Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

June 12, 2025

New Mexico Oil Conservation Division
District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: West Lovington Unit #063
Soil Remediation Summary and Closure Request Report
Incident # nPLM0830339670
Case No. 1RP-1993

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #063 Soil Remediation Summary and Closure Request Report

The report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC) for Chevron Midcontinent L.P.

Please do not hesitate to call Scott Foord with Arcadis at 713.953.4853, or myself at 661.401.0359, should you have any questions.

Sincerely,

Chris Brand

Encl. Soil Remediation Summary and Closure Request Report
West Lovington Unit #063

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

Chris Brand
Environmental Remediation/ Facility Decom Advisor
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ARCADIS

Chevron Environmental Management Company

2025 Soil Remediation Summary and Closure Request Report

West Lovington Unit #063

Incident # nPLM0830339670

Case No. 1RP-1993

Lea County, New Mexico

June 2025

2025 Soil Remediation Summary and Closure Request Report

West Lovington Unit #063
Incident # nPLM0830339670
Case No. 1RP-1993
Lea County, New Mexico

June 2025

Prepared By:
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2025 Soil Remediation Summary and Closure Request Report
West Lovington Unit #063

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Soil Remediation Summary and Closure Request Report for Chevron Environmental Management Company (CEMC) on behalf of Chevron U.S.A. Inc., through its division Chevron North America Exploration and Production Company, for the release site known as the West Lovington Unit #063 (Site) located at coordinates: 32.852454, -103.364926.

2 Project Summary

The Site is located on private owned land approximately 6.29 miles south of the City of Lovington in Unit D, Section 9, Township 17 South, Range 36 East, Lea County, New Mexico. The site is located within a low karst area. A Site Location Map is included as **Figure 1** and a Topographic Map as **Figure 2**.

According to the Initial C-141 Form, on April 1, 2007, a soil boring investigation was conducted at Site No. 173609C located adjacent to the Unit Boundary of the West Lovington Unit. Two separate boreholes indicated the presence of chloride, benzene, toluene, ethylbenzene, xylenes (BTEX), and various hydrocarbon chains at concentrations sufficient to warrant further investigation. Verbal notification of potential groundwater impact was made to Chris Williams at the local New Mexico Oil Conservation Division (NMOCD) district office on February 1, 2008. The time and source of the impacting event (release) is unknown. The Initial C-141 Form was approved on October 29, 2008, and assigned remediation permit number 1RP-1993 and incident number nPLM0830339670.

3 Soil Assessment Activities

In February 2021, and subsequently in March 2023, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of fourteen (14) sample points (SB-1 through SB-14) were advanced to depths ranging from the surface to 4 feet below ground surface (bgs) inside and surrounding the release area to evaluate the horizontal and vertical extents of the release. Horizontal and vertical delineation was assessed in each cardinal direction to determine the potential area of concern. Arcadis used this data and field screening to guide remediation activities prior to collecting any confirmation samples. The Work Plan is included as **Appendix A**.

4 Site Characterization

There are several groundwater monitoring wells located onsite with depth to groundwater verified at less than 50 feet (ft) below ground surface (bgs). As such, assessment activities completed to date and remediation/reclamation activities at the Site have been evaluated assuming a Site with a depth to groundwater as less than 50 ft bgs for soils within the first 4 feet of soil and within soil greater than 4 ft bgs. Site characterization data is included in the Work Plan in **Appendix A**.

5 NMAC Regulatory Criteria

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for reclamation activities within the first 4 feet of soil and within soil greater than 4 feet bgs:

Constituent	Limit (mg/kg)
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Oil Range Organics (ORO)	100 mg/kg
Chloride	600 mg/kg

6 Remediation Activities Summary

6.1 Soil Removal

Soil remediation activities were performed from April 25, 2025, through May 20, 2025. Photo-ionization detector (PID) readings, chloride field screening with Hach field test strip results, and laboratory analytical results from the pre-remediation assessment activities were evaluated prior to and during remediation activities to determine the horizontal and vertical extent of soil impacted by the release. Horizontal and vertical delineation of the impacted soil requiring removal was based on samples collected from the perimeter and bottom of the release area. Based on these results, it was determined that the release covered an approximately 2,487 square foot (sq ft) area. Excavation activities were conducted to a maximum depth of approximately 4.75 feet bgs. Approximately 400 cubic yards of impacted soil were excavated from the release area. The limits of the excavation are presented in **Figure 3** and **Figure 4**. Excavated soil was stockpiled on-site, adjacent to the release area on 20 millimeter (mil) thick plastic sheeting and covered with 20 mil plastic sheeting during remediation activities.

The stockpiled soil was disposed offsite at the Gandy Marley Landfill located in Roswell, New Mexico as Class 2 non-hazardous material. Copies of disposal manifests can be provided upon request.

6.2 Excavation Confirmation Sampling Activities

Arcadis, personnel conducted excavation confirmation soil sampling activities from April 30, 2025, through May 15, 2025, for laboratory analyses. Following excavation of the impacted area, 5-point composite confirmation soil samples were collected from the excavation area as needed to maintain an approximate 200 square foot sample spacing or less for both sidewall and base of the excavated area. The excavation sidewall confirmation sample locations are depicted in **Figure 3** and excavation base confirmation samples are depicted in **Figure 4**.

The confirmation soil samples were collected for chemical analyses, placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins

Laboratories in Midland, Texas. The samples were analyzed for modified BTEX by EPA Method 8021B, TPH by United States Environmental Protection Agency (EPA) Method 8015, and chloride by EPA method 300. Soil sample analytical results are summarized in **Table 1**. The laboratory analytical report is included in **Appendix B.**

6.2.1 BTEX

BTEX concentrations were reported below the NMOCD reclamation and remediation standards.

6.2.2 TPH

TPH concentrations were reported below the NMOCD reclamation and remediation standards for GRO, DRO, and ORO.

6.2.3 Chloride

Chloride concentrations were reported below the NMOCD reclamation and remediation standards.

7 Restoration, Reclamation, and Re-Vegetation Activities

Prior to backfill, a 5-point composite sample was collected from the backfill material to confirm all constituents were below the NMOCD reclamation standards for BTEX, TPH, and chloride and the analytical results are included in **Table 1** and **Appendix B**. Upon receiving laboratory analytical data confirming impacted soil over the applicable restoration limits had been removed from the release area, the excavated area was backfilled with locally sourced, non-impacted "like" material suitable to establish vegetation growth.

Approximately 2,487 square feet of the area of concern pertaining to the remediated area for incident number nPLM0830339670 was restored to its near original condition. The area was contoured and/or compacted to achieve erosion control, stability, and preservation of surface water flow to the extent practicable.

