/22 15:20
Percent Solids: 93.5
Sample Depth: 0 - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<53.4	U	53.4		mg/Kg			09/06/22 12:59	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<53.4	U	53.4		mg/Kg	☼	09/02/22 13:37	09/03/22 01:19	1
Diesel Range Organics (Over C10-C28)	<53.4	U	53.4		mg/Kg	☼	09/02/22 13:37	09/03/22 01:19	1
Oil Range Organics (Over C28-C36)	<53.4	U	53.4		mg/Kg	☼	09/02/22 13:37	09/03/22 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*09/02/22 13:37*	*09/03/22 01:19*	*1*
o-Terphenyl	*102*		*70 - 130*	*09/02/22 13:37*	*09/03/22 01:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1160**		26.8		mg/Kg	☼		09/07/22 18:04	5

Client Sample ID: B-8 (1-2')
Lab Sample ID: 890-2810-9
Date Collected: 08/23/22 13:36
Matrix: Solid
Date Received: 08/23/22 15:20
Percent Solids: 94.3
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**477**		5.34		mg/Kg	☼		09/07/22 18:09	1

Client Sample ID: B-8 (2-3')
Lab Sample ID: 890-2810-10
Date Collected: 08/23/22 13:37
Matrix: Solid
Date Received: 08/23/22 15:20
Percent Solids: 91.9
Sample Depth: 2 - 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**624**		5.45		mg/Kg	☼		09/07/22 18:24	1

Client Sample ID: B-9 (0-1')
Lab Sample ID: 890-2810-11
Date Collected: 08/23/22 14:00
Matrix: Solid
Date Received: 08/23/22 15:20
Percent Solids: 95.8
Sample Depth: 0 - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<52.2	U	52.2		mg/Kg			09/06/22 12:59	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<52.2	U	52.2		mg/Kg	☼	09/02/22 13:37	09/03/22 01:41	1
Diesel Range Organics (Over C10-C28)	<52.2	U	52.2		mg/Kg	☼	09/02/22 13:37	09/03/22 01:41	1
Oil Range Organics (Over C28-C36)	<52.2	U	52.2		mg/Kg	☼	09/02/22 13:37	09/03/22 01:41	1

Client Sample Results

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Client Sample ID: B-9 (0-1')
Date Collected: 08/23/22 14:00
Date Received: 08/23/22 15:20
Sample Depth: 0 - 1

Lab Sample ID: 890-2810-11
Matrix: Solid
Percent Solids: 95.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	09/02/22 13:37	09/03/22 01:41	1
o-Terphenyl	102		70 - 130	09/02/22 13:37	09/03/22 01:41	1

Surrogate Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-2810-8	B-8 (0-1')	104	102								
890-2810-11	B-9 (0-1')	101	102								
LCS 880-33652/2-A	Lab Control Sample	141 S1+	144 S1+								
LCSD 880-33652/3-A	Lab Control Sample Dup	144 S1+	146 S1+								
MB 880-33652/1-A	Method Blank	110	115								

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

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

Lab Sample ID: MB 880-33652/1-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33652

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/02/22 19:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/02/22 19:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/02/22 19:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*09/02/22 13:37*	*09/02/22 19:12*	*1*
o-Terphenyl	*115*		*70 - 130*	*09/02/22 13:37*	*09/02/22 19:12*	*1*

Lab Sample ID: LCS 880-33652/2-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33652

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	897.3		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	906.9		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*141*	*S1+*	*70 - 130*
o-Terphenyl	*144*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-33652/3-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33652

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	916.7		mg/Kg		92	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	923.6		mg/Kg		92	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*144*	*S1+*	*70 - 130*
o-Terphenyl	*146*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33690/1-A
Matrix: Solid
Analysis Batch: 33886

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/07/22 16:56	1

QC Sample Results

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-33690/2-A
Matrix: Solid
Analysis Batch: 33886

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	261.9		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-33690/3-A
Matrix: Solid
Analysis Batch: 33886

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	261.6		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

GC Semi VOA

Analysis Batch: 33584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-8	B-8 (0-1')	Total/NA	Solid	8015B NM	33652
890-2810-11	B-9 (0-1')	Total/NA	Solid	8015B NM	33652
MB 880-33652/1-A	Method Blank	Total/NA	Solid	8015B NM	33652
LCS 880-33652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33652
LCSD 880-33652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33652

Prep Batch: 33652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-8	B-8 (0-1')	Total/NA	Solid	8015NM Prep	
890-2810-11	B-9 (0-1')	Total/NA	Solid	8015NM Prep	
MB 880-33652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-33652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 33843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-8	B-8 (0-1')	Total/NA	Solid	8015 NM	
890-2810-11	B-9 (0-1')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 33690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-8	B-8 (0-1')	Soluble	Solid	DI Leach	
890-2810-9	B-8 (1-2')	Soluble	Solid	DI Leach	
890-2810-10	B-8 (2-3')	Soluble	Solid	DI Leach	
MB 880-33690/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33690/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33690/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 33886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-8	B-8 (0-1')	Soluble	Solid	300.0	33690
890-2810-9	B-8 (1-2')	Soluble	Solid	300.0	33690
890-2810-10	B-8 (2-3')	Soluble	Solid	300.0	33690
MB 880-33690/1-A	Method Blank	Soluble	Solid	300.0	33690
LCS 880-33690/2-A	Lab Control Sample	Soluble	Solid	300.0	33690
LCSD 880-33690/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33690

General Chemistry

Analysis Batch: 33657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-8	B-8 (0-1')	Total/NA	Solid	D2216	
890-2810-9	B-8 (1-2')	Total/NA	Solid	D2216	
890-2810-10	B-8 (2-3')	Total/NA	Solid	D2216	
890-2810-11	B-9 (0-1')	Total/NA	Solid	D2216	
MB 880-33657/1	Method Blank	Total/NA	Solid	D2216	
890-2810-8 DU	B-8 (0-1')	Total/NA	Solid	D2216	

Lab Chronicle

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Client Sample ID: B-8 (0-1')
Date Collected: 08/23/22 13:35
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			33843	09/06/22 12:59	SM	EET MID
Total/NA	Analysis	D2216		1			33657	09/02/22 15:14	SMC	EET MID

Client Sample ID: B-8 (0-1')
Date Collected: 08/23/22 13:35
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-8
Matrix: Solid
Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33652	09/02/22 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/03/22 01:19	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	33690	09/03/22 13:21	KS	EET MID
Soluble	Analysis	300.0		5			33886	09/07/22 18:04	CH	EET MID

Client Sample ID: B-8 (1-2')
Date Collected: 08/23/22 13:36
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D2216		1			33657	09/02/22 15:14	SMC	EET MID

Client Sample ID: B-8 (1-2')
Date Collected: 08/23/22 13:36
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-9
Matrix: Solid
Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	33690	09/03/22 13:21	KS	EET MID
Soluble	Analysis	300.0		1			33886	09/07/22 18:09	CH	EET MID

Client Sample ID: B-8 (2-3')
Date Collected: 08/23/22 13:37
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D2216		1			33657	09/02/22 15:14	SMC	EET MID

Client Sample ID: B-8 (2-3')
Date Collected: 08/23/22 13:37
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-10
Matrix: Solid
Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	33690	09/03/22 13:21	KS	EET MID
Soluble	Analysis	300.0		1			33886	09/07/22 18:24	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Client Sample ID: B-9 (0-1')
Date Collected: 08/23/22 14:00
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-11
Matrix: Solid

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			33843	09/06/22 12:59	SM	EET MID
Total/NA	Analysis	D2216		1			33657	09/02/22 15:14	SMC	EET MID

Client Sample ID: B-9 (0-1')
Date Collected: 08/23/22 14:00
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-11
Matrix: Solid
Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33652	09/02/22 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/03/22 01:41	SM	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

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
D2216		Solid	Percent Solids

Method Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

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	MCAWW	EET MID
D2216	Percent Moisture	ASTM	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.

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2810-8	B-8 (0-1')	Solid	08/23/22 13:35	08/23/22 15:20	0 - 1
890-2810-9	B-8 (1-2')	Solid	08/23/22 13:36	08/23/22 15:20	1 - 2
890-2810-10	B-8 (2-3')	Solid	08/23/22 13:37	08/23/22 15:20	2 - 3
890-2810-11	B-9 (0-1')	Solid	08/23/22 14:00	08/23/22 15:20	0 - 1

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco Fed. 11 CTB	Turn Around	
Project Number:	60689116	☒ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date:	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	19.4
Total Containers:		Corrected Temperature:	19.4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Cool	Cool	Cool	Cool	Parameters	Sample Comments
								Chloride (EPA 300)	BTEX (8021B)	TPH (8015M)	Percent Moisture		
B-6 (0-1')	Soil	8/23/22	12:28	0-1'	G	1		X			X		HOLD
B-6 (1-2')	Soil	8/23/22	12:29	1-2'	G	1		X			X		HOLD
B-6 (2-3')	Soil	8/23/22	12:30	2-3'	G	1		X	X	X	X		HOLD
B-7 (0-1')	Soil	8/23/22	12:50	0-1'	G	1		X	X	X	X		HOLD
B-7 (1-2')	Soil	8/23/22	12:51	1-2'	G	1		X			X		HOLD
B-7 (2-3')	Soil	8/23/22	12:52	2-3'	G	1		X			X		HOLD
B-7 (3-4')	Soil	8/23/22	12:53	3-4'	G	1		X	X	X	X		HOLD
B-8 (0-1')	Soil	8/23/22	13:35	0-1'	G	1		X			X		HOLD
B-8 (1-2')	Soil	8/23/22	13:36	1-2'	G	1		X			X		HOLD
B-8 (2-3')	Soil	8/23/22	13:37	2-3'	G	1		X	X	X	X		HOLD

890-2810 Chain of Custody

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
NaHSO 4: NABIS
$Na_2S_2O_3$: NaSO 3
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/23/22 15:20	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco Fed. 11 CTB	Turn Around	
Project Number:	60689116	☒ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date:	
Sampler's Name:	B. Cloud, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Chloride (EPA 300)	BTEX (8021B)	TPH (8015M)	Percent Moisture	Sample Comments
B-9 (0-1')	Soil	8/23/22	14:00	0-1'	G	1	Cool	X			X	HOLD
B-9 (1-2')	Soil	8/23/22	14:01	1-2'	G	1	Cool	X	X	X	X	HOLD
B-9 (2-3')	Soil	8/23/22	14:02	2-3'	G	1	Cool	X			X	HOLD
B-9 (3-4')	Soil	8/23/22	14:03	3-4'	G	1	Cool	X	X	X	X	HOLD

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/23/22 15:00	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-2810-1
SDG Number: 60689116

Login Number: 2810
List Number: 1
Creator: Clifton, Cloe

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.	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	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-2810-1
SDG Number: 60689116

Login Number: 2810
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/29/22 09:19 AM

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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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2810-2
Laboratory Sample Delivery Group: 60689116
Client Project/Site: amoco fed. 11 ctb

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by:
9/16/2022 3:57:53 PM

John Builes, Project Manager
(561)558-4549
John.Builes@et.eurofinsus.com

Client: AECOM
Project/Site: amoco fed. 11 ctb

Laboratory Job ID: 890-2810-2
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM Job ID: 890-2810-2
Project/Site: amoco fed. 11 ctb SDG: 60689116

Qualifiers

HPLC/IC

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

Glossary

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

Case Narrative

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

Job ID: 890-2810-2

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2810-2

Receipt
The samples were received on 8/23/2022 3:20 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 19.4°C

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

General Chemistry
Method MOISTURE_2540G: The following sample(s) was analyzed outside of analytical holding time due to sample being activated after holding time expired.B-7 (3-4') (890-2810-7).

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

Client Sample Results

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

Client Sample ID: B-7 (3-4')
Date Collected: 08/23/22 12:53
Date Received: 08/23/22 15:20
Sample Depth: 3 - 4

Lab Sample ID: 890-2810-7
Matrix: Solid
Percent Solids: 90.6

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3610		27.4		mg/Kg	☼		09/15/22 20:06	5

QC Sample Results

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34308/1-A
Matrix: Solid
Analysis Batch: 34575

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/15/22 17:36	1

Lab Sample ID: LCS 880-34308/2-A
Matrix: Solid
Analysis Batch: 34575

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	243.4		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-34308/3-A
Matrix: Solid
Analysis Batch: 34575

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	252.3		mg/Kg		101	90 - 110	4	20

QC Association Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

HPLC/IC

Leach Batch: 34308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-7	B-7 (3-4')	Soluble	Solid	DI Leach	
MB 880-34308/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34308/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34308/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 34575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-7	B-7 (3-4')	Soluble	Solid	300.0	34308
MB 880-34308/1-A	Method Blank	Soluble	Solid	300.0	34308
LCS 880-34308/2-A	Lab Control Sample	Soluble	Solid	300.0	34308
LCSD 880-34308/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34308

General Chemistry

Analysis Batch: 34471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2810-7	B-7 (3-4')	Total/NA	Solid	D2216	
MB 880-34471/1	Method Blank	Total/NA	Solid	D2216	

Lab Chronicle

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

Client Sample ID: B-7 (3-4')
Date Collected: 08/23/22 12:53
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D2216		1			34471	09/14/22 09:09	KS	EET MID

Client Sample ID: B-7 (3-4')
Date Collected: 08/23/22 12:53
Date Received: 08/23/22 15:20

Lab Sample ID: 890-2810-7
Matrix: Solid
Percent Solids: 90.6

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	34308	09/12/22 15:54	KS	EET MID
Soluble	Analysis	300.0		5			34575	09/15/22 20:06	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

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
D2216		Solid	Percent Solids

Method Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
D2216	Percent Moisture	ASTM	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.

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: amoco fed. 11 ctb

Job ID: 890-2810-2
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2810-7	B-7 (3-4')	Solid	08/23/22 12:53	08/23/22 15:20	3 - 4

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Chain of Custody

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

Work Order No: _____

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Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco Fed. 11 CTB	Turn Around	
Project Number:	60689116	☒ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date:	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	19.6
Total Containers:		Corrected Temperature:	19.4

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
NaHSO 4: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool	Cool	Cool	Cool	Sample Comments
								Chloride (EPA 300)	BTEX (8021B)	TPH (8015M)	Percent Moisture	
B-6 (0-1')	Soil	8/23/22	12:28	0-1'	G	1		X			X	HOLD
B-6 (1-2')	Soil	8/23/22	12:29	1-2'	G	1		X			X	HOLD
B-6 (2-3')	Soil	8/23/22	12:30	2-3'	G	1		X	X	X	X	HOLD
B-7 (0-1')	Soil	8/23/22	12:50	0-1'	G	1		X	X	X	X	HOLD
B-7 (1-2')	Soil	8/23/22	12:51	1-2'	G	1		X			X	HOLD
B-7 (2-3')	Soil	8/23/22	12:52	2-3'	G	1		X			X	HOLD
B-7 (3-4')	Soil	8/23/22	12:53	3-4'	G	1		X	X	X	X	HOLD
B-8 (0-1')	Soil	8/23/22	13:35	0-1'	G	1		X			X	HOLD
B-8 (1-2')	Soil	8/23/22	13:36	1-2'	G	1		X			X	HOLD
B-8 (2-3')	Soil	8/23/22	13:37	2-3'	G	1		X	X	X	X	HOLD

890-2810 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_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/23/22 15:20	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM - DALLAS	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email: bradley.wynne@aecom.com		

Work Order Comments

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

Project Name:	Amoco Fed. 11 CTB	Turn Around	
Project Number:	60689116	☒ Routine ☐ Rush	
Project Location:	Loving, NM	Due Date:	
Sampler's Name:	B. Cloud, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool (Chloride (EPA 300))	Cool (BTEX (8021B))	Cool (TPH (8015M))	Cool (Percent Moisture)	Sample Comments
B-9 (0-1')	Soil	8/23/22	14:00	0-1'	G	1		X			X	HOLD
B-9 (1-2')	Soil	8/23/22	14:01	1-2'	G	1		X	X	X	X	HOLD
B-9 (2-3')	Soil	8/23/22	14:02	2-3'	G	1		X			X	HOLD
B-9 (3-4')	Soil	8/23/22	14:03	3-4'	G	1		X	X	X	X	HOLD

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/23/22 15:00	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-2810-2
SDG Number: 60689116

Login Number: 2810
List Number: 1
Creator: Clifton, Cloe

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.	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	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-2810-2
SDG Number: 60689116

Login Number: 2810
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/29/22 09:19 AM

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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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Wallace Gilmore
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Generated 1/18/2023 6:33:44 PM Revision 2

JOB DESCRIPTION

amoco
SDG NUMBER 60689116

JOB NUMBER

890-3573-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

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
1/18/2023 6:33:44 PM
Revision 2

Authorized for release by
John Builes, Project Manager
John.Builes@et.eurofinsus.com
(561)558-4549

Client: AECOM
Project/Site: amoco

Laboratory Job ID: 890-3573-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

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
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.
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: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Job ID: 890-3573-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3573-1

REVISION

The report being provided is a revision of the original report sent on 12/8/2022. The report (revision 1) is being revised due to Revised report to run additional analysis that were on hold per client request.

Report revision history

Receipt
The samples were received on 11/30/2022 8:00 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 1.8°C

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-40946 and analytical batch 880-40965 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-40946/2-A) and (LCSD 880-40946/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: AMOCO DB-5 (0-1) (890-3573-3), AMOCO DB-5 (4-5) (890-3573-6), AMOCO DB-3 (3-4) (890-3573-7), AMOCO DB-3 (4-5) (890-3573-8) and AMOCO DB-6 (0-1) (890-3573-32). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-41544 and analytical batch 880-41555 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.

Narrative

Job Narrative
890-3573-2

Receipt
The samples were received on 11/30/2022 8:00 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 1.8°C

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

Narrative

Job Narrative
890-3573-3

Receipt

Case Narrative

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Job ID: 890-3573-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

The samples were received on 11/30/2022 8:00 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 1.8°C

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

Narrative

Job Narrative
890-3573-4

Receipt
The samples were received on 11/30/2022 8:00 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 1.8°C

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

Narrative

Job Narrative
890-3573-5

Receipt
The samples were received on 11/30/2022 8:00 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 1.8°C

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: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-10 (0-1)

Lab Sample ID: 890-3573-1
Matrix: Solid
Date Collected: 11/29/22 12:25
Date Received: 11/30/22 08:00
Sample Depth: 0 - 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12900		101		mg/Kg			12/13/22 10:57	20

Client Sample ID: AMOCO DB-10 (3-4)

Lab Sample ID: 890-3573-2
Matrix: Solid
Date Collected: 11/29/22 12:35
Date Received: 11/30/22 08:00
Sample Depth: 3 - 3

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1980		25.2		mg/Kg			12/13/22 11:04	5

Client Sample ID: AMOCO DB-5 (0-1)

Lab Sample ID: 890-3573-3
Matrix: Solid
Date Collected: 11/29/22 12:45
Date Received: 11/30/22 08:00
Sample Depth: 0 - 0

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/08/22 15:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/03/22 11:09	12/04/22 00:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/03/22 11:09	12/04/22 00:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/03/22 11:09	12/04/22 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*160*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 00:39*	*1*
o-Terphenyl	*183*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 00:39*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		4.99		mg/Kg			12/04/22 23:22	1

Client Sample ID: AMOCO DB-5 (2-3)

Lab Sample ID: 890-3573-4
Matrix: Solid
Date Collected: 11/29/22 12:50
Date Received: 11/30/22 08:00
Sample Depth: 2 - 2

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	198		5.00		mg/Kg			12/13/22 11:26	1

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-5 (3-4)
Lab Sample ID: 890-3573-5
Date Collected: 11/29/22 12:55
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 3 - 3

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**369**		5.00		mg/Kg			12/13/22 11:33	1

Client Sample ID: AMOCO DB-5 (4-5)
Lab Sample ID: 890-3573-6
Date Collected: 11/29/22 13:00
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 4 - 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/08/22 15:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*12/03/22 11:09*	*12/04/22 01:01*	*1*
o-Terphenyl	*152*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 01:01*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**277**		4.98		mg/Kg			12/04/22 23:30	1

Client Sample ID: AMOCO DB-3 (3-4)
Lab Sample ID: 890-3573-7
Date Collected: 11/29/22 13:12
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 3 - 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/08/22 15:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 01:22*	*1*
o-Terphenyl	*160*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 01:22*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**455**		5.03		mg/Kg			12/04/22 23:55	1

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-3 (4-5)

Lab Sample ID: 890-3573-8
Matrix: Solid
Date Collected: 11/29/22 13:15
Date Received: 11/30/22 08:00
Sample Depth: 4 - 5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/08/22 15:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/04/22 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 01:44*	*1*
o-Terphenyl	*156*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 01:44*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	313		4.98		mg/Kg			12/05/22 00:03	1

Client Sample ID: AMOCO DB-2 (4-5)

Lab Sample ID: 890-3573-14
Matrix: Solid
Date Collected: 11/29/22 13:45
Date Received: 11/30/22 08:00
Sample Depth: 4 - 5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	457		5.00		mg/Kg			12/05/22 00:27	1

Client Sample ID: AMOCO DB-8 (0-1)

Lab Sample ID: 890-3573-24
Matrix: Solid
Date Collected: 11/29/22 14:45
Date Received: 11/30/22 08:00
Sample Depth: 0 - 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	889		5.03		mg/Kg			12/13/22 11:40	1

Client Sample ID: AMOCO DB-8 (2-3)

Lab Sample ID: 890-3573-25
Matrix: Solid
Date Collected: 11/29/22 14:47
Date Received: 11/30/22 08:00
Sample Depth: 2 - 3

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	804		5.02		mg/Kg			12/13/22 11:47	1

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-8 (3-4)

Lab Sample ID: 890-3573-26
Matrix: Solid
Date Collected: 11/29/22 14:50
Date Received: 11/30/22 08:00
Sample Depth: 3 - 4

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**197**		4.98		mg/Kg			12/13/22 11:55	1

Client Sample ID: AMOCO DB-6 (0-1)

Lab Sample ID: 890-3573-32
Matrix: Solid
Date Collected: 11/29/22 15:10
Date Received: 11/30/22 08:00
Sample Depth: 0 - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.4**		49.9		mg/Kg			12/08/22 15:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/03/22 11:09	12/04/22 02:06	1
Diesel Range Organics (Over C10-C28)	**52.4**		49.9		mg/Kg		12/03/22 11:09	12/04/22 02:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/03/22 11:09	12/04/22 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*12/03/22 11:09*	*12/04/22 02:06*	*1*
o-Terphenyl	*148*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/04/22 02:06*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2830**		24.9		mg/Kg			12/05/22 00:35	5

Client Sample ID: AMOCO DB-6 (2-3)

Lab Sample ID: 890-3573-33
Matrix: Solid
Date Collected: 11/29/22 15:12
Date Received: 11/30/22 08:00
Sample Depth: 2 - 3

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**999**		4.96		mg/Kg			12/13/22 12:02	1

Client Sample ID: AMOCO DB-6 (3-4)

Lab Sample ID: 890-3573-34
Matrix: Solid
Date Collected: 11/29/22 15:14
Date Received: 11/30/22 08:00
Sample Depth: 3 - 4

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**917**		5.04		mg/Kg			12/13/22 12:23	1

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-6 (4-5)
Lab Sample ID: 890-3573-35
Matrix: Solid
Date Collected: 11/29/22 15:16
Date Received: 11/30/22 08:00
Sample Depth: 4 - 5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	738		5.04		mg/Kg			12/19/22 22:34	1

Client Sample ID: AMOCO DB-6 (5-6)
Lab Sample ID: 890-3573-36
Matrix: Solid
Date Collected: 11/29/22 16:18
Date Received: 11/30/22 08:00
Sample Depth: 5 - 6

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	717		5.00		mg/Kg			12/30/22 09:31	1

Client Sample ID: AMOCO DB-6 (7-8)
Lab Sample ID: 890-3573-38
Matrix: Solid
Date Collected: 11/29/22 15:22
Date Received: 11/30/22 08:00
Sample Depth: 7 - 8

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205		5.04		mg/Kg			01/13/23 14:06	1

Client Sample ID: AMOCO DB-6 (8-9)
Lab Sample ID: 890-3573-39
Matrix: Solid
Date Collected: 11/29/22 15:24
Date Received: 11/30/22 08:00
Sample Depth: 8 - 4

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.5		4.98		mg/Kg			01/17/23 21:17	1

Client Sample ID: AMOCO DB-1 (4-5)
Lab Sample ID: 890-3573-40
Matrix: Solid
Date Collected: 11/29/22 15:32
Date Received: 11/30/22 08:00
Sample Depth: 4 - 5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2680		24.8		mg/Kg			12/05/22 00:43	5

Client Sample ID: AMOCO DB-1 (5-6)
Lab Sample ID: 890-3573-41
Matrix: Solid
Date Collected: 11/29/22 15:34
Date Received: 11/30/22 08:00
Sample Depth: 5 - 6

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1770		24.9		mg/Kg			12/13/22 12:31	5

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-1 (6-7)
Lab Sample ID: 890-3573-42
Matrix: Solid
Date Collected: 11/29/22 15:36
Date Received: 11/30/22 08:00
Sample Depth: 6 - 7

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		24.9		mg/Kg			12/19/22 22:39	5

Client Sample ID: AMOCO DB-1 (7-8)
Lab Sample ID: 890-3573-43
Matrix: Solid
Date Collected: 11/29/22 15:38
Date Received: 11/30/22 08:00
Sample Depth: 7 - 8

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1310		4.96		mg/Kg			12/30/22 09:36	1

Client Sample ID: AMOCO DB-7 (0-1)
Lab Sample ID: 890-3573-44
Matrix: Solid
Date Collected: 11/29/22 15:45
Date Received: 11/30/22 08:00
Sample Depth: 0 - 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5800		50.3		mg/Kg			12/13/22 12:52	10

Client Sample ID: AMOCO DB-7 (2-3)
Lab Sample ID: 890-3573-45
Matrix: Solid
Date Collected: 11/29/22 15:47
Date Received: 11/30/22 08:00
Sample Depth: 2 - 3

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	680		5.00		mg/Kg			12/13/22 13:00	1

Client Sample ID: AMOCO DB-7 (3-4)
Lab Sample ID: 890-3573-46
Matrix: Solid
Date Collected: 11/29/22 15:50
Date Received: 11/30/22 08:00
Sample Depth: 3 - 4

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1630		24.9		mg/Kg			12/13/22 13:07	5

Client Sample ID: AMOCO DB-7 (4-5)
Lab Sample ID: 890-3573-47
Matrix: Solid
Date Collected: 11/29/22 15:52
Date Received: 11/30/22 08:00
Sample Depth: 4 - 5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1250		4.97		mg/Kg			12/13/22 13:14	1

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-7 (5-6)
Lab Sample ID: 890-3573-48
Date Collected: 11/29/22 15:55
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 5 - 6

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3880		25.2		mg/Kg			12/19/22 22:52	5

Client Sample ID: AMOCO DB-7 (6-7)
Lab Sample ID: 890-3573-49
Date Collected: 11/29/22 15:57
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 6 - 7

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4250		49.6		mg/Kg			12/30/22 09:40	10

Client Sample ID: AMOCO DB-7 (8-9)
Lab Sample ID: 890-3573-50
Date Collected: 11/29/22 16:00
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 7 - 8

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1330		4.97		mg/Kg			01/13/23 14:12	1

Client Sample ID: AMOCO DB-4 (0-1)
Lab Sample ID: 890-3573-51
Date Collected: 11/29/22 16:15
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 0 - 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8310		100		mg/Kg			12/05/22 00:52	20

Client Sample ID: AMOCO DB-4 (3-4)
Lab Sample ID: 890-3573-52
Date Collected: 11/29/22 16:20
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 3 - 4

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	740		25.0		mg/Kg			12/05/22 01:00	5

Client Sample ID: AMOCO DB-4 (4-5)
Lab Sample ID: 890-3573-53
Date Collected: 11/29/22 16:23
Matrix: Solid
Date Received: 11/30/22 08:00
Sample Depth: 4 - 5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280		5.00		mg/Kg			12/19/22 22:57	1

Client Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: DUP 1
Date Collected: 11/29/22 00:00
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-56
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8900		99.6		mg/Kg			12/19/22 23:01	20