The area has not been re-seeded at this time. The area will be re-seeded during the first favorable growing season with a NMSLO approved seed mixture based on documented soil types proximate to the site. A separate revegetation report will be submitted to the NMOCD once revegetation activities have been completed.

8 Summary

Analytical results associated with the remediation activities conducted in 2025 indicate that the horizontal and vertical extent of BTEX, TPH, and chloride impact in soil above NMAC screening standards have been remediated (excavated) from the impacted area. The area was backfilled with clean/ suitable material to establish vegetation growth, graded to match the original surface conditions and drainage, and restored to its near original condition.

Photographic documentation of the remediation and restoration activities are included in **Appendix C.**

9 Remediation Closure Request

Remediation activities were conducted in accordance with the NMOCD standards outlined in Table I of NMAC part 19.15.29.12 utilizing 200 square foot composite areas. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria for the remediated area at the Site.

Based on laboratory analytical results and field activities conducted to date, no additional soil assessment or remediation activities are recommended at this time at the Site.

Arcadis requests remediation closure be granted to the West Lovington Unit #063 for Incident Number nPLM0830339670.

A separate revegetation report will be submitted to the NMOCD once revegetation activities have been completed.

Tables

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 63
Lea County, NM

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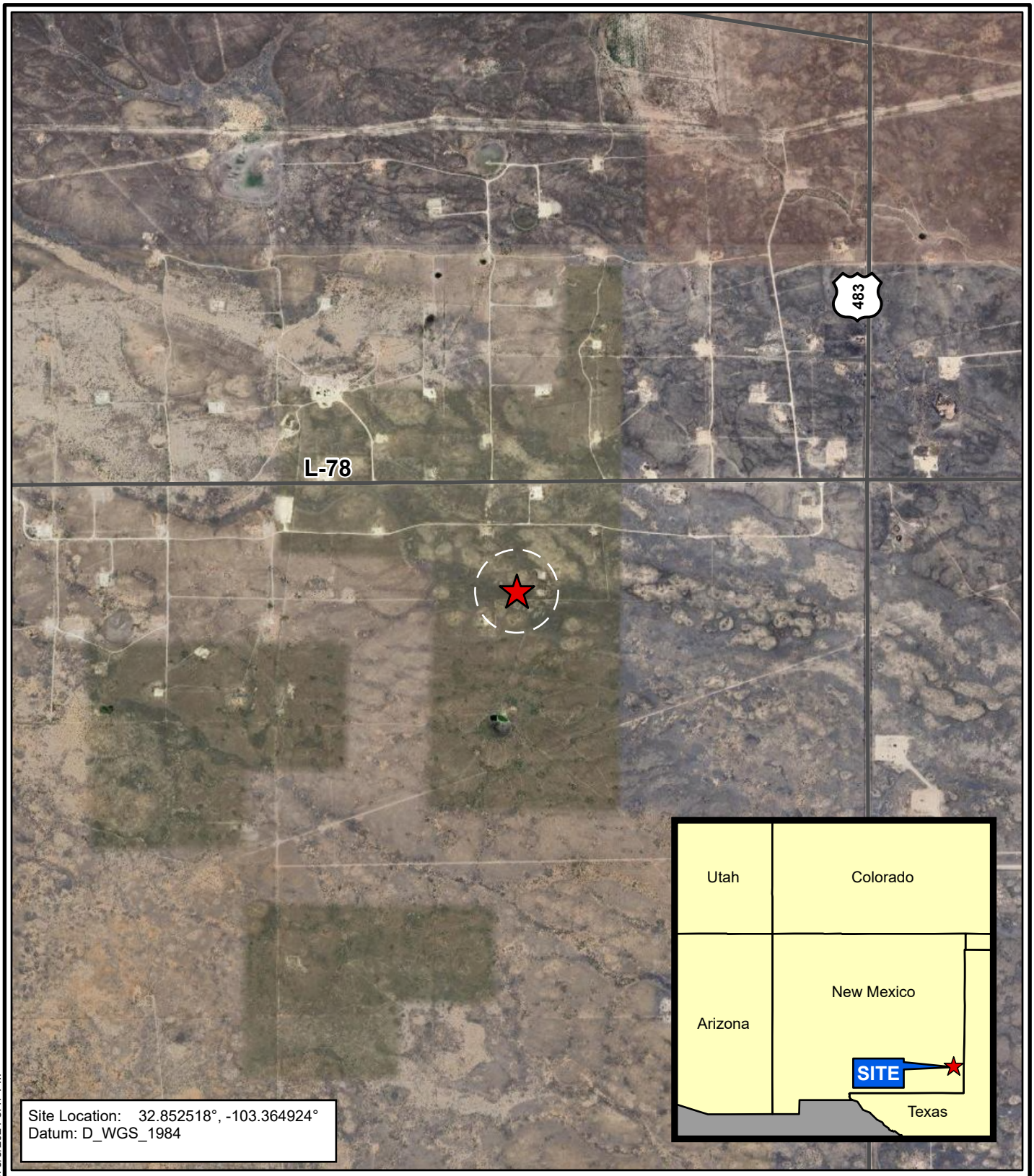
Sample I.D.	Sample Depth (feet bgs)	Date	Soil Satus	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH GRO + DRO	TPH MRO	Total TPH	Chloride
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards				10	--	--	--	50	--	--	1,000	--	100	600
Restoration Requirements				10	--	--	--	50	--	--	--	--	100	600
SW-1	0-2.5'	04/30/25	In-Situ	<0.00139	<0.00200	0.00398 B	0.00373 J	0.00771	14.6 J B	<15.1	<15.1	<15.1	<15.1	434
SW-2	0-2'	04/30/25	In-Situ	<0.00139	<0.00200	<0.00109	0.00246 J	0.00246 J	23.6 J B	55.8	79.4 J B	<15.1	79.4	100
SW-3	0-2'	04/30/25	Removed	--	--	--	--	--	30.4 J B	338	368.4 J B	<15.1	**368**	88.9
SW-3A	0-4'	05/07/25	In-Situ	<0.00139	<0.00200	<0.00109	0.00280 J	0.00280 J	<14.6	36.4 J	36.4 J	<15.2	36.4 J	108
SW-4	0-2'	04/30/25	In-Situ	<0.00140	<0.00201	0.00143 J B	<0.00229	<0.00229	<14.5	<15.1	<15.1	<15.1	<15.1	165
SW-5	0-4'	05/07/25	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	23.0 J	23.0 J	<15.1	23.0 J	81.8
B-1	2.5'	04/30/25	In-Situ	<0.00138	<0.00199	0.00124 J B	<0.00227	<0.00227	16.3 J B	<15.1	16.3 J B	<15.1	16.3 J	433
B-2	2'	04/30/25	In-Situ	0.00239	<0.00199	<0.00108	0.00565	0.00804	22.3 J B	<15.1	22.3 J B	<15.1	22.3 J	105
B-3	2'	04/30/25	In-Situ	0.00234	<0.00198	0.00117 J B	<0.00226	0.00351 J	28.3 J B	<15.1	28.3 J B	<15.1	28.3 J	99.5
B-4	2'	04/30/25	In-Situ	0.00454	0.00488	0.00319	0.00588	0.0185	20.9 J B	<15.1	20.9 J B	<15.1	20.9 J	78.9
B-5	2'	04/30/25	Removed	--	--	--	--	--	20.4 J B	95.4	115.8 J B	<15.1	**116**	83.1
B-5A	4'	05/07/25	In-Situ	<0.00138	<0.00199	0.00137	<0.00227	<0.00227	<14.4	<15.0	<15.0	<15.0	<15.0	104
B-6	2'	04/30/25	In-Situ	<0.00141	0.00387	0.00432	<0.00231	0.0104	14.5 J	34.6 J	49.1 J	<15.1	49.1 J	96.8
B-7	2'	04/30/25	Removed	--	--	--	--	--	<14.5	101	101	<15.1	**101**	86.1
B-7A	4'	05/07/25	Removed	--	--	--	--	--	16.9 J B	84.2	101.1 J B	<15.1	**101**	--
B-7B	4.5'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	37.1 J	37.1 J	<15.1	37.1 J	76.0
B-8	2'	04/30/25	In-Situ	0.00139 J	<0.00199	0.00450	<0.00227	0.00777	<14.5	25.9 J	25.9 J	<15.1	25.9 J	89.5
B-9	2'	04/30/25	Removed	--	--	--	--	--	<14.5	214	214	<15.1	**214**	160
B-9A	4'	05/07/25	Removed	--	--	--	--	--	103 B	634	737 B	<15.1	**737**	--
B-9B	4.5'	05/15/25	Removed	--	--	--	--	--	<14.5	122	122	<15.1	**122**	--
B-9C	4.75'	05/20/25	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	31.0 J B	31.0 J B	<15.1	31.0 J	88.5
B-10	2'	04/30/25	In-Situ	0.00673	0.00897	0.00187 J	0.00507	0.0226	<14.8	<15.1	<15.1	<15.1	<15.1	103
B-11	2'	04/30/25	Removed	--	--	--	--	--	<14.5	109	109	<15.1	**109**	125
B-11A	4'	05/07/25	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	70.0	70.0	<15.1	70.0	95.8
B-12	2'	04/30/25	Removed	--	--	--	--	--	<14.5	174	174	<15.1	**174**	110
B-12A	4'	05/07/25	Removed	--	--	--	--	--	34.6 J B	196	230.6 J B	<15.3	**231**	--
B-12B	4.5'	05/15/25	In-Situ	<0.00139	<0.00199	<0.00108	<0.00228	<0.00228	<14.5	29.5 J	29.5 J	<15.1	29.5 J	61.0
B-13	2'	05/07/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	64.8	64.8	<15.1	64.8	86.5
Backfill	--	3/28/2025	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	<15.1	529