Surrogate Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-3573-3	AMOCO DB-5 (0-1)	160 S1+	183 S1+										
890-3573-6	AMOCO DB-5 (4-5)	127	152 S1+										
890-3573-7	AMOCO DB-3 (3-4)	131 S1+	160 S1+										
890-3573-8	AMOCO DB-3 (4-5)	131 S1+	156 S1+										
890-3573-32	AMOCO DB-6 (0-1)	125	148 S1+										
LCS 880-40946/2-A	Lab Control Sample	158 S1+	178 S1+										
LCSD 880-40946/3-A	Lab Control Sample Dup	146 S1+	153 S1+										
MB 880-40946/1-A	Method Blank	193 S1+	218 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

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

Lab Sample ID: MB 880-40946/1-A
Matrix: Solid
Analysis Batch: 40965

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40946

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/03/22 16:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/03/22 16:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/22 11:09	12/03/22 16:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*193*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/03/22 16:48*	*1*
o-Terphenyl	*218*	*S1+*	*70 - 130*	*12/03/22 11:09*	*12/03/22 16:48*	*1*

Lab Sample ID: LCS 880-40946/2-A
Matrix: Solid
Analysis Batch: 40965

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40946

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	787.5		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1294		mg/Kg		129	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*158*	*S1+*	*70 - 130*
o-Terphenyl	*178*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-40946/3-A
Matrix: Solid
Analysis Batch: 40965

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40946

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	765.1		mg/Kg		77	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1101		mg/Kg		110	70 - 130	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*146*	*S1+*	*70 - 130*
o-Terphenyl	*153*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40728/1-A
Matrix: Solid
Analysis Batch: 40962

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/04/22 21:12	1

QC Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-40728/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40962

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.7		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-40728/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40962

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	260.3		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3573-6 MS — **Client Sample ID: AMOCO DB-5 (4-5)**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40962

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	277		249	516.0		mg/Kg		96	90 - 110		

Lab Sample ID: 890-3573-6 MSD — **Client Sample ID: AMOCO DB-5 (4-5)**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40962

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	277		249	515.8		mg/Kg		96	90 - 110	0	20

Lab Sample ID: MB 880-41544/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 41555

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/13/22 09:01	1

Lab Sample ID: LCS 880-41544/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 41555

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.8		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-41544/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 41555

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248.3		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-3573-33 MS — **Client Sample ID: AMOCO DB-6 (2-3)**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 41555

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	999		248	1176	4	mg/Kg		71	90 - 110		

QC Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3573-33 MSD — **Client Sample ID: AMOCO DB-6 (2-3)**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 41555

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	999		248	1208	4	mg/Kg		84	90 - 110	3	20

Lab Sample ID: MB 880-41923/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 42049

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/19/22 21:05	1

Lab Sample ID: LCS 880-41923/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 42049

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.6		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-41923/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 42049

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	237.1		mg/Kg		95	90 - 110	1	20

Lab Sample ID: MB 880-42706/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 42917

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/30/22 07:55	1

Lab Sample ID: LCS 880-42706/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 42917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.0		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-42706/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 42917

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	274.9		mg/Kg		110	90 - 110	3	20

Lab Sample ID: MB 880-43763/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43805

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/12/23 11:43	1

QC Sample Results

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-43763/2-A
Matrix: Solid
Analysis Batch: 43805

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	236.9		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-43763/3-A
Matrix: Solid
Analysis Batch: 43805

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	235.5		mg/Kg		94	90 - 110	1	20

Lab Sample ID: MB 880-44148/1-A
Matrix: Solid
Analysis Batch: 44156

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/17/23 14:05	1

Lab Sample ID: LCS 880-44148/2-A
Matrix: Solid
Analysis Batch: 44156

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.0		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-44148/3-A
Matrix: Solid
Analysis Batch: 44156

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	254.1		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

GC Semi VOA

Prep Batch: 40946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-3	AMOCO DB-5 (0-1)	Total/NA	Solid	8015NM Prep	
890-3573-6	AMOCO DB-5 (4-5)	Total/NA	Solid	8015NM Prep	
890-3573-7	AMOCO DB-3 (3-4)	Total/NA	Solid	8015NM Prep	
890-3573-8	AMOCO DB-3 (4-5)	Total/NA	Solid	8015NM Prep	
890-3573-32	AMOCO DB-6 (0-1)	Total/NA	Solid	8015NM Prep	
MB 880-40946/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40946/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40946/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-3	AMOCO DB-5 (0-1)	Total/NA	Solid	8015B NM	40946
890-3573-6	AMOCO DB-5 (4-5)	Total/NA	Solid	8015B NM	40946
890-3573-7	AMOCO DB-3 (3-4)	Total/NA	Solid	8015B NM	40946
890-3573-8	AMOCO DB-3 (4-5)	Total/NA	Solid	8015B NM	40946
890-3573-32	AMOCO DB-6 (0-1)	Total/NA	Solid	8015B NM	40946
MB 880-40946/1-A	Method Blank	Total/NA	Solid	8015B NM	40946
LCS 880-40946/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40946
LCSD 880-40946/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40946

Analysis Batch: 41384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-3	AMOCO DB-5 (0-1)	Total/NA	Solid	8015 NM	
890-3573-6	AMOCO DB-5 (4-5)	Total/NA	Solid	8015 NM	
890-3573-7	AMOCO DB-3 (3-4)	Total/NA	Solid	8015 NM	
890-3573-8	AMOCO DB-3 (4-5)	Total/NA	Solid	8015 NM	
890-3573-32	AMOCO DB-6 (0-1)	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 40728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-3	AMOCO DB-5 (0-1)	Soluble	Solid	DI Leach	
890-3573-6	AMOCO DB-5 (4-5)	Soluble	Solid	DI Leach	
890-3573-7	AMOCO DB-3 (3-4)	Soluble	Solid	DI Leach	
890-3573-8	AMOCO DB-3 (4-5)	Soluble	Solid	DI Leach	
890-3573-14	AMOCO DB-2 (4-5)	Soluble	Solid	DI Leach	
890-3573-32	AMOCO DB-6 (0-1)	Soluble	Solid	DI Leach	
890-3573-40	AMOCO DB-1 (4-5)	Soluble	Solid	DI Leach	
890-3573-51	AMOCO DB-4 (0-1)	Soluble	Solid	DI Leach	
890-3573-52	AMOCO DB-4 (3-4)	Soluble	Solid	DI Leach	
MB 880-40728/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40728/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40728/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3573-6 MS	AMOCO DB-5 (4-5)	Soluble	Solid	DI Leach	
890-3573-6 MSD	AMOCO DB-5 (4-5)	Soluble	Solid	DI Leach	

Analysis Batch: 40962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-3	AMOCO DB-5 (0-1)	Soluble	Solid	300.0	40728
890-3573-6	AMOCO DB-5 (4-5)	Soluble	Solid	300.0	40728

QC Association Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

HPLC/IC (Continued)

Analysis Batch: 40962 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-7	AMOCO DB-3 (3-4)	Soluble	Solid	300.0	40728
890-3573-8	AMOCO DB-3 (4-5)	Soluble	Solid	300.0	40728
890-3573-14	AMOCO DB-2 (4-5)	Soluble	Solid	300.0	40728
890-3573-32	AMOCO DB-6 (0-1)	Soluble	Solid	300.0	40728
890-3573-40	AMOCO DB-1 (4-5)	Soluble	Solid	300.0	40728
890-3573-51	AMOCO DB-4 (0-1)	Soluble	Solid	300.0	40728
890-3573-52	AMOCO DB-4 (3-4)	Soluble	Solid	300.0	40728
MB 880-40728/1-A	Method Blank	Soluble	Solid	300.0	40728
LCS 880-40728/2-A	Lab Control Sample	Soluble	Solid	300.0	40728
LCSD 880-40728/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40728
890-3573-6 MS	AMOCO DB-5 (4-5)	Soluble	Solid	300.0	40728
890-3573-6 MSD	AMOCO DB-5 (4-5)	Soluble	Solid	300.0	40728

Leach Batch: 41544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-1	AMOCO DB-10 (0-1)	Soluble	Solid	DI Leach	
890-3573-2	AMOCO DB-10 (3-4)	Soluble	Solid	DI Leach	
890-3573-4	AMOCO DB-5 (2-3)	Soluble	Solid	DI Leach	
890-3573-5	AMOCO DB-5 (3-4)	Soluble	Solid	DI Leach	
890-3573-24	AMOCO DB-8 (0-1)	Soluble	Solid	DI Leach	
890-3573-25	AMOCO DB-8 (2-3)	Soluble	Solid	DI Leach	
890-3573-26	AMOCO DB-8 (3-4)	Soluble	Solid	DI Leach	
890-3573-33	AMOCO DB-6 (2-3)	Soluble	Solid	DI Leach	
890-3573-34	AMOCO DB-6 (3-4)	Soluble	Solid	DI Leach	
890-3573-41	AMOCO DB-1 (5-6)	Soluble	Solid	DI Leach	
890-3573-44	AMOCO DB-7 (0-1)	Soluble	Solid	DI Leach	
890-3573-45	AMOCO DB-7 (2-3)	Soluble	Solid	DI Leach	
890-3573-46	AMOCO DB-7 (3-4)	Soluble	Solid	DI Leach	
890-3573-47	AMOCO DB-7 (4-5)	Soluble	Solid	DI Leach	
MB 880-41544/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41544/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41544/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3573-33 MS	AMOCO DB-6 (2-3)	Soluble	Solid	DI Leach	
890-3573-33 MSD	AMOCO DB-6 (2-3)	Soluble	Solid	DI Leach	

Analysis Batch: 41555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-1	AMOCO DB-10 (0-1)	Soluble	Solid	300.0	41544
890-3573-2	AMOCO DB-10 (3-4)	Soluble	Solid	300.0	41544
890-3573-4	AMOCO DB-5 (2-3)	Soluble	Solid	300.0	41544
890-3573-5	AMOCO DB-5 (3-4)	Soluble	Solid	300.0	41544
890-3573-24	AMOCO DB-8 (0-1)	Soluble	Solid	300.0	41544
890-3573-25	AMOCO DB-8 (2-3)	Soluble	Solid	300.0	41544
890-3573-26	AMOCO DB-8 (3-4)	Soluble	Solid	300.0	41544
890-3573-33	AMOCO DB-6 (2-3)	Soluble	Solid	300.0	41544
890-3573-34	AMOCO DB-6 (3-4)	Soluble	Solid	300.0	41544
890-3573-41	AMOCO DB-1 (5-6)	Soluble	Solid	300.0	41544
890-3573-44	AMOCO DB-7 (0-1)	Soluble	Solid	300.0	41544
890-3573-45	AMOCO DB-7 (2-3)	Soluble	Solid	300.0	41544
890-3573-46	AMOCO DB-7 (3-4)	Soluble	Solid	300.0	41544
890-3573-47	AMOCO DB-7 (4-5)	Soluble	Solid	300.0	41544

QC Association Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

HPLC/IC (Continued)

Analysis Batch: 41555 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-41544/1-A	Method Blank	Soluble	Solid	300.0	41544
LCS 880-41544/2-A	Lab Control Sample	Soluble	Solid	300.0	41544
LCSD 880-41544/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41544
890-3573-33 MS	AMOCO DB-6 (2-3)	Soluble	Solid	300.0	41544
890-3573-33 MSD	AMOCO DB-6 (2-3)	Soluble	Solid	300.0	41544

Leach Batch: 41923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-35	AMOCO DB-6 (4-5)	Soluble	Solid	DI Leach	
890-3573-42	AMOCO DB-1 (6-7)	Soluble	Solid	DI Leach	
890-3573-48	AMOCO DB-7 (5-6)	Soluble	Solid	DI Leach	
890-3573-53	AMOCO DB-4 (4-5)	Soluble	Solid	DI Leach	
890-3573-56	DUP 1	Soluble	Solid	DI Leach	
MB 880-41923/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41923/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41923/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 42049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-35	AMOCO DB-6 (4-5)	Soluble	Solid	300.0	41923
890-3573-42	AMOCO DB-1 (6-7)	Soluble	Solid	300.0	41923
890-3573-48	AMOCO DB-7 (5-6)	Soluble	Solid	300.0	41923
890-3573-53	AMOCO DB-4 (4-5)	Soluble	Solid	300.0	41923
890-3573-56	DUP 1	Soluble	Solid	300.0	41923
MB 880-41923/1-A	Method Blank	Soluble	Solid	300.0	41923
LCS 880-41923/2-A	Lab Control Sample	Soluble	Solid	300.0	41923
LCSD 880-41923/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41923

Leach Batch: 42706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-36	AMOCO DB-6 (5-6)	Soluble	Solid	DI Leach	
890-3573-43	AMOCO DB-1 (7-8)	Soluble	Solid	DI Leach	
890-3573-49	AMOCO DB-7 (6-7)	Soluble	Solid	DI Leach	
MB 880-42706/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42706/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42706/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 42917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-36	AMOCO DB-6 (5-6)	Soluble	Solid	300.0	42706
890-3573-43	AMOCO DB-1 (7-8)	Soluble	Solid	300.0	42706
890-3573-49	AMOCO DB-7 (6-7)	Soluble	Solid	300.0	42706
MB 880-42706/1-A	Method Blank	Soluble	Solid	300.0	42706
LCS 880-42706/2-A	Lab Control Sample	Soluble	Solid	300.0	42706
LCSD 880-42706/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42706

Leach Batch: 43763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-38	AMOCO DB-6 (7-8)	Soluble	Solid	DI Leach	
890-3573-50	AMOCO DB-7 (8-9)	Soluble	Solid	DI Leach	
MB 880-43763/1-A	Method Blank	Soluble	Solid	DI Leach	

QC Association Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

HPLC/IC (Continued)

Leach Batch: 43763 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-43763/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43763/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 43805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-38	AMOCO DB-6 (7-8)	Soluble	Solid	300.0	43763
890-3573-50	AMOCO DB-7 (8-9)	Soluble	Solid	300.0	43763
MB 880-43763/1-A	Method Blank	Soluble	Solid	300.0	43763
LCS 880-43763/2-A	Lab Control Sample	Soluble	Solid	300.0	43763
LCSD 880-43763/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43763