Legend:
BOLD = Analytes exceeding Restoration Requirement
--: Not available/not applicable
" ' " : Indicates one foot
ft: foot
F1: Matrix Spike and/or Matix Spike Duplicate recovery exceeds control limits.
J: Result is less than the Reprting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.
'<' indicates the analyte was not detected at or above the MDL.
mg/kg: Milligram per Kilogram
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code. Criteria based off of depth to groundwater of 51-100 feet.
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroluem Hydrocarbons Motor Oil Range Organics
TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
Total TPH: GRO + DRO + MRO
*Revised screening limit and restoration criteria within the first 4 feet below ground surface per Rule 19.15.29 effective August 14, 2018

Notes:
1. Chloride analyzed by United States Environmental Protection Agency (USEPA) Method 300.0
2. TPH analyzed by USEPA Method SW846 8015B NM
3. BTEX analyzed by USEPA Method SW846 8021B
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures



Legend

Site Location

Credits: ESRI Online, Google Earth

0 2,000 4,000 Feet

GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

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FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
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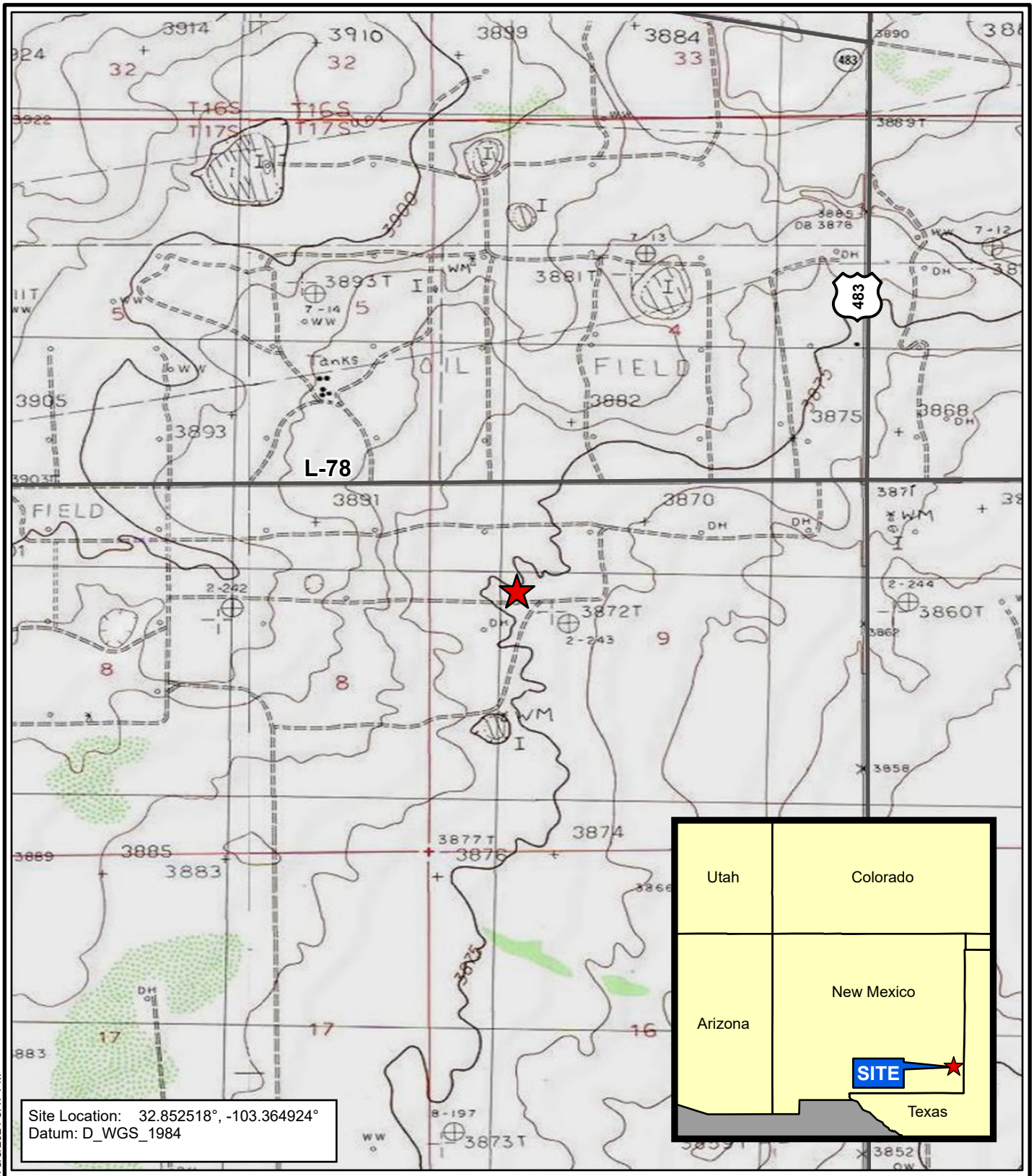

Legend

Site Location

Credits: ESRI Online, USGS 24,000 K Topo (Map Service)
Red Lake, New Mexico Quadrangle

0 2,000 4,000 Feet
GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE
2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_63_Proj\WLU_63.aprx 5/8/2024 8:47 PM

LEGEND:

- Sidewall Soil Sample Location
- Excavated Area

0 25 50 Feet

GRAPHIC SCALE

Datum: D_WGS_1984
Source: ESRI Online, Google Earth
Site Location: 32.852518°, -103.364924°

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

EXCAVATION SIDEWALL SOIL SAMPLE LOCATIONS

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FIGURE 3

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: yadavs0264 ; Client (Project #)
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LEGEND:

- Base Soil Sample Location
- Excavated Area

0 25 50 Feet

GRAPHIC SCALE

Datum: D_WGS_1984
Source: ESRI Online, Google Earth
Site Location: 32.852518°, -103.364924°

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

EXCAVATION BASE SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE 4

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: yadavs0264 ; Client (Project #)
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Appendix A

Work Plan

Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

March 18, 2025

New Mexico Oil Conservation Division
District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: West Lovington Unit 63
Soil Remediation Work Plan
Incident No. nPLM0830339670
Case No. 1RP-1993

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #063 Soil Remediation Work Plan

The Work Plan was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC) for Chevron USA Inc.

Please do not hesitate to call Scott Foord with Arcadis at 713.953.4853, or myself at 661.401.0359, should you have any questions.

Sincerely,

Chris Brand

Encl. 2025 Work Plan
West Lovington Unit 63

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

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ARCADIS

Chevron Environmental Management Company

2025 Work Plan

West Lovington Unit 63

Lea County, New Mexico

Incident # nPLM0830339670

March 2025

2025 Work Plan

West Lovington Unit 63

Incident # nPLM0830339670

Lea County, New Mexico

March 2025

Prepared By:
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2025 Work Plan
West Lovington Unit 63

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Work Plan, for Chevron Environmental Management Company (CEMC) on behalf of Chevron U.S.A. Inc., through its division Chevron North America Exploration and Production Company, for the release site known as the West Lovington Unit 63 (Site) located at coordinates: 32.852518, -103.364924. Details of the release are summarized in the New Mexico Oil Conservation Division (NMOCD) Initial C-141 Form included as **Appendix A**.

2 Project Summary

The Site is located on private owned land approximately 6.29 miles south of the City of Lovington in Unit D, Section 9, Township 17 South, Range 36 East, Lea County, New Mexico. The site is located within a low karst area. A Site Location Map is included as **Figure 1** and a Topographic Map as **Figure 2**.

2.1 Incident # nPLM0830339670

According to the Initial C-141 Form, on April 1, 2007, a soil boring investigation was conducted at site No. 173609C located adjacent to the Unit Boundary of the West Lovington Unit. Two separate boreholes indicated the presence of chloride, benzene, toluene, ethylbenzene, xylenes (BTEX), and various hydrocarbon chains at concentrations sufficient to warrant further investigation. Verbal notification of potential groundwater impact was made to Chris Williams at the local NMOCD district office on February 1, 2008. The time and source of the impacting event (release) is unknown. The Initial C-141 Form for this release was submitted to the NMOCD on March 17, 2008 and approved by NMOCD on October 29, 2008. The release was assigned remediation permit number 1RP-1993. The Initial C-141 Form for this release is included in **Appendix A**.

On December 17, 2023, a request to remove the site from the Agreed Compliance Order (ACO) List and to reassign the site with a pending abatement plan status was submitted to the NMOCD due to confirmation of groundwater monitoring wells in vicinity of site. The request was approved by NMOCD on January 10, 2024. The approval is included in **Appendix B**.

3 Site Characterization

There are several groundwater monitoring wells located onsite with depth to groundwater verified at less than 50 feet (ft) below ground surface (bgs).

The following site characteristics were determined in accordance with 19.15.29 New Mexico Administrative Code (NMAC):

- Shallowest depth to groundwater beneath the area affected by the release in ft bgs: Between 26 and 50 feet;
- Method used to determine the depth to groundwater: direct measurement;
- Distance to continuously flowing watercourse or any other significant watercourse: >5 miles;
- Distance to lakebed, sinkhole, or playa lake: Between 0.50 and 1 mile;
- Distance to occupied permanent residence, school, hospital, institution, or church: Between 1 and 5 miles;

- Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes: Between 1 and 5 miles;
- Distance to any other fresh water well or spring: Between 0.50 and 1 mile;
- Distance to incorporated municipal boundaries or a defined municipal fresh water well field: Between 1 and 5 miles;
- Distance to wetland: Between 0.50 and 1 mile;
- Distance to subsurface mine: >5 miles;
- Distance to (non-karst) unstable area: >5 miles;
- Categorize the risk of this well/site being in a karst geology: Low;
- Distance to a 100-year floodplain: Between 1 and 5 miles; and
- Did the release impact areas not on an exploration, development, production, or storage site? No

4 NMAC Regulatory Criteria

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for reclamation activities within the first 4 feet of soil and within soil greater than 4 feet bgs due to depth to groundwater being verified less than 50 ft bgs onsite.

Constituent	Limit (mg/kg)
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Oil Range Organics (ORO)	100 mg/kg
Chloride	600 mg/kg

5 Site Assessment Activities

In February 2021, and subsequently in March 2023, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of fourteen (14) sample points (SB-1 through SB-14) were advanced to depths ranging from the surface to 4 feet bgs inside and surrounding the release area to evaluate the horizontal and vertical extents of the release. Soil sample locations are shown on **Figure 3**. A photo log is included in **Appendix C**. Soil samples were collected for chemical analyses, placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas.