Leach Batch: 44148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-39	AMOCO DB-6 (8-9)	Soluble	Solid	DI Leach	
MB 880-44148/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44148/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44148/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 44156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3573-39	AMOCO DB-6 (8-9)	Soluble	Solid	300.0	44148
MB 880-44148/1-A	Method Blank	Soluble	Solid	300.0	44148
LCS 880-44148/2-A	Lab Control Sample	Soluble	Solid	300.0	44148
LCSD 880-44148/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44148

Lab Chronicle

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-10 (0-1)
Date Collected: 11/29/22 12:25
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	41555	12/13/22 10:57	CH	EET MID

Client Sample ID: AMOCO DB-10 (3-4)
Date Collected: 11/29/22 12:35
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	41555	12/13/22 11:04	CH	EET MID

Client Sample ID: AMOCO DB-5 (0-1)
Date Collected: 11/29/22 12:45
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			41384	12/08/22 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	40946	12/03/22 11:09	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40965	12/04/22 00:39	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40962	12/04/22 23:22	CH	EET MID

Client Sample ID: AMOCO DB-5 (2-3)
Date Collected: 11/29/22 12:50
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 11:26	CH	EET MID

Client Sample ID: AMOCO DB-5 (3-4)
Date Collected: 11/29/22 12:55
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 11:33	CH	EET MID

Client Sample ID: AMOCO DB-5 (4-5)
Date Collected: 11/29/22 13:00
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-6
Matrix: Solid

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			41384	12/08/22 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40946	12/03/22 11:09	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40965	12/04/22 01:01	SM	EET MID

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Lab Chronicle

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-5 (4-5)
Date Collected: 11/29/22 13:00
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40962	12/04/22 23:30	CH	EET MID

Client Sample ID: AMOCO DB-3 (3-4)
Date Collected: 11/29/22 13:12
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-7
Matrix: Solid

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			41384	12/08/22 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	40946	12/03/22 11:09	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40965	12/04/22 01:22	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40962	12/04/22 23:55	CH	EET MID

Client Sample ID: AMOCO DB-3 (4-5)
Date Collected: 11/29/22 13:15
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			41384	12/08/22 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	40946	12/03/22 11:09	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40965	12/04/22 01:44	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40962	12/05/22 00:03	CH	EET MID

Client Sample ID: AMOCO DB-2 (4-5)
Date Collected: 11/29/22 13:45
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40962	12/05/22 00:27	CH	EET MID

Client Sample ID: AMOCO DB-8 (0-1)
Date Collected: 11/29/22 14:45
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 11:40	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-8 (2-3)
Date Collected: 11/29/22 14:47
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 11:47	CH	EET MID

Client Sample ID: AMOCO DB-8 (3-4)
Date Collected: 11/29/22 14:50
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-26
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 11:55	CH	EET MID

Client Sample ID: AMOCO DB-6 (0-1)
Date Collected: 11/29/22 15:10
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-32
Matrix: Solid

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			41384	12/08/22 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	40946	12/03/22 11:09	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40965	12/04/22 02:06	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	40962	12/05/22 00:35	CH	EET MID

Client Sample ID: AMOCO DB-6 (2-3)
Date Collected: 11/29/22 15:12
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-33
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 12:02	CH	EET MID

Client Sample ID: AMOCO DB-6 (3-4)
Date Collected: 11/29/22 15:14
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-34
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 12:23	CH	EET MID

Client Sample ID: AMOCO DB-6 (4-5)
Date Collected: 11/29/22 15:16
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-35
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	41923	12/15/22 14:14	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42049	12/19/22 22:34	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-6 (5-6)
Date Collected: 11/29/22 16:18
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-36
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	42706	12/29/22 13:19	KS	EET MID
Soluble	Analysis	300.0		1			42917	12/30/22 09:31	CH	EET MID

Client Sample ID: AMOCO DB-6 (7-8)
Date Collected: 11/29/22 15:22
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-38
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	43763	01/13/23 13:00	KS	EET MID
Soluble	Analysis	300.0		1			43805	01/13/23 14:06	CH	EET MID

Client Sample ID: AMOCO DB-6 (8-9)
Date Collected: 11/29/22 15:24
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-39
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	44148	01/17/23 17:00	KS	EET MID
Soluble	Analysis	300.0		1			44156	01/17/23 21:17	CH	EET MID

Client Sample ID: AMOCO DB-1 (4-5)
Date Collected: 11/29/22 15:32
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-40
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	40962	12/05/22 00:43	CH	EET MID

Client Sample ID: AMOCO DB-1 (5-6)
Date Collected: 11/29/22 15:34
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-41
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	41555	12/13/22 12:31	CH	EET MID

Client Sample ID: AMOCO DB-1 (6-7)
Date Collected: 11/29/22 15:36
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-42
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	41923	12/15/22 14:14	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	42049	12/19/22 22:39	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-1 (7-8)
Date Collected: 11/29/22 15:38
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-43
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	42706	12/29/22 13:19	KS	EET MID
Soluble	Analysis	300.0		1			42917	12/30/22 09:36	CH	EET MID

Client Sample ID: AMOCO DB-7 (0-1)
Date Collected: 11/29/22 15:45
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-44
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	41555	12/13/22 12:52	CH	EET MID

Client Sample ID: AMOCO DB-7 (2-3)
Date Collected: 11/29/22 15:47
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-45
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 13:00	CH	EET MID

Client Sample ID: AMOCO DB-7 (3-4)
Date Collected: 11/29/22 15:50
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-46
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	41555	12/13/22 13:07	CH	EET MID

Client Sample ID: AMOCO DB-7 (4-5)
Date Collected: 11/29/22 15:52
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-47
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	41544	12/09/22 18:48	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	41555	12/13/22 13:14	CH	EET MID

Client Sample ID: AMOCO DB-7 (5-6)
Date Collected: 11/29/22 15:55
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-48
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	41923	12/15/22 14:14	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	42049	12/19/22 22:52	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Client Sample ID: AMOCO DB-7 (6-7)
Date Collected: 11/29/22 15:57
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-49
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	42706	12/29/22 13:19	KS	EET MID
Soluble	Analysis	300.0		10			42917	12/30/22 09:40	CH	EET MID

Client Sample ID: AMOCO DB-7 (8-9)
Date Collected: 11/29/22 16:00
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	43763	01/13/23 13:00	KS	EET MID
Soluble	Analysis	300.0		1			43805	01/13/23 14:12	CH	EET MID

Client Sample ID: AMOCO DB-4 (0-1)
Date Collected: 11/29/22 16:15
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-51
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	40962	12/05/22 00:52	CH	EET MID

Client Sample ID: AMOCO DB-4 (3-4)
Date Collected: 11/29/22 16:20
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-52
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	40728	11/30/22 15:59	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	40962	12/05/22 01:00	CH	EET MID

Client Sample ID: AMOCO DB-4 (4-5)
Date Collected: 11/29/22 16:23
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-53
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	41923	12/15/22 14:14	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42049	12/19/22 22:57	CH	EET MID

Client Sample ID: DUP 1
Date Collected: 11/29/22 00:00
Date Received: 11/30/22 08:00

Lab Sample ID: 890-3573-56
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	41923	12/15/22 14:14	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	42049	12/19/22 23:01	CH	EET MID

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

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

Method Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

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	MCAWW	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.

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: amoco

Job ID: 890-3573-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3573-1	AMOCO DB-10 (0-1)	Solid	11/29/22 12:25	11/30/22 08:00	0 - 1
890-3573-2	AMOCO DB-10 (3-4)	Solid	11/29/22 12:35	11/30/22 08:00	3 - 3
890-3573-3	AMOCO DB-5 (0-1)	Solid	11/29/22 12:45	11/30/22 08:00	0 - 0
890-3573-4	AMOCO DB-5 (2-3)	Solid	11/29/22 12:50	11/30/22 08:00	2 - 2
890-3573-5	AMOCO DB-5 (3-4)	Solid	11/29/22 12:55	11/30/22 08:00	3 - 3
890-3573-6	AMOCO DB-5 (4-5)	Solid	11/29/22 13:00	11/30/22 08:00	4 - 4
890-3573-7	AMOCO DB-3 (3-4)	Solid	11/29/22 13:12	11/30/22 08:00	3 - 3
890-3573-8	AMOCO DB-3 (4-5)	Solid	11/29/22 13:15	11/30/22 08:00	4 - 5
890-3573-14	AMOCO DB-2 (4-5)	Solid	11/29/22 13:45	11/30/22 08:00	4 - 5
890-3573-24	AMOCO DB-8 (0-1)	Solid	11/29/22 14:45	11/30/22 08:00	0 - 1
890-3573-25	AMOCO DB-8 (2-3)	Solid	11/29/22 14:47	11/30/22 08:00	2 - 3
890-3573-26	AMOCO DB-8 (3-4)	Solid	11/29/22 14:50	11/30/22 08:00	3 - 4
890-3573-32	AMOCO DB-6 (0-1)	Solid	11/29/22 15:10	11/30/22 08:00	0 - 1
890-3573-33	AMOCO DB-6 (2-3)	Solid	11/29/22 15:12	11/30/22 08:00	2 - 3
890-3573-34	AMOCO DB-6 (3-4)	Solid	11/29/22 15:14	11/30/22 08:00	3 - 4
890-3573-35	AMOCO DB-6 (4-5)	Solid	11/29/22 15:16	11/30/22 08:00	4 - 5
890-3573-36	AMOCO DB-6 (5-6)	Solid	11/29/22 16:18	11/30/22 08:00	5 - 6
890-3573-38	AMOCO DB-6 (7-8)	Solid	11/29/22 15:22	11/30/22 08:00	7 - 8
890-3573-39	AMOCO DB-6 (8-9)	Solid	11/29/22 15:24	11/30/22 08:00	8 - 4
890-3573-40	AMOCO DB-1 (4-5)	Solid	11/29/22 15:32	11/30/22 08:00	4 - 5
890-3573-41	AMOCO DB-1 (5-6)	Solid	11/29/22 15:34	11/30/22 08:00	5 - 6
890-3573-42	AMOCO DB-1 (6-7)	Solid	11/29/22 15:36	11/30/22 08:00	6 - 7
890-3573-43	AMOCO DB-1 (7-8)	Solid	11/29/22 15:38	11/30/22 08:00	7 - 8
890-3573-44	AMOCO DB-7 (0-1)	Solid	11/29/22 15:45	11/30/22 08:00	0 - 1
890-3573-45	AMOCO DB-7 (2-3)	Solid	11/29/22 15:47	11/30/22 08:00	2 - 3
890-3573-46	AMOCO DB-7 (3-4)	Solid	11/29/22 15:50	11/30/22 08:00	3 - 4
890-3573-47	AMOCO DB-7 (4-5)	Solid	11/29/22 15:52	11/30/22 08:00	4 - 5
890-3573-48	AMOCO DB-7 (5-6)	Solid	11/29/22 15:55	11/30/22 08:00	5 - 6
890-3573-49	AMOCO DB-7 (6-7)	Solid	11/29/22 15:57	11/30/22 08:00	6 - 7
890-3573-50	AMOCO DB-7 (8-9)	Solid	11/29/22 16:00	11/30/22 08:00	7 - 8
890-3573-51	AMOCO DB-4 (0-1)	Solid	11/29/22 16:15	11/30/22 08:00	0 - 1
890-3573-52	AMOCO DB-4 (3-4)	Solid	11/29/22 16:20	11/30/22 08:00	3 - 4
890-3573-53	AMOCO DB-4 (4-5)	Solid	11/29/22 16:23	11/30/22 08:00	4 - 5
890-3573-56	DUP 1	Solid	11/29/22 00:00	11/30/22 08:00	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-3573-1
SDG Number: 60689116

Login Number: 3573
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-3573-1
SDG Number: 60689116

Login Number: 3573
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/30/22 04:51 PM

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

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-3573-1
SDG Number: 60689116

Login Number: 3573
List Number: 3
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 12/13/22 04:37 PM

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

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-3573-1
SDG Number: 60689116

Login Number: 3573
List Number: 4
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 12/20/22 11:02 AM

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Bradley Wynne
AECOM
13355 Noel Road
Suite 400
Dallas, Texas 75240

Generated 2/14/2023 9:13:13 AM

JOB DESCRIPTION

Amoco CTB
SDG NUMBER 60689116

JOB NUMBER

890-4081-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

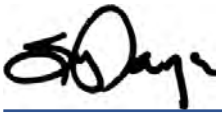
my EOL

Eurofins Carlsbad

Job Notes

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
2/14/2023 9:13:13 AM

Authorized for release by
Sylvia Garza, Project Manager
Sylvia.Garza@et.eurofinsus.com
(832)544-2004

Client: AECOM
Project/Site: Amoco CTB

Laboratory Job ID: 890-4081-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Job ID: 890-4081-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4081-1

Receipt
The samples were received on 2/9/2023 3:40 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 4.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: DB-12 (0-1') (890-4081-1), DB-12 (2-3') (890-4081-2), DB-11 (6-8') (890-4081-3), DB-11 (8-10') (890-4081-4), DB-11 (10-12') (890-4081-5), DB-15 (0-1') (890-4081-6), DB-15 (2-3') (890-4081-7), DB-13 (0-1') (890-4081-8), DB-13 (2-3') (890-4081-9), DB-16 (0-1') (890-4081-10), DB-16 (2-3') (890-4081-11), DB-14 (0-1') (890-4081-12), DB-14 (2-3') (890-4081-13), DB-17 (0-1') (890-4081-14), DB-17 (2-3') (890-4081-15) and DUP-01 (890-4081-16).