The soil samples were analyzed for BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH by EPA Method 8015, and chloride by EPA method 300.0. Soil samples analyzed for BTEX were reported with concentrations ranging from 0.000539 J mg/kg (SB-12) to 0.00619 mg/kg (SB-4). Soil samples analyzed for TPH were reported with concentrations ranging from 16.0 J mg/kg (SB-2) to 1,340 mg/kg (SB-9). Soil

samples analyzed for chloride were reported with concentrations ranging from 1.66 J mg/kg (SB-8) to 1,220 mg/kg (SB-11).

Horizontal and vertical delineation of the area of concern was completed during assessment activities. Analytical data collected to date and field screening during proposed remediation activities will be utilized to guide remediation activities. Soil sample analytical results from assessment activities are summarized in **Table 1**. Laboratory reports for soil samples collected during the assessments, including analytical methods, results, and chain-of-custody documents, are included in **Appendix D.**

6 Proposed Work Plan

Based on the analytical data and the detected TPH and chloride concentrations in soil samples collected during site assessment activities, CEMC proposes to remediate the areas of concern via excavation illustrated in orange as shown in **Figure 3** and bolded in **Table 1**.

The proposed excavation area encompasses a surface area of approximately 3,100 square feet. An estimated 230 cubic yards of soil will be removed and transported to the Gandy Marley Landfill located in Roswell, New Mexico, which is listed as an NMOCD approved disposal facility.

In accordance with NMAC 19.15.29.12(D)(1)(b) CEMC proposes the following confirmation sampling plan to adhere with NMOCD requirements. Five-point composite confirmation soil samples will be collected from the excavation floor and sidewalls at 200 square foot intervals for analysis of BTEX by EPA Method 8260, TPH for GRO, DRO, and ORO by EPA Method 8015, and chloride by EPA Method 300.0. Lateral and vertical limits of the excavation will halt once confirmation sample analytical results are in accordance with NMAC 19.15.29.12(D)(1)(c).

Backfill material will be verified to be non-waste containing prior to backfilling the remediated area by obtaining analytical data from the backfill material supplier if available, or by collecting a five-point composite sample and analyzing for BTEX by EPA Method 8260, TPH for GRO, DRO, and ORO by EPA Method 8015, and chloride by EPA Method 300.0. Following completion of excavation activities and confirmation that the backfill material is non-waste containing, the areas will be backfilled with the clean material and graded to match the original surface conditions and drainage. Approximately 3,100 square feet of the area of concern located within the area of concern will be reclaimed to original condition and re-seeded following remediation activities.

The proposed remediation activities will be implemented within 90 days following approval of this work plan by the NMOCD. The anticipated schedule includes 30 days to prepare and schedule field work and confirm sub-contractors, 30 days to complete on-site remediation activities, and 30 days to prepare a soil remediation summary and closure request report.

7 Work Plan Approval Request

Upon completion of the above proposed soil remediation activities, a closure request report describing the soil remediation activities and a separate reclamation report will be submitted to the NMOCD for review. If you have any questions regarding this work plan or need additional information, please do not hesitate to contact Scott Foord at 281-725-7447 or Morgan Jordan at 281-644-9437.

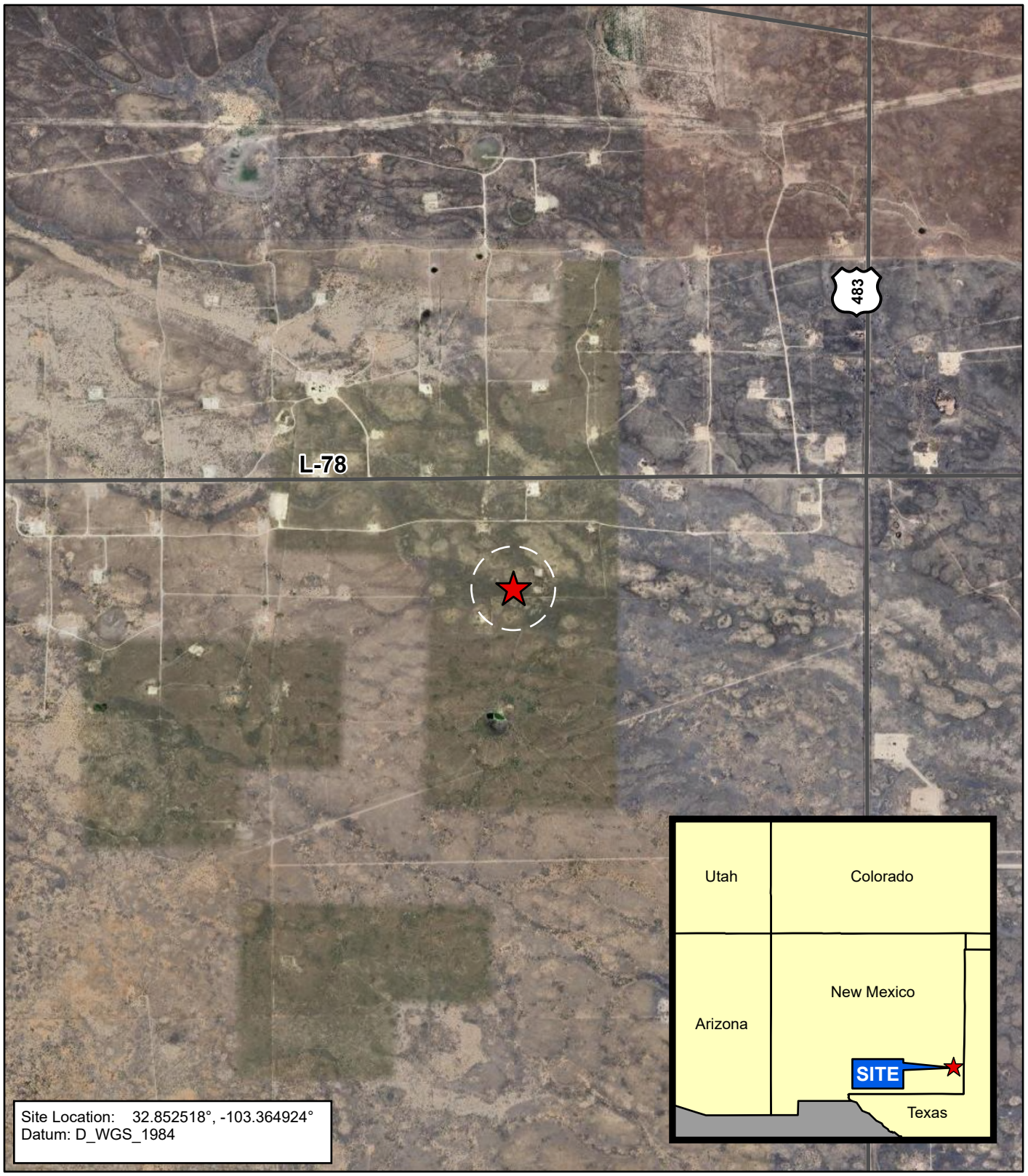
Tables

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 63
Lea County, New Mexico

Sample I.D.	Sample Depth (feet bgs)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH GRO + DRO	TPH MRO	Total TPH	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards			10	--	--	--	50	--	--	--	--	100	600
Restoration Requirements			10	--	--	--	50	--	--	--	--	100	600
SB-1	0-0.5'	02/10/21	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	17.9 J	<15.0	17.9 J	<15.0	17.9 J	2.08 J
SB-2	0-0.5'	02/10/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	19.0 J	45.2 J	64.2 J	17.2 J	81.4	5.26
	1'-2'	02/10/21	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	16.0 J	<15.0	16.0 J	<15.0	16.0 J	2.88 J
SB-3	0-0.5'	02/10/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	<14.9	412	412	146	***558***	14.4
	1'-1.5'	02/10/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	<15.0	124	124	73.5	***198***	6.43
SB-4	0-0.5'	02/11/21	<0.000388	<0.000459	<0.000569	<0.000347	<0.000347	15.3 J	557	572.3	212	***784***	8.97
	1'-1.5'	02/11/21	0.00489	0.00130 J	<0.000568	<0.000346	0.00619	18.1 J	807	825.1	349	***1,170***	21.0
SB-5	0-0.5'	02/11/21	<0.000389	<0.000460	<0.000570	<0.000348	<0.000348	18.0 J	<15.0	18.0 J	<15.0	18.0 J	4.47 J
SB-6	0-0.5'	02/11/21	<0.000389	<0.000460	<0.000570	<0.000348	<0.000348	25.0 J	<15.0	25.0 J	<15.0	25.0 J	***969***
	1'-1.75'	02/11/21	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	<15.0	<15.0	<15.0	<15.0	<15.0	***1,030***
SB-7	0-0.5'	02/11/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	16.8 J	47.9 J	64.7 J	16.8 J	81.5	7.38
	1'-1.75'	02/11/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	20.4 J	<15.0	20.4 J	<15.0	20.4 J	2.62 J
SB-8	0-0.5'	02/11/21	<0.000386	<0.000457	<0.000567	<0.000346	<0.000346	18.7 J	132	150.7 J	38.9 J	***190***	3.24 J
	1'-1.5'	02/11/21	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	<15.0	61.2	61.2	34.4 J	95.6	1.66 J
SB-8 (DUP)	0-0.5'	02/11/21	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	<15.0	175	175	43.3 J	***218***	3.66 J
SB-9	0-0.5'	02/11/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	<15.0	242	242	114	***356***	2.09 J
	1'-1.5'	02/11/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	<15.0	930	930	406	***1,340***	6.96
SB-10	0-0.5'	02/11/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	17.8 J	<15.0	17.8 J	<15.0	17.8 J	20.7
	1'-1.5'	02/11/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	18.0 J	<15.0	18.0 J	<15.0	18.0 J	6.67
SB-11	0-0.5'	03/24/23	<0.000388	<0.000460	<0.000570	<0.000347	<0.000347	35.9 J *-	<15.0 *-	35.9 J *-	<15.0	35.9 J	346
	2'	03/24/23	<0.000381	<0.000451	<0.000559	<0.000341	<0.000341	28.9 J *-	<15.0 *-	28.9 J *-	<15.0	28.9 J	***1,220***
	4'	03/24/23	<0.000387	<0.000459	<0.000568	<0.000346	<0.000346	27.4 J *-	<15.0 *-	27.4 J *-	<15.0	27.4 J	320
SB-12	0-0.5'	03/24/23	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	31.4 J *-	54.3 *-	85.7 J *-	<15.0	85.7	36.9
	2'	03/24/23	<0.000384	0.000539 J	<0.000564	<0.000343	0.000539 J	29.5 J *-	26.4 J *-	55.9 J *-	<15.0	55.9	56.9
	4'	03/24/23	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	17.8 J *-	20.2 J *-	38.0 J *-	<15.0	38.0 J	36.5
SB-13	0-0.5'	03/24/23	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	34.7 J *-	27.1 J *-	61.8 J *-	<15.0	61.8	82.5 F1
	2'	03/24/23	<0.000383	<0.000453	<0.000562	<0.000342	<0.000342	21.3 J *-	15.9 J *-	37.2 J *-	<15.0	37.2 J	65.1
	4'	03/24/23	<0.000384	<0.000455	<0.000564	<0.000343	<0.000343	34.2 J *-	<15.0 *-	34.2 J *-	<15.0	34.2 J	191
SB-14	0-0.5'	03/24/23	< 0.000384	<0.000455 F1	<0.000564 F1	<0.000343 F2 F1	<0.000343 F2 F1	34.1 J *-	<15.0 *-	34.1 J *-	<15.0	34.1 J	44.3
	2'	03/24/23	<0.000387	<0.000459	<0.000568	<0.000346	<0.000346	42.7 J *-	<15.0 *-	42.7 J *-	<15.0	42.7 J	67.2
	4'	03/24/23	<0.000389	<0.000461	<0.000571	<0.000347	<0.000347	31.0 J *-	<15.0 *-	31.0 J *-	<15.0	31.0 J	79.5

Legend:
BOLD = Analytes exceeding Restoration Requirement
J: Result is less than the Reporting Limit but greater than or equal to the MDL and the concentration is an approximate value
B: Compound was found in the blank and sample.
*-: Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) is outside acceptace limits, low biased.
F1: Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recovery exceeds control limits.
F2: MS/MSD Relative Percent Difference (RPD) exceeds control limits.
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/kg: Milligram per Kilogram
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code. Criteria based off of depth to groundwater of 51-100 feet.
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroluem Hydrocarbons Motor Oil Range Organics
TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
Total TPH: GRO + DRO + MRO
*Revised screening limit and restoration criteria within the first 4 feet below ground surface per Rule 19.15.29 effective August 14, 2018
DUP: Duplicate sample
Notes:
1. Chloride analyzed by United States Environmental Protection Agency Method 300
2. TPH analyzed by TPH by SW8015 Mod DRO/ORO Method
3. BTEX analyzed by USEPA Method 8021B
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures