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-46142 and 880-46142 and analytical batch 880-46175 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: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Client Sample ID: DB-12 (0-1')
Lab Sample ID: 890-4081-1
Date Collected: 02/08/23 15:27
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4470	F1	50.0		mg/Kg			02/13/23 23:07	10

Client Sample ID: DB-12 (2-3')
Lab Sample ID: 890-4081-2
Date Collected: 02/08/23 15:28
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	947		4.98		mg/Kg			02/13/23 23:21	1

Client Sample ID: DB-11 (6-8')
Lab Sample ID: 890-4081-3
Date Collected: 02/08/23 16:49
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 6 - 8

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	203		4.95		mg/Kg			02/13/23 23:26	1

Client Sample ID: DB-11 (8-10')
Lab Sample ID: 890-4081-4
Date Collected: 02/08/23 16:50
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 8 - 10

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	267		4.96		mg/Kg			02/13/23 23:31	1

Client Sample ID: DB-11 (10-12')
Lab Sample ID: 890-4081-5
Date Collected: 02/08/23 16:51
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 10 - 12

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	454		4.97		mg/Kg			02/13/23 23:35	1

Client Sample ID: DB-15 (0-1')
Lab Sample ID: 890-4081-6
Date Collected: 02/09/23 09:15
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4550		50.0		mg/Kg			02/13/23 23:49	10

Client Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Client Sample ID: DB-15 (2-3')
Lab Sample ID: 890-4081-7

Date Collected: 02/09/23 09:16
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	436		4.98		mg/Kg			02/13/23 23:54	1

Client Sample ID: DB-13 (0-1')
Lab Sample ID: 890-4081-8

Date Collected: 02/09/23 10:17
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3160		25.0		mg/Kg			02/13/23 23:59	5

Client Sample ID: DB-13 (2-3')
Lab Sample ID: 890-4081-9

Date Collected: 02/09/23 10:18
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	392		5.01		mg/Kg			02/14/23 00:03	1

Client Sample ID: DB-16 (0-1')
Lab Sample ID: 890-4081-10

Date Collected: 02/09/23 10:42
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2450		24.9		mg/Kg			02/14/23 00:08	5

Client Sample ID: DB-16 (2-3')
Lab Sample ID: 890-4081-11

Date Collected: 02/09/23 10:43
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	583	F1	4.95		mg/Kg			02/14/23 00:13	1

Client Sample ID: DB-14 (0-1')
Lab Sample ID: 890-4081-12

Date Collected: 02/09/23 11:35
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	570		4.99		mg/Kg			02/14/23 00:26	1

Client Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Client Sample ID: DB-14 (2-3')
Lab Sample ID: 890-4081-13

Date Collected: 02/09/23 11:36
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2330		24.8		mg/Kg			02/14/23 00:31	5

Client Sample ID: DB-17 (0-1')
Lab Sample ID: 890-4081-14

Date Collected: 02/09/23 11:58
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		4.97		mg/Kg			02/14/23 00:45	1

Client Sample ID: DB-17 (2-3')
Lab Sample ID: 890-4081-15

Date Collected: 02/09/23 11:59
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	839		4.96		mg/Kg			02/14/23 00:50	1

Client Sample ID: DUP-01
Lab Sample ID: 890-4081-16

Date Collected: 02/09/23 00:00
Matrix: Solid
Date Received: 02/09/23 15:40

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2350		25.0		mg/Kg			02/14/23 00:54	5

QC Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46142/1-A
Matrix: Solid
Analysis Batch: 46175

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/13/23 22:53	1

Lab Sample ID: LCS 880-46142/2-A
Matrix: Solid
Analysis Batch: 46175

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	242.1		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-46142/3-A
Matrix: Solid
Analysis Batch: 46175

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	246.6		mg/Kg		99	90 - 110	2	20

Lab Sample ID: 890-4081-1 MS
Matrix: Solid
Analysis Batch: 46175

Client Sample ID: DB-12 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	4470	F1	2500	6569	F1	mg/Kg		84	90 - 110		

Lab Sample ID: 890-4081-1 MSD
Matrix: Solid
Analysis Batch: 46175

Client Sample ID: DB-12 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4470	F1	2500	6560	F1	mg/Kg		83	90 - 110	0	20

Lab Sample ID: 890-4081-11 MS
Matrix: Solid
Analysis Batch: 46175

Client Sample ID: DB-16 (2-3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	583	F1	248	805.2		mg/Kg		90	90 - 110		

Lab Sample ID: 890-4081-11 MSD
Matrix: Solid
Analysis Batch: 46175

Client Sample ID: DB-16 (2-3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	583	F1	248	801.0	F1	mg/Kg		88	90 - 110	1	20

QC Association Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

HPLC/IC

Leach Batch: 46142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4081-1	DB-12 (0-1')	Soluble	Solid	DI Leach	
890-4081-2	DB-12 (2-3')	Soluble	Solid	DI Leach	
890-4081-3	DB-11 (6-8')	Soluble	Solid	DI Leach	
890-4081-4	DB-11 (8-10')	Soluble	Solid	DI Leach	
890-4081-5	DB-11 (10-12')	Soluble	Solid	DI Leach	
890-4081-6	DB-15 (0-1')	Soluble	Solid	DI Leach	
890-4081-7	DB-15 (2-3')	Soluble	Solid	DI Leach	
890-4081-8	DB-13 (0-1')	Soluble	Solid	DI Leach	
890-4081-9	DB-13 (2-3')	Soluble	Solid	DI Leach	
890-4081-10	DB-16 (0-1')	Soluble	Solid	DI Leach	
890-4081-11	DB-16 (2-3')	Soluble	Solid	DI Leach	
890-4081-12	DB-14 (0-1')	Soluble	Solid	DI Leach	
890-4081-13	DB-14 (2-3')	Soluble	Solid	DI Leach	
890-4081-14	DB-17 (0-1')	Soluble	Solid	DI Leach	
890-4081-15	DB-17 (2-3')	Soluble	Solid	DI Leach	
890-4081-16	DUP-01	Soluble	Solid	DI Leach	
MB 880-46142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4081-1 MS	DB-12 (0-1')	Soluble	Solid	DI Leach	
890-4081-1 MSD	DB-12 (0-1')	Soluble	Solid	DI Leach	
890-4081-11 MS	DB-16 (2-3')	Soluble	Solid	DI Leach	
890-4081-11 MSD	DB-16 (2-3')	Soluble	Solid	DI Leach	

Analysis Batch: 46175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4081-1	DB-12 (0-1')	Soluble	Solid	300.0	46142
890-4081-2	DB-12 (2-3')	Soluble	Solid	300.0	46142
890-4081-3	DB-11 (6-8')	Soluble	Solid	300.0	46142
890-4081-4	DB-11 (8-10')	Soluble	Solid	300.0	46142
890-4081-5	DB-11 (10-12')	Soluble	Solid	300.0	46142
890-4081-6	DB-15 (0-1')	Soluble	Solid	300.0	46142
890-4081-7	DB-15 (2-3')	Soluble	Solid	300.0	46142
890-4081-8	DB-13 (0-1')	Soluble	Solid	300.0	46142
890-4081-9	DB-13 (2-3')	Soluble	Solid	300.0	46142
890-4081-10	DB-16 (0-1')	Soluble	Solid	300.0	46142
890-4081-11	DB-16 (2-3')	Soluble	Solid	300.0	46142
890-4081-12	DB-14 (0-1')	Soluble	Solid	300.0	46142
890-4081-13	DB-14 (2-3')	Soluble	Solid	300.0	46142
890-4081-14	DB-17 (0-1')	Soluble	Solid	300.0	46142
890-4081-15	DB-17 (2-3')	Soluble	Solid	300.0	46142
890-4081-16	DUP-01	Soluble	Solid	300.0	46142
MB 880-46142/1-A	Method Blank	Soluble	Solid	300.0	46142
LCS 880-46142/2-A	Lab Control Sample	Soluble	Solid	300.0	46142
LCSD 880-46142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46142
890-4081-1 MS	DB-12 (0-1')	Soluble	Solid	300.0	46142
890-4081-1 MSD	DB-12 (0-1')	Soluble	Solid	300.0	46142
890-4081-11 MS	DB-16 (2-3')	Soluble	Solid	300.0	46142
890-4081-11 MSD	DB-16 (2-3')	Soluble	Solid	300.0	46142

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Client Sample ID: DB-12 (0-1')
Lab Sample ID: 890-4081-1
Date Collected: 02/08/23 15:27
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		10			46175	02/13/23 23:07	CH	EET MID

Client Sample ID: DB-12 (2-3')
Lab Sample ID: 890-4081-2
Date Collected: 02/08/23 15:28
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/13/23 23:21	CH	EET MID

Client Sample ID: DB-11 (6-8')
Lab Sample ID: 890-4081-3
Date Collected: 02/08/23 16:49
Matrix: Solid
Date Received: 02/09/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/13/23 23:26	CH	EET MID

Client Sample ID: DB-11 (8-10')
Lab Sample ID: 890-4081-4
Date Collected: 02/08/23 16:50
Matrix: Solid
Date Received: 02/09/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/13/23 23:31	CH	EET MID

Client Sample ID: DB-11 (10-12')
Lab Sample ID: 890-4081-5
Date Collected: 02/08/23 16:51
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/13/23 23:35	CH	EET MID

Client Sample ID: DB-15 (0-1')
Lab Sample ID: 890-4081-6
Date Collected: 02/09/23 09:15
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		10			46175	02/13/23 23:49	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Client Sample ID: DB-15 (2-3')
Lab Sample ID: 890-4081-7
Date Collected: 02/09/23 09:16
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/13/23 23:54	CH	EET MID

Client Sample ID: DB-13 (0-1')
Lab Sample ID: 890-4081-8
Date Collected: 02/09/23 10:17
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		5			46175	02/13/23 23:59	CH	EET MID

Client Sample ID: DB-13 (2-3')
Lab Sample ID: 890-4081-9
Date Collected: 02/09/23 10:18
Matrix: Solid
Date Received: 02/09/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/14/23 00:03	CH	EET MID

Client Sample ID: DB-16 (0-1')
Lab Sample ID: 890-4081-10
Date Collected: 02/09/23 10:42
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		5			46175	02/14/23 00:08	CH	EET MID

Client Sample ID: DB-16 (2-3')
Lab Sample ID: 890-4081-11
Date Collected: 02/09/23 10:43
Matrix: Solid
Date Received: 02/09/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/14/23 00:13	CH	EET MID

Client Sample ID: DB-14 (0-1')
Lab Sample ID: 890-4081-12
Date Collected: 02/09/23 11:35
Matrix: Solid
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/14/23 00:26	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Client Sample ID: DB-14 (2-3')

Lab Sample ID: 890-4081-13
Matrix: Solid
Date Collected: 02/09/23 11:36
Date Received: 02/09/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		5			46175	02/14/23 00:31	CH	EET MID

Client Sample ID: DB-17 (0-1')

Lab Sample ID: 890-4081-14
Matrix: Solid
Date Collected: 02/09/23 11:58
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/14/23 00:45	CH	EET MID

Client Sample ID: DB-17 (2-3')

Lab Sample ID: 890-4081-15
Matrix: Solid
Date Collected: 02/09/23 11:59
Date Received: 02/09/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		1			46175	02/14/23 00:50	CH	EET MID

Client Sample ID: DUP-01

Lab Sample ID: 890-4081-16
Matrix: Solid
Date Collected: 02/09/23 00:00
Date Received: 02/09/23 15:40

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	46142	02/13/23 12:35	KS	EET MID
Soluble	Analysis	300.0		5			46175	02/14/23 00:54	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

Method Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4081-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4081-1	DB-12 (0-1')	Solid	02/08/23 15:27	02/09/23 15:40	0 - 1
890-4081-2	DB-12 (2-3')	Solid	02/08/23 15:28	02/09/23 15:40	2 - 3
890-4081-3	DB-11 (6-8')	Solid	02/08/23 16:49	02/09/23 15:40	6 - 8
890-4081-4	DB-11 (8-10')	Solid	02/08/23 16:50	02/09/23 15:40	8 - 10
890-4081-5	DB-11 (10-12')	Solid	02/08/23 16:51	02/09/23 15:40	10 - 12
890-4081-6	DB-15 (0-1')	Solid	02/09/23 09:15	02/09/23 15:40	0 - 1
890-4081-7	DB-15 (2-3')	Solid	02/09/23 09:16	02/09/23 15:40	2 - 3
890-4081-8	DB-13 (0-1')	Solid	02/09/23 10:17	02/09/23 15:40	0 - 1
890-4081-9	DB-13 (2-3')	Solid	02/09/23 10:18	02/09/23 15:40	2 - 3
890-4081-10	DB-16 (0-1')	Solid	02/09/23 10:42	02/09/23 15:40	0 - 1
890-4081-11	DB-16 (2-3')	Solid	02/09/23 10:43	02/09/23 15:40	2 - 3
890-4081-12	DB-14 (0-1')	Solid	02/09/23 11:35	02/09/23 15:40	0 - 1
890-4081-13	DB-14 (2-3')	Solid	02/09/23 11:36	02/09/23 15:40	2 - 3
890-4081-14	DB-17 (0-1')	Solid	02/09/23 11:58	02/09/23 15:40	0 - 1
890-4081-15	DB-17 (2-3')	Solid	02/09/23 11:59	02/09/23 15:40	2 - 3
890-4081-16	DUP-01	Solid	02/09/23 00:00	02/09/23 15:40	

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	
Project Number:	60689116	☒ Routine ☐ Rush	
Project Location:	Loving, Eddy County, NM	Due Date:	
Sampler's Name:	B. Eland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.2
Total Containers:		Corrected Temperature:	4.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code: Cool	Chloride (EPA 300)	Parameters
DB-12 (0-1')	Soil	2/8/23	15:27	0-1'	G	1	X	X	
DB-12 (2-3')	Soil	2/8/23	15:28	2-3'	G	1	X	X	
DB-11 (6-8')	Soil	2/8/23	16:49	6-8'	G	1	X	X	
DB-11 (8-10')	Soil	2/8/23	16:50	8-10'	G	1	X	X	
DB-11 (10-12')	Soil	2/8/23	16:51	10-12'	G	1	X	X	
DB-15 (0-1')	Soil	2/9/23	09:15	0-1'	G	1	X	X	
DB-15 (2-3')	Soil	2/9/23	09:16	2-3'	G	1	X	X	
DB-13 (0-1')	Soil	2/9/23	10:17	0-1'	G	1	X	X	
DB-13 (2-3')	Soil	2/9/23	10:18	2-3'	G	1	X	X	
DB-16 (0-1')	Soil	2/9/23	10:42	0-1'	G	1	X	X	

890-4081 Chain of Custody

Preservative Codes

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

Sample Comments

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	1542		2		
3	2.9.23	2/9/23 1540	4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD. STE 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829	Email:	bradley.wynne@aecom.com

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	☐Routine ☐Rush
Project Number:	60689116		
Project Location:	Loving, Eddy County, NM	Due Date:	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	ANALYSIS REQUEST: Cool	Parameters: Chloride (EPA 300)	Sample Comments
DB-16 (2-3')	Soil	2/9/23	10:43	2-3'	G	1		X	X	
DB-14 (0-1')	Soil	2/9/23	11:35	0-1'	G	1		X	X	
DB-14 (2-3')	Soil	2/9/23	11:36	2-3'	G	1		X	X	
DB-17 (0-1')	Soil	2/9/23	11:58	0-1'	G	1		X	X	
DB-17 (2-3')	Soil	2/9/23	11:59	2-3'	G	1		X	X	
DUP-01	Soil	2/9/23	—	—	G	1		X	X	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cloe Cruz	2/9/23 1540	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4081-1
SDG Number: 60689116

Login Number: 4081
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4081-1
SDG Number: 60689116

Login Number: 4081
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/13/23 08:35 AM

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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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Bradley Wynne
AECOM
13355 Noel Road
Suite 400
Dallas, Texas 75240

Generated 3/1/2023 5:21:44 PM Revision 3

JOB DESCRIPTION

Amoco CTB
SDG NUMBER 60689116

JOB NUMBER

890-4082-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

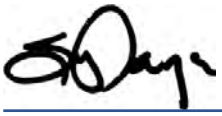
my EOL

Eurofins Carlsbad

Job Notes

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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3/1/2023 5:21:44 PM
Revision 3

Authorized for release by
Sylvia Garza, Project Manager
Sylvia.Garza@et.eurofinsus.com
(832)544-2004

Client: AECOM
Project/Site: Amoco CTB

Laboratory Job ID: 890-4082-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Job ID: 890-4082-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4082-1

Released DB-12 (7-8), DB-12 (8-9), DB-12 (9-10') for Chloride based on inital results.

Based on results, released **DB-12 (6-7) for chloride** on rush TAT.

Released **DB-12 (5-6)** from hold for Chloride analysis per client request.

Analyze the following additional samples for **Chloride on ASAP TAT**:

DB-12 (4-5)
DB-14 (4-5)
DB-18 (0-1)

Receipt
The samples were received on 2/9/2023 3:40 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 4.0°C

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-46340 and analytical batch 880-46411 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: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Client Sample ID: DB-12 (4-5')
Lab Sample ID: 890-4082-1
Date Collected: 02/08/23 15:29
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 4 - 5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	733		4.95		mg/Kg			02/15/23 12:39	1

Client Sample ID: DB-12 (5-6')
Lab Sample ID: 890-4082-2
Date Collected: 02/08/23 15:30
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 5 - 6

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	783		4.98		mg/Kg			02/16/23 19:58	1

Client Sample ID: DB-12 (6-7')
Lab Sample ID: 890-4082-3
Date Collected: 02/08/23 15:31
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 6 - 7

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1070		5.01		mg/Kg			02/20/23 19:32	1

Client Sample ID: DB-12 (7-8')
Lab Sample ID: 890-4082-4
Date Collected: 02/08/23 15:32
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 7 - 8

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	733		4.97		mg/Kg			02/22/23 22:31	1

Client Sample ID: DB-12 (8-9')
Lab Sample ID: 890-4082-5
Date Collected: 02/08/23 15:33
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 8 - 9

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	978		24.9		mg/Kg			02/24/23 17:15	5

Client Sample ID: DB-12 (9-10')
Lab Sample ID: 890-4082-6
Date Collected: 02/08/23 15:34
Matrix: Solid
Date Received: 02/09/23 15:40
Sample Depth: 9 - 10

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1020		25.3		mg/Kg			03/01/23 02:11	5

Client Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Client Sample ID: DB-14 (4-5')

Lab Sample ID: 890-4082-24
Matrix: Solid
Date Collected: 02/09/23 11:37
Date Received: 02/09/23 15:40
Sample Depth: 4 - 5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	393		5.01		mg/Kg			02/15/23 12:43	1

Client Sample ID: DB-18 (0-1')

Lab Sample ID: 890-4082-31
Matrix: Solid
Date Collected: 02/09/23 12:24
Date Received: 02/09/23 15:40
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	567	F1	4.97		mg/Kg			02/15/23 12:48	1

QC Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46340/1-A
Matrix: Solid
Analysis Batch: 46411

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/23 11:29	1

Lab Sample ID: LCS 880-46340/2-A
Matrix: Solid
Analysis Batch: 46411

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.7		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-46340/3-A
Matrix: Solid
Analysis Batch: 46411

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	241.0		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-4082-31 MS
Matrix: Solid
Analysis Batch: 46411

Client Sample ID: DB-18 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	567	F1	249	780.6	F1	mg/Kg		86	90 - 110		

Lab Sample ID: 890-4082-31 MSD
Matrix: Solid
Analysis Batch: 46411

Client Sample ID: DB-18 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	567	F1	249	780.0	F1	mg/Kg		86	90 - 110	0	20

Lab Sample ID: MB 880-46519/1-A
Matrix: Solid
Analysis Batch: 46554

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/16/23 17:33	1

Lab Sample ID: LCS 880-46519/2-A
Matrix: Solid
Analysis Batch: 46554

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	232.5		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-46519/3-A
Matrix: Solid
Analysis Batch: 46554

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	237.5		mg/Kg		95	90 - 110	2	20

QC Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46688/1-A
Matrix: Solid
Analysis Batch: 46720

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/20/23 16:33	1

Lab Sample ID: LCS 880-46688/2-A
Matrix: Solid
Analysis Batch: 46720

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.3		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-46688/3-A
Matrix: Solid
Analysis Batch: 46720

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	235.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: MB 880-46796/1-A
Matrix: Solid
Analysis Batch: 46979

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/22/23 20:21	1

Lab Sample ID: LCS 880-46796/2-A
Matrix: Solid
Analysis Batch: 46979

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.3		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-46796/3-A
Matrix: Solid
Analysis Batch: 46979

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	246.1		mg/Kg		98	90 - 110	0	20

Lab Sample ID: MB 880-47164/1-A
Matrix: Solid
Analysis Batch: 47217

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/24/23 15:45	1

Lab Sample ID: LCS 880-47164/2-A
Matrix: Solid
Analysis Batch: 47217

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.0		mg/Kg		94	90 - 110		

QC Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-47164/3-A
Matrix: Solid
Analysis Batch: 47217

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	234.8		mg/Kg		94	90 - 110	0	20

Lab Sample ID: MB 880-47404/1-A
Matrix: Solid
Analysis Batch: 47476

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/01/23 01:34	1

Lab Sample ID: LCS 880-47404/2-A
Matrix: Solid
Analysis Batch: 47476

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	249.8		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-47404/3-A
Matrix: Solid
Analysis Batch: 47476

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	246.1		mg/Kg		98	90 - 110	2	20

QC Association Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

HPLC/IC

Leach Batch: 46340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-1	DB-12 (4-5')	Soluble	Solid	DI Leach	
890-4082-24	DB-14 (4-5')	Soluble	Solid	DI Leach	
890-4082-31	DB-18 (0-1')	Soluble	Solid	DI Leach	
MB 880-46340/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46340/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46340/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4082-31 MS	DB-18 (0-1')	Soluble	Solid	DI Leach	
890-4082-31 MSD	DB-18 (0-1')	Soluble	Solid	DI Leach	

Analysis Batch: 46411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-1	DB-12 (4-5')	Soluble	Solid	300.0	46340
890-4082-24	DB-14 (4-5')	Soluble	Solid	300.0	46340
890-4082-31	DB-18 (0-1')	Soluble	Solid	300.0	46340
MB 880-46340/1-A	Method Blank	Soluble	Solid	300.0	46340
LCS 880-46340/2-A	Lab Control Sample	Soluble	Solid	300.0	46340
LCSD 880-46340/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46340
890-4082-31 MS	DB-18 (0-1')	Soluble	Solid	300.0	46340
890-4082-31 MSD	DB-18 (0-1')	Soluble	Solid	300.0	46340

Leach Batch: 46519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-2	DB-12 (5-6')	Soluble	Solid	DI Leach	
MB 880-46519/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46519/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46519/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 46554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-2	DB-12 (5-6')	Soluble	Solid	300.0	46519
MB 880-46519/1-A	Method Blank	Soluble	Solid	300.0	46519
LCS 880-46519/2-A	Lab Control Sample	Soluble	Solid	300.0	46519
LCSD 880-46519/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46519

Leach Batch: 46688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-3	DB-12 (6-7')	Soluble	Solid	DI Leach	
MB 880-46688/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46688/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46688/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 46720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-3	DB-12 (6-7')	Soluble	Solid	300.0	46688
MB 880-46688/1-A	Method Blank	Soluble	Solid	300.0	46688
LCS 880-46688/2-A	Lab Control Sample	Soluble	Solid	300.0	46688
LCSD 880-46688/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46688

Leach Batch: 46796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-4	DB-12 (7-8')	Soluble	Solid	DI Leach	

QC Association Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

HPLC/IC (Continued)

Leach Batch: 46796 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46796/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46796/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46796/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 46979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-4	DB-12 (7-8')	Soluble	Solid	300.0	46796
MB 880-46796/1-A	Method Blank	Soluble	Solid	300.0	46796
LCS 880-46796/2-A	Lab Control Sample	Soluble	Solid	300.0	46796
LCSD 880-46796/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46796

Leach Batch: 47164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-5	DB-12 (8-9')	Soluble	Solid	DI Leach	
MB 880-47164/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47164/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47164/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 47217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-5	DB-12 (8-9')	Soluble	Solid	300.0	47164
MB 880-47164/1-A	Method Blank	Soluble	Solid	300.0	47164
LCS 880-47164/2-A	Lab Control Sample	Soluble	Solid	300.0	47164
LCSD 880-47164/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47164

Leach Batch: 47404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-6	DB-12 (9-10')	Soluble	Solid	DI Leach	
MB 880-47404/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47404/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47404/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 47476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4082-6	DB-12 (9-10')	Soluble	Solid	300.0	47404
MB 880-47404/1-A	Method Blank	Soluble	Solid	300.0	47404
LCS 880-47404/2-A	Lab Control Sample	Soluble	Solid	300.0	47404
LCSD 880-47404/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47404

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Client Sample ID: DB-12 (4-5')
Date Collected: 02/08/23 15:29
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	46340	02/14/23 16:29	KS	EET MID
Soluble	Analysis	300.0		1			46411	02/15/23 12:39	CH	EET MID

Client Sample ID: DB-12 (5-6')
Date Collected: 02/08/23 15:30
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	46519	02/16/23 15:00	KS	EET MID
Soluble	Analysis	300.0		1			46554	02/16/23 19:58	CH	EET MID

Client Sample ID: DB-12 (6-7')
Date Collected: 02/08/23 15:31
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	46688	02/20/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1			46720	02/20/23 19:32	CH	EET MID

Client Sample ID: DB-12 (7-8')
Date Collected: 02/08/23 15:32
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	46796	02/22/23 16:15	KS	EET MID
Soluble	Analysis	300.0		1			46979	02/22/23 22:31	CH	EET MID

Client Sample ID: DB-12 (8-9')
Date Collected: 02/08/23 15:33
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	47164	02/24/23 11:24	KS	EET MID
Soluble	Analysis	300.0		5			47217	02/24/23 17:15	CH	EET MID

Client Sample ID: DB-12 (9-10')
Date Collected: 02/08/23 15:34
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	47404	02/28/23 15:00	KS	EET MID
Soluble	Analysis	300.0		5			47476	03/01/23 02:11	CH	EET MID

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Client Sample ID: DB-14 (4-5')
Date Collected: 02/09/23 11:37
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	46340	02/14/23 16:29	KS	EET MID
Soluble	Analysis	300.0		1			46411	02/15/23 12:43	CH	EET MID

Client Sample ID: DB-18 (0-1')
Date Collected: 02/09/23 12:24
Date Received: 02/09/23 15:40

Lab Sample ID: 890-4082-31
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	46340	02/14/23 16:29	KS	EET MID
Soluble	Analysis	300.0		1			46411	02/15/23 12:48	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

Method Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4082-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4082-1	DB-12 (4-5')	Solid	02/08/23 15:29	02/09/23 15:40	4 - 5
890-4082-2	DB-12 (5-6')	Solid	02/08/23 15:30	02/09/23 15:40	5 - 6
890-4082-3	DB-12 (6-7')	Solid	02/08/23 15:31	02/09/23 15:40	6 - 7
890-4082-4	DB-12 (7-8')	Solid	02/08/23 15:32	02/09/23 15:40	7 - 8
890-4082-5	DB-12 (8-9')	Solid	02/08/23 15:33	02/09/23 15:40	8 - 9
890-4082-6	DB-12 (9-10')	Solid	02/08/23 15:34	02/09/23 15:40	9 - 10
890-4082-24	DB-14 (4-5')	Solid	02/09/23 11:37	02/09/23 15:40	4 - 5
890-4082-31	DB-18 (0-1')	Solid	02/09/23 12:24	02/09/23 15:40	0 - 1

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 4

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD., STE 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	
Project Number:	60689116	☒ Routine ☐ Rush	
Project Location:	Loving, Eddy County, NM	Due Date:	
Sampler's Name:	B. Cland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TWN007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.2	
Total Containers:		Corrected Temperature:	4.0	

ANALYSIS REQUEST

Pres. Code: Cool

Parameters: Chloride (EPA 300)

890-4082 Chain of Custody

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Chloride	Sample Comments
DB-12 (4-5')	Soil	2/8/23	15:29	4-5'	G	1	X	HOLD
DB-12 (5-6')	Soil	2/8/23	15:30	5-6'	G	1	X	HOLD
DB-12 (6-7')	Soil	2/8/23	15:31	6-7'	G	1	X	HOLD
DB-12 (7-8')	Soil	2/8/23	15:32	7-8'	G	1	X	HOLD
DB-12 (8-9')	Soil	2/8/23	15:33	8-9'	G	1	X	HOLD
DB-12 (9-10')	Soil	2/8/23	15:34	9-10'	G	1	X	HOLD
DB-11 (12-14')	Soil	2/8/23	16:52	12-14'	G	1	X	HOLD
DB-11 (14-16')	Soil	2/8/23	16:53	14-16'	G	1	X	HOLD
DB-11 (16-18')	Soil	2/8/23	16:54	16-18'	G	1	X	HOLD
DB-11 (18-20')	Soil	2/8/23	16:55	18-20'	G	1	X	HOLD