Legend

Site Location

Credits: ESRI Online, Google Earth

0 2,000 4,000 Feet

GRAPHIC SCALE

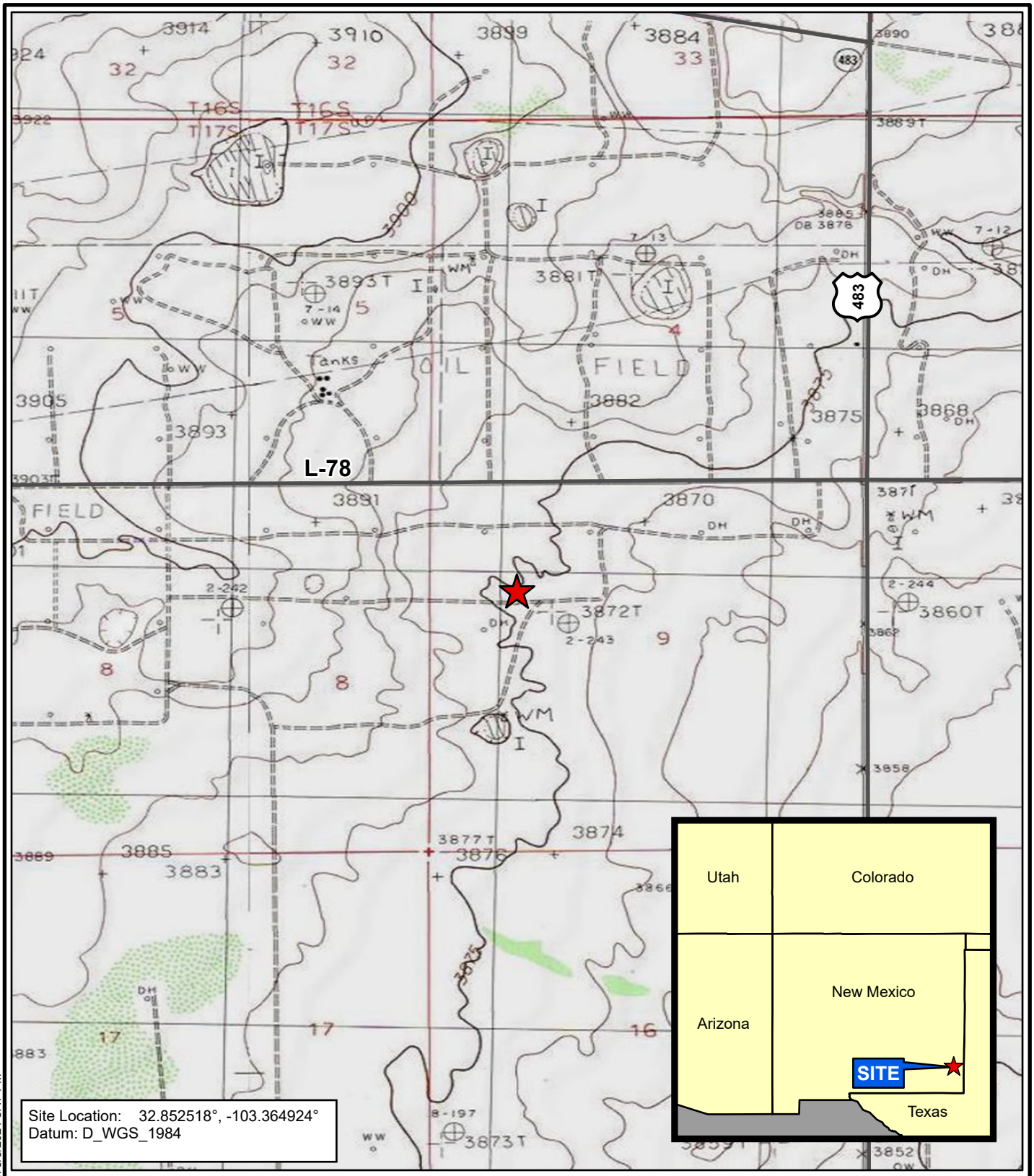
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

ARCADIS

FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_63_Pro\WLU_63.aprx 5/8/2024 8:47 PM



Legend

Site Location

Credits: ESRI Online, USGS 24,000 K Topo (Map Service)
Red Lake, New Mexico Quadrangle

0 2,000 4,000 Feet

GRAPHIC SCALE

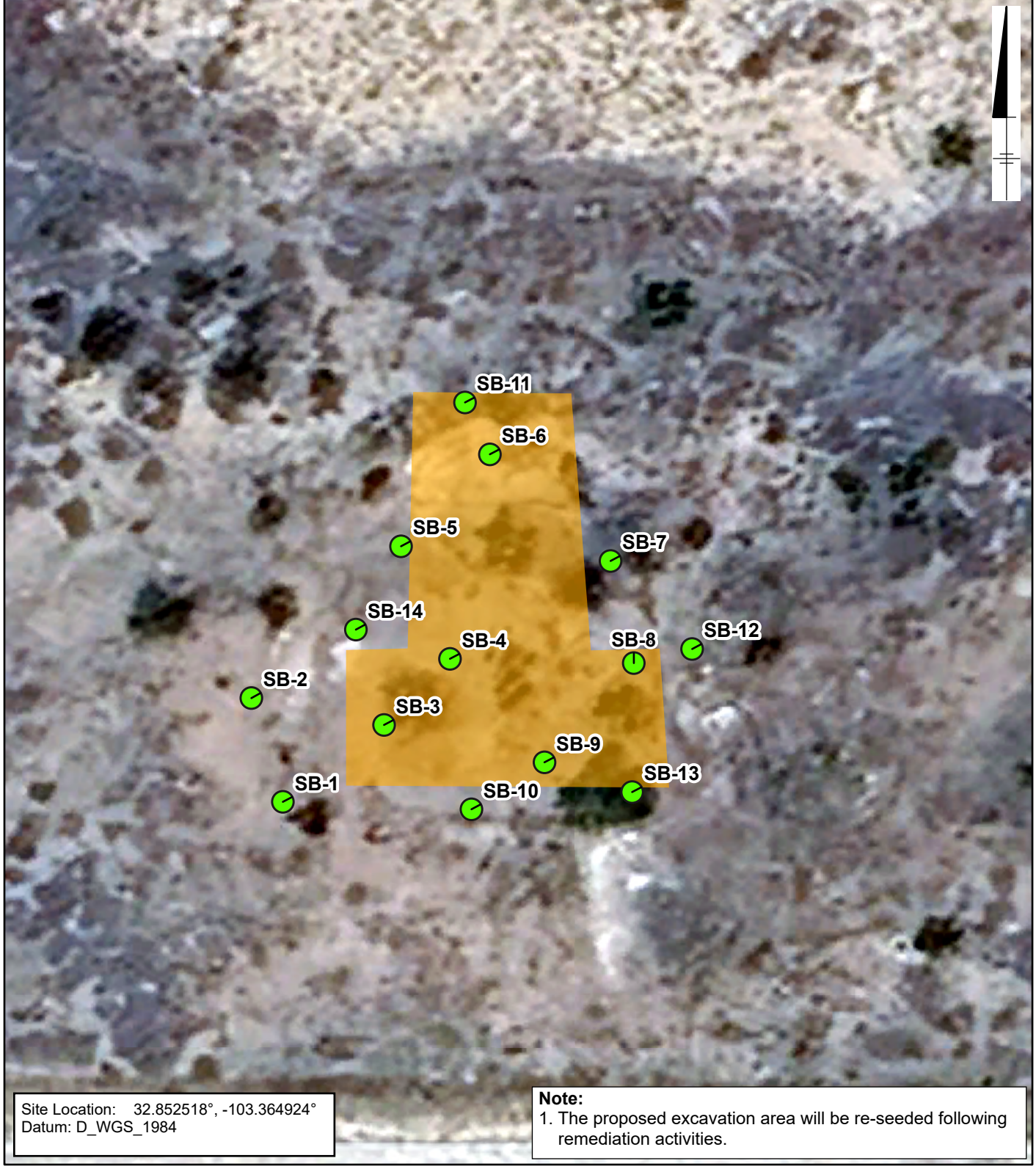
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_63_Proj\WLU_63.aprx 5/8/2024 8:47 PM