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	2 2.9.23 1542	2/9/23 1540	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 2 of 4

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829	Email:	bradley.wynne@aecom.com

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	☐ Routine ☐ Rush
Project Number:	60689116		
Project Location:	Loving, Eddy County, NM	Due Date:	
Sampler's Name:	B. Lloyd, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool	Parameters: Chloride (EPA 300)	Sample Comments
DB-11 (20-22')	Soil	2/8/23	16:56	20-22'	G	1		X	X	HOLD
DB-11 (22-24')	Soil	2/8/23	16:57	22-24'	G	1		X	X	HOLD
DB-11 (24-26')	Soil	2/8/23	16:58	24-26'	G	1		X	X	HOLD
DB-11 (26-28')	Soil	2/8/23	16:59	26-28'	G	1		X	X	HOLD
DB-11 (28-29')	Soil	2/8/23	17:00	28-29'	G	1		X	X	HOLD
DB-15 (4-5')	Soil	2/9/23	09:17	4-5'	G	1		X	X	HOLD
DB-13 (4-5')	Soil	2/9/23	10:19	4-5'	G	1		X	X	HOLD
DB-13 (5-6')	Soil	2/9/23	10:20	5-6'	G	1		X	X	HOLD
DB-13 (6-7')	Soil	2/9/23	10:21	6-7'	G	1		X	X	HOLD
DB-13 (7-8')	Soil	2/9/23	10:22	7-8'	G	1		X	X	HOLD

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		2/9/23 1540	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
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Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD, STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829	Email:	bradley.wynne@aecom.com

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	
Project Number:	60689116	☐ Routine ☐ Rush	
Project Location:	Loving, Eddy County, NM	Due Date:	
Sampler's Name:	B. Gland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: NaSO$_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool; Chloride (EPA 300)	Sample Comments
DB-13 (8-9')	Soil	2/9/23	10:23	8-9'	G	1		X	HOLD
DB-13 (9-10')	Soil	2/9/23	10:24	9-10'	G	1		X	HOLD
DB-16 (4-5')	Soil	2/9/23	10:44	4-5'	G	1		X	HOLD
DB-14 (4-5')	Soil	2/9/23	11:37	4-5'	G	1		X	HOLD
DB-14 (5-6')	Soil	2/9/23	11:38	5-6'	G	1		X	HOLD
DB-14 (6-7')	Soil	2/9/23	11:39	6-7'	G	1		X	HOLD
DB-14 (7-8')	Soil	2/9/23	11:40	7-8'	G	1		X	HOLD
DB-14 (8-9')	Soil	2/9/23	11:41	8-9'	G	1		X	HOLD
DB-14 (9-10')	Soil	2/9/23	11:42	9-10'	G	1		X	HOLD
DB-17 (4-5')	Soil	2/9/23	12:00	4-5'	G	1		X	HOLD

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cloe	2/9/23 1540	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 4 of 4

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829	Email:	bradley.wynne@aecom.com

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	
Project Number:	60689116	☑ Routine ☐ Rush	
Project Location:	Loving, Eddy County, NM	Due Date:	
Sampler's Name:	B. Cleland, J. Lovely	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code: Cool	Parameters: Chloride (EPA 300)	Sample Comments
DB-18 (0-1')	Soil	2/9/23	12:24	0-1'	G	1	X	X	HOLD
DB-18 (2-3')	Soil	2/9/23	12:25	2-3'	G	1	X	X	HOLD
DB-18 (4-5')	Soil	2/9/23	12:26	4-5'	G	1	X	X	HOLD
DB-19 (0-1')	Soil	2/9/23	12:45	0-1'	G	1	X	X	HOLD
DB-19 (2-3')	Soil	2/9/23	12:46	2-3'	G	1	X	X	HOLD
DB-19 (4-5')	Soil	2/9/23	12:47	4-5'	G	1	X	X	HOLD

Preservative Codes

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cleo Cup	2/9/23 1540	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4082-1
SDG Number: 60689116

Login Number: 4082
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4082-1
SDG Number: 60689116

Login Number: 4082
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/13/23 08:35 AM

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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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Bradley Wynne
AECOM
13355 Noel Road
Suite 400
Dallas, Texas 75240

Generated 3/10/2023 3:18:53 PM

JOB DESCRIPTION

Amoco CTB
SDG NUMBER 60689116

JOB NUMBER

890-4256-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

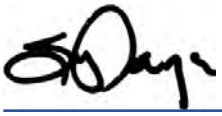
See page two for job notes and contact information.

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
3/10/2023 3:18:53 PM

Authorized for release by
Sylvia Garza, Project Manager
Sylvia.Garza@et.eurofinsus.com
(832)544-2004

Client: AECOM
Project/Site: Amoco CTB

Laboratory Job ID: 890-4256-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM Job ID: 890-4256-1
Project/Site: Amoco CTB SDG: 60689116

Qualifiers

HPLC/IC

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

Glossary

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

Case Narrative

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

Job ID: 890-4256-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4256-1

Receipt
The samples were received on 3/8/2023 1:00 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 5.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: DB-17A (1-2') (890-4256-1) and DB-15A (0-1') (890-4256-2).

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: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

Client Sample ID: DB-17A (1-2')

Lab Sample ID: 890-4256-1
Matrix: Solid
Date Collected: 03/08/23 09:55
Date Received: 03/08/23 13:00
Sample Depth: 1-2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	886		5.04		mg/Kg			03/09/23 17:21	1

Client Sample ID: DB-15A (0-1')

Lab Sample ID: 890-4256-2
Matrix: Solid
Date Collected: 03/08/23 11:40
Date Received: 03/08/23 13:00
Sample Depth: 0-1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2680		24.9		mg/Kg			03/09/23 17:26	5

QC Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

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 Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/23 13:56	1

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

QC Association Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

HPLC/IC

Leach Batch: 48181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4256-1	DB-17A (1-2')	Soluble	Solid	DI Leach	
890-4256-2	DB-15A (0-1')	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
890-4256-1	DB-17A (1-2')	Soluble	Solid	300.0	48181
890-4256-2	DB-15A (0-1')	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

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

Client Sample ID: DB-17A (1-2')

Date Collected: 03/08/23 09:55
Date Received: 03/08/23 13:00

Lab Sample ID: 890-4256-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	48181	03/09/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48224	03/09/23 17:21	SMC	EET MID

Client Sample ID: DB-15A (0-1')

Date Collected: 03/08/23 11:40
Date Received: 03/08/23 13:00

Lab Sample ID: 890-4256-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	48181	03/09/23 09:26	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	48224	03/09/23 17:26	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

Method Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4256-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4256-1	DB-17A (1-2')	Solid	03/08/23 09:55	03/08/23 13:00	1-2'
890-4256-2	DB-15A (0-1')	Solid	03/08/23 11:40	03/08/23 13:00	0-1'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	
Project Number:	60689116	☐ Routine ☒ Rush	
Project Location:	Loving, Eddy County, NM	Due Date:	3 Day TAT
Sampler's Name:	B. Cleland	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM #227
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code: Cool	Chloride (EPA 300)	Parameters
DB-17A (1-2')	Soil	3/8/23	09:55	1-2'	G	1	X	X	
DB-15A (0-1')	Soil	3/8/23	11:40	0-1'	G	1	X	X	

890-4256 Chain of Custody

Preservative Codes

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

Sample Comments

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuff	3/8/23 13:00	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4256-1
SDG Number: 60689116

Login Number: 4256
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	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4256-1
SDG Number: 60689116

Login Number: 4256
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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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Wallace Gilmore
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Generated 3/21/2023 4:38:14 PM

JOB DESCRIPTION

Amoco CTB
SDG NUMBER 60689116

JOB NUMBER

890-4257-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

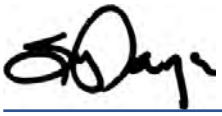
See page two for job notes and contact information.

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
3/21/2023 4:38:14 PM

Authorized for release by
Sylvia Garza, Project Manager
Sylvia.Garza@et.eurofinsus.com
(832)544-2004

Client: AECOM
Project/Site: Amoco CTB

Laboratory Job ID: 890-4257-1
SDG: 60689116

Table of Contents

Definitions/Glossary

Client: AECOM Job ID: 890-4257-1
Project/Site: Amoco CTB SDG: 60689116

Qualifiers

HPLC/IC

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

Glossary

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

Case Narrative

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

Job ID: 890-4257-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4257-1

Per client request analyze 15C for Chloride.

Receipt
The samples were received on 3/8/2023 1:00 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 5.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: DB-17B (1-2') (890-4257-1), DB-17C (1-2') (890-4257-2), DB-15B (0-1') (890-4257-3) and DB 15C (0-1') (890-4257-4).

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48498 and 880-48498 and analytical batch 880-48669 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: DB-17B (1-2') (890-4257-1), DB-15B (0-1') (890-4257-3), (890-4255-A-1-A), (890-4255-A-1-B MS) and (890-4255-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: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

Client Sample ID: DB-17B (1-2')

Lab Sample ID: 890-4257-1
Matrix: Solid
Date Collected: 03/08/23 10:25
Date Received: 03/08/23 13:00
Sample Depth: 1-2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	249		5.05		mg/Kg			03/15/23 22:33	1

Client Sample ID: DB-15B (0-1')

Lab Sample ID: 890-4257-3
Matrix: Solid
Date Collected: 03/08/23 11:50
Date Received: 03/08/23 13:00
Sample Depth: 0-1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5120		49.5		mg/Kg			03/15/23 22:38	10

Client Sample ID: DB 15C (0-1')

Lab Sample ID: 890-4257-4
Matrix: Solid
Date Collected: 03/08/23 12:00
Date Received: 03/08/23 13:00
Sample Depth: 0-1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1550		25.0		mg/Kg			03/20/23 21:21	5

QC Sample Results

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48498/1-A
Matrix: Solid
Analysis Batch: 48669

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/15/23 21:54	1

Lab Sample ID: LCS 880-48498/2-A
Matrix: Solid
Analysis Batch: 48669

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.0		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-48498/3-A
Matrix: Solid
Analysis Batch: 48669

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	266.4		mg/Kg		107	90 - 110	0	20

Lab Sample ID: MB 880-49029/1-A
Matrix: Solid
Analysis Batch: 49135

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/20/23 19:15	1

Lab Sample ID: LCS 880-49029/2-A
Matrix: Solid
Analysis Batch: 49135

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251.1		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-49029/3-A
Matrix: Solid
Analysis Batch: 49135

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	251.9		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

HPLC/IC

Leach Batch: 48498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4257-1	DB-17B (1-2')	Soluble	Solid	DI Leach	
890-4257-3	DB-15B (0-1')	Soluble	Solid	DI Leach	
MB 880-48498/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48498/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48498/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 48669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4257-1	DB-17B (1-2')	Soluble	Solid	300.0	48498
890-4257-3	DB-15B (0-1')	Soluble	Solid	300.0	48498
MB 880-48498/1-A	Method Blank	Soluble	Solid	300.0	48498
LCS 880-48498/2-A	Lab Control Sample	Soluble	Solid	300.0	48498
LCSD 880-48498/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48498

Leach Batch: 49029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4257-4	DB 15C (0-1')	Soluble	Solid	DI Leach	
MB 880-49029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 49135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4257-4	DB 15C (0-1')	Soluble	Solid	300.0	49029
MB 880-49029/1-A	Method Blank	Soluble	Solid	300.0	49029
LCS 880-49029/2-A	Lab Control Sample	Soluble	Solid	300.0	49029
LCSD 880-49029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49029

Lab Chronicle

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

Client Sample ID: DB-17B (1-2')

Lab Sample ID: 890-4257-1

Date Collected: 03/08/23 10:25
Matrix: Solid
Date Received: 03/08/23 13:00

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	48498	03/13/23 14:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48669	03/15/23 22:33	SMC	EET MID

Client Sample ID: DB-15B (0-1')

Lab Sample ID: 890-4257-3

Date Collected: 03/08/23 11:50
Matrix: Solid
Date Received: 03/08/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	48498	03/13/23 14:00	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	48669	03/15/23 22:38	SMC	EET MID

Client Sample ID: DB 15C (0-1')

Lab Sample ID: 890-4257-4

Date Collected: 03/08/23 12:00
Matrix: Solid
Date Received: 03/08/23 13:00

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	49029	03/20/23 15:45	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	49135	03/20/23 21:21	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

Method Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: AECOM
Project/Site: Amoco CTB

Job ID: 890-4257-1
SDG: 60689116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4257-1	DB-17B (1-2')	Solid	03/08/23 10:25	03/08/23 13:00	1-2'
890-4257-3	DB-15B (0-1')	Solid	03/08/23 11:50	03/08/23 13:00	0-1'
890-4257-4	DB 15C (0-1')	Solid	03/08/23 12:00	03/08/23 13:00	0-1'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	BRAD WYNNE	Bill to: (if different)	
Company Name:	AECOM	Company Name:	
Address:	13355 NOEL RD., STE. 400	Address:	
City, State ZIP:	DALLAS, TX 75240	City, State ZIP:	
Phone:	214-971-1829 Email:	bradley.wynne@aecom.com	

Work Order Comments

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

Project Name:	Amoco CTB	Turn Around	
Project Number:	60689116	☐ Routine ☒ Rush BC	
Project Location:	Loving, Eddy County, NM	Due Date: [redacted]	
Sampler's Name:	B. Cland	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.6

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
NaHSO 4: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cool	Chloride (EPA 300)	Sample Comments
DB-17B (1-2')	Soil	3/8/23	10:25	1-2'	G	1			X	HOLD
DB-17C (1-2')	Soil	↓	11:05	1-2'	G	1			X	HOLD
DB-15B (0-1')	Soil		11.50	0-1'	G	1			X	HOLD
DB-15C (0-1')	Soil		12 00	0-1'	G	1			X	HOLD

890-4257 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_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuff	3/8/23 13:00	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4257-1
SDG Number: 60689116

Login Number: 4257
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	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 890-4257-1
SDG Number: 60689116

Login Number: 4257
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	

CARDINAL Laboratories

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

April 19, 2024

BRAD WYNNE

AECOM - DALLAS

13355

DALLAS, TX 75240

RE: AMOCO CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/18/24 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS
BRAD WYNNE
13355
DALLAS TX, 75240
Fax To:

Received:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/19/2024	Sampling Type:	Soil
Project Name:	AMOCO CTB	Sampling Condition:	Cool & Intact
Project Number:	60729416	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: DB - 20A (0-1') (H242063-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1560**	16.0	04/18/2024	ND	480	120	400	0.00	

Sample ID: DB - 19A (0-1') (H242063-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	04/18/2024	ND	480	120	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	AECOM
Project Manager:	BRAD WYNNE
Address:	13355 NOEL ROAD, SUITE 400
City:	DALLAS State: TX Zip: 75240
Phone #:	214-971-1829 Fax #:
Project #:	60729416 Project Owner: Chevron MCBU
Project Name:	Amoco CTB
Project Location:	Eddy County, NM
Sampler Name:	BRENT CLAND

BILL TO

P.O. #:	60729416
Company:	AECOM
Attn:	BRAD WYNNE
Address:	13355 Noel Rd, Ste. 400
City:	DALLAS
State:	TX Zip: 75240
Phone #:	214-971-1829
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride NM Method SM4500 CLB
H242063 1	DB-20A (0-1')	G	1			X					X		4/17/24	11:35	X
2	DB-19A (0-1')	G	1			X					X		4/17/24	15:45	X

Relinquished By:	Date: 4/18/24 Time: 08:00	Received By:	
BRENT CLAND - AECOM			
Relinquished By:	Date: Time:	Received By:	

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
bradley.wynne@aecom.com
REMARKS:
Pg. 1 of 1 Run on RUSH TAT (24-HR)

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 3.8
Corrected Temp. °C
Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No
CHECKED BY: (Initials) SK

Turnaround Time: Standard ☐ Rush ☒
Thermometer ID #140
Correction Factor 0°C
Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

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

FORM-006 R 3.4 07/11/23

CARDINAL Laboratories

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

April 23, 2024

BRAD WYNNE

AECOM - DALLAS

13355

DALLAS, TX 75240

RE: AMOCO CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/18/24 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS 13355 DALLAS TX, 75240	Project: AMOCO CTB Project Number: 60729416 Project Manager: BRAD WYNNE Fax To:	Reported: 23-Apr-24 08:29

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DB - 20 B (0-1')	H242064-02	Soil	17-Apr-24 12:30	18-Apr-24 08:00
DB - 20 C (0-1')	H242064-04	Soil	17-Apr-24 13:05	18-Apr-24 08:00
DB - 19 B (0-1')	H242064-10	Soil	17-Apr-24 16:37	18-Apr-24 08:00
DB - 19 C (0-1')	H242064-12	Soil	17-Apr-24 17:16	18-Apr-24 08:00

04/23/24 - Client added chlorides to samples -04 and -12 (see COC). This is the revised report and will replace the one sent on 04/22/24.

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS 13355 DALLAS TX, 75240	Project: AMOCO CTB Project Number: 60729416 Project Manager: BRAD WYNNE Fax To:	Reported: 23-Apr-24 08:29

DB - 20 B (0-1')

H242064-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2120**		16.0	mg/kg	4	4042203	AC	22-Apr-24	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS 13355 DALLAS TX, 75240	Project: AMOCO CTB Project Number: 60729416 Project Manager: BRAD WYNNE Fax To:	Reported: 23-Apr-24 08:29

DB - 20 C (0-1')

H242064-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2000**		16.0	mg/kg	4	4042307	AC	23-Apr-24	4500-Cl-B	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS 13355 DALLAS TX, 75240	Project: AMOCO CTB Project Number: 60729416 Project Manager: BRAD WYNNE Fax To:	Reported: 23-Apr-24 08:29

DB - 19 B (0-1')

H242064-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**800**		16.0	mg/kg	4	4042203	AC	22-Apr-24	4500-Cl-B	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS 13355 DALLAS TX, 75240	Project: AMOCO CTB Project Number: 60729416 Project Manager: BRAD WYNNE Fax To:	Reported: 23-Apr-24 08:29

DB - 19 C (0-1')

H242064-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1340**		16.0	mg/kg	4	4042307	AC	23-Apr-24	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS 13355 DALLAS TX, 75240	Project: AMOCO CTB Project Number: 60729416 Project Manager: BRAD WYNNE Fax To:	Reported: 23-Apr-24 08:29

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4042203 - 1:4 DI Water										
Blank (4042203-BLK1)				Prepared & Analyzed: 22-Apr-24						
Chloride	ND	16.0	mg/kg							
LCS (4042203-BS1)				Prepared & Analyzed: 22-Apr-24						
Chloride	480	16.0	mg/kg	400		120	80-120			
LCS Dup (4042203-BSD1)				Prepared & Analyzed: 22-Apr-24						
Chloride	480	16.0	mg/kg	400		120	80-120	0.00	20	
Batch 4042307 - 1:4 DI Water										
Blank (4042307-BLK1)				Prepared & Analyzed: 23-Apr-24						
Chloride	ND	16.0	mg/kg							
LCS (4042307-BS1)				Prepared & Analyzed: 23-Apr-24						
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (4042307-BSD1)				Prepared & Analyzed: 23-Apr-24						
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	AECOM
Project Manager:	BRAD WYNNE
Address:	13355 NOEL ROAD, SUITE 400
City:	DALLAS
State:	TX
Zip:	75240
Phone #:	214-971-1829
Fax #:	
Project #:	60729416
Project Owner:	Chevron MCBU
Project Name:	Amoco CTB
Project Location:	Eddy County, NM
Sampler Name:	BRENT CLAND

BILL TO

P.O. #:	60729416
Company:	AECOM
Attn:	BRAD WYNNE
Address:	13355 Noel Rd, Ste. 400
City:	DALLAS
State:	TX
Zip:	75240
Phone #:	214-971-1829
Fax #:	

FOR LAB USE ONLY

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Chloride NM Method SM4500ClB	Hold Removed 4-19-24	Hold Removed 4/21/24 Ch Same Day Rush
H242064 1	DB-20A (1-1.5')	G	1			X					X		4/17/24	11:36	X		
2	DB-20B (0-1')	G	1			X					X		↓	12:30	X	✓	
3	DB-20B (1-1.5')	G	1			X					X			12:31	X		
4	DB-20C (0-1')	G	1			X					X			13:05	X		X
5	DB-21A (0-1')	G	1			X					X			13:52	X		
6	DB-21A (1-2')	G	1			X					X			13:53	X		
7	DB-21B (0-1')	G	1			X					X			14:45	X		
8	DB-21B (1-2')	G	1			X					X			14:46	X		
9	DB-19A (1-1.5')	G	1			X					X			15:46	X		
10	DB-19B (0-1')	G	1			X					X			16:37	X	✓	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: BRENT CLAND - AECOM [signature]	Date: 4/18/24 Time: 08:00	Received By: [signature]
Relinquished By:	Date: Time:	Received By:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: (Sampler circled)	Observed Temp. °C 3.8 Corrected Temp. °C	Sample Condition Cool Intact ☑ Yes ☑ Yes ☐ No ☐ No
CHECKED BY: (Initials) [initials]		

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address: bradley.wynne@aecom.com

REMARKS: Pg. 1 of 2 HOLD all samples

Turnaround Time: Standard ☐ Rush ☐ 24 HR

Thermometer ID #140
Correction Factor 0°C

Bacteria (only) Sample Condition
Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No
Observed Temp. °C
Corrected Temp. °C

FORM-006 R 3.4 07/11/23

† Cardinal [illegible] accept verbal changes. Please email changes to celey.k[illegible]@[illegible]labsnm.com

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	AECOM	**BILL TO** P.O. #:	60729416
Project Manager:	BRAD WYNNE	Company:	AECOM
Address:	13355 NOEL ROAD, SUITE 400	Attn:	BRAD WYNNE
City:	DALLAS State: TX Zip: 75024	Address:	13355 NOEL RD, STE. 400
Phone #:	214-971-1829 Fax #:	City:	DALLAS
Project #:	60729416 Project Owner:	State:	TX Zip: 75240
Project Name:	Amoco CTB	Phone #:	214-971-1829
Project Location:	Eddy County, NM	Fax #:	
Sampler Name:	BRENT CLAND		

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chloride NM Method SM4500 Cl B	Held Removed 4/22/24 Cl	Sample ID										
H242204																											
11	DB-19B (1-1.5')	G	1			X					X		4/17/24	16:38	X												
12	DB-19C (0-1')	G	1			X					X			17:16	X	X											
13	DB-19C (1-2')	G	1			X					X		↓	17:17	X												

Relinquished By:	Date: 4-18-24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
BRENT CLAND - AECOM	Time: 0800		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	bradley.wynne@aecom.com
	Time:		REMARKS: pg. 2 of 2 HOLD all samples

Delivered By: (Circle One)	Observed Temp. °C 3.8	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☑ 24 HR
Sampler - UPS - Bus - Other:	Corrected Temp. °C	☐ Yes ☐ Yes ☐ No ☐ No	SR	Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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

CARDINAL Laboratories

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

April 24, 2024

BRAD WYNNE

AECOM - DALLAS

13355

DALLAS, TX 75240

RE: AMOCO CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/23/24 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

AECOM - DALLAS
BRAD WYNNE
13355
DALLAS TX, 75240
Fax To:

Received:	04/23/2024	Sampling Date:	04/23/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	AMOCO CTB	Sampling Condition:	Cool & Intact
Project Number:	60729416	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: DB - 19 D (0-1') (H242171-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	04/24/2024	ND	432	108	400	3.77	

Sample ID: DB - 20 D (0-1') (H242171-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	04/24/2024	ND	432	108	400	0.00	QM-07

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	AECOM	P.O. #:	60729416
Project Manager:	BRAD WYNNE	Company:	AECOM
Address:	13355 NOEL ROAD, SUITE 400	Attn:	BRAD WYNNE
City:	DALLAS State: TX Zip: 75240	Address:	13355 Noel Rd, Ste. 400
Phone #:	214-971-1829 Fax #:	City:	DALLAS
Project #:	60729416 Project Owner: Chevron MCBU	State:	TX Zip: 75240
Project Name:	Amoco CTB	Phone #:	214-971-1829
Project Location:	Eddy County, NM	Fax #:	
Sampler Name:	BRENT CLAND		

ANALYSIS REQUEST: Chloride NM Method SM4500 Cl-B

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME
H24277 1	DB-19D (0-1')	G	1			X					X		4/23/24	13:27
2	DB-20D (0-1')	G	1			X					X		4/23/24	14:34

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	BRENT CLAND - AECOM	Date: 4/23/24 Time: 16:30	Received By:
Relinquished By:		Date: Time:	Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address: bradley.wynne@aecom.com
REMARKS: Pg. 1 of 1 RUN Samples on RUSH TAT (24-HOUR)

Delivered By: (Circle One)	Observed Temp. °C 5.8	Sample Condition Cool: ☐ Yes ☐ No	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☒ (24-HOUR)
Sampler UPS - Bus - Other:	Corrected Temp. °C	Intact: ☐ Yes ☐ No		Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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aecom.com

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District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 338938

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 338938
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2216547154**
Incident Name	**NAPP2216547154 AMOCO FEDERAL 11 CTB @ 0**
Incident Type	**Oil Release**
Incident Status	**Remediation Plan Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	AMOCO FEDERAL 11 CTB
Date Release Discovered	06/03/2022
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Separator | Crude Oil | Released: 2 BBL | Recovered: 1 BBL | Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Separator | Produced Water | Released: 5 BBL | Recovered: 0 BBL | Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

District I
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Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 338938
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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

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

I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 04/30/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
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1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 338938
	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
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (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 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Between 100 and 200 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission		Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Have the lateral and vertical extents of contamination been fully delineated		Yes
Was this release entirely contained within a lined containment area		No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	12900
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	1060
GRO+DRO	(EPA SW-846 Method 8015M)	837
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		07/01/2024
On what date will (or did) the final sampling or liner inspection occur		09/01/2024
On what date will (or was) the remediation complete(d)		09/01/2024
What is the estimated surface area (in square feet) that will be reclaimed		0
What is the estimated volume (in cubic yards) that will be reclaimed		0
What is the estimated surface area (in square feet) that will be remediated		54243
What is the estimated volume (in cubic yards) that will be remediated		10450
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.		

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

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 338938
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
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: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 04/30/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 338938
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 338938
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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

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CONDITIONS

Action 338938

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 338938
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation plan conditionally approved.	5/8/2024
bhall	OCD will not approve base confirmation samples representative of approximately 1,000 square feet and walls samples spaced at no more than 100 feet. OCD will approve base and wall confirmation soil samples consisting of five-point composite samples representing a surface area of no more than 500 square feet, and individual grab samples from any wet or discolored areas.	5/8/2024
bhall	Numerous delineation samples were not analyzed for TPH or benzene therefore, these constituents cannot be ruled out as contaminants of concern. All confirmation samples must be analyzed for TPH, BTEX, and chloride. All confirmation samples must meet the most stringent closure criteria listed on Table I of 19.15.29 NMAC.	5/8/2024
bhall	The requested deferral for the area within/below the active separator tank battery and associated piping is not approved with this submission as a deferral request C-141 (C-141-V-DEFERRAL) was not submitted. Additionally, a deferral request will not be approved until all contaminated soil located in areas which do not qualify for a deferral is remediated to Table I closure criteria or other applicable remediation standards, and/or reclaimed if applicable, pursuant to 19.15.29 NMAC. The deferral report must include an executive summary of all remedial activities, a scaled site map and sampling diagram, photographs of remedial activities, and laboratory analyses of final sampling for the areas that do not qualify for deferral. Additionally, the deferral request C-141 must specify which areas of the active production pad for which a deferral is requested, the square footage and volume of the area, and an explanation why the contaminants can't be removed.	5/8/2024
bhall	After the groundwater determination boring (currently scheduled for completion the week of 5/20/2024 per the email received by OCD representatives on 5/8/2024) is completed, the remediation plan section of the C-141 will need to be updated to reflect the correct depth to groundwater, if applicable. This section of the C-141 will automatically be imported into the C-141 application when the closure report is submitted.	5/8/2024
bhall	Submit a complete and accurate closure report through the OCD Permitting website by 8/9/2024. Failure to submit a complete remediation closure report by 8/9/2024 is subject to compliance and enforcement penalties pursuant to 19.15.5 NMAC.	5/8/2024