Site Location: 32.852518°, -103.364924°
Datum: D_WGS_1984

Note:
1. The proposed excavation area will be re-seeded following remediation activities.

Legend

- Previous Assessment Sample Location
- Proposed Excavation Area

0 30 60 Feet

GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #063
LEA COUNTY, NEW MEXICO

PROPOSED EXCAVATION AND SOIL SAMPLE LOCATION MAP

ARCADIS

FIGURE 3

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: amirm1212 ; Client (Project #)
T:_ENV\UpstreamWLU_63_Pro\WLU_63.aprx 7/29/2024 2:43 PM

Appendix A

Initial C-141 Form Incident # nPLM0830339670

RECEIVED
OCT 29 2008
HOBBS OCD

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, 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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

X Initial Report Final Report

Name of Company Chevron USA	Contact TEJAY SIMPSON
Address HCR 60 Box 423 Lovington, N.M. 88260	Telephone No. 505-396-4414 X 101
Facility Name WEST LOVINGTON UNIT #63	Facility Type GENERAL LEASE IIS No. 173609C

Surface Owner CHEVRON	Mineral Owner STATE OF NEW MEXICO	Lease No. B-4704 OGRID NO. 241333 API 30 025 26823

LOCATION OF RELEASE (Closest Chevron Operated Well)

Unit Letter	Section	Township	Range	Feet from the	South Line	Feet from the	West Line	County
D	9	17.0S	36E	1660 FNL		660 FWL		Lea

(Investigation Site) Latitude_32.8524__ Longitude_-103.36491

NATURE OF RELEASE

Type of Release UNKNOWN	Volume of Release UNKNOWN	Volume Recovered UNKNOWN
Source of Release UNKNOWN	Date and Hour of Occurrence UNKNOWN	Date and Hour of Discovery APRIL 2007
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. UNKNOWN	

If a Watercourse was Impacted, Describe Fully.*Chloride, total Xylenes, Toluene and Benzene impact to groundwater

Describe Cause of Problem and Remedial Action Taken.* Soil boring investigations conducted in April 2007 at site No. 173609C located adjacent to and outside the Unit Boundary of the West Lovington Unit found evidence of ground water impact. The initial investigation of two separate bore holes indicates the presence of chlorides, BTEX and various hydrocarbon chains at varying concentrations sufficient to require further investigation. The origin, source, date of occurrence or responsible party for the impact is undetermined.

Verbal notification of potential groundwater impact was made to Chris Williams at the local NMOCD District office February 1, 2008. Since the date, time and source of the impacting event is not known, it is assumed that the event was not reported at the time of occurrence.

Describe Area Affected and Cleanup Action Taken.*

Ground water impact in remote low activity oil production and ranching location. The nearest know active livestock water supply well is located approximately one mile north of the investigation site. Water gradient flow is believed to be southeast.

A work plan is being developed to further investigate the potential source of the impact and delineate the area of groundwater impact above standards.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: TEJAY SIMPSON	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: OPERATIONS SUPERVISOR	Approval Date: 10.29.08 Expiration Date: 12.1.08
E-mail Address tsimpson@chevron.com	Conditions of Approval: SUBMIT DETAILED REPORT OUTLINING REASON FOR INITIAL INVESTIGATION & PLAN OF ACTION BY 12.1.08
Date: March 17, 2008 Phone: 396-4414 X 101	Attached ☐ IRP# 1993

* Attach Additional Sheets If Necessary

Appendix B

NMOCD Correspondence

From: Barnhill, Amy <ABarnhill@chevron.com>
Sent: Monday, January 15, 2024 11:12 AM
To: Michelson, Jason C
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 295341

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Wednesday, January 10, 2024 4:32 PM
To: Barnhill, Amy <ABarnhill@chevron.com>
Subject: [**EXTERNAL**] The Oil Conservation Division (OCD) has approved the application, Application ID: 295341

To whom it may concern (c/o Amy Barnhill for CHEVRON U S A INC),

The OCD has approved the submitted *Ground Water Abatement* (GROUND WATER ABATEMENT), for incident ID (n#) nPLM0830339670,
with the following conditions:

- **Received for the record**

The signed GROUND WATER ABATEMENT can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Michael Buchanan
Environmental Specialist
505-490-0798
Michael.Buchanan@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Appendix C

Photographic Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
1	02/10/2021

Direction Photo Taken:

Facing east

Description:

West of middle well

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
2	02/10/2021

Direction Photo Taken:

Facing south

Description:

North of middle well

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
3	02/10/2021

Direction Photo Taken:

Facing west

Description:

West of middle well

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
4	02/10/2021

Direction Photo Taken:

Facing north

Description:

100’ north of pipeline between south and middle wells

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
5	02/10/2021

Direction Photo Taken:

Facing north

Description:

15’ south west of middle well

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
6	02/10/2021

Direction Photo Taken:

Facing north

Description:

South of site

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
7	02/10/2021

Direction Photo Taken:

Facing east

Description:

West of site

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
8	02/10/2021

Direction Photo Taken:

Facing north

Description:

Monitor wells found around site.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 63	Lea County, NM	nPLM0830339670

Photo No.	Date:
9	02/10/2021

Direction Photo Taken:

West

Description:

East of site

Appendix D

Laboratory Analytical Reports

eurofins | Environment Testing Xenco

Analytical Report 688220

for

Arcadis U.S., Inc

Project Manager: Morgan Jordan

WLU 63

30064882-0002B

02.22.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

02.22.2021

Project Manager: **Morgan Jordan**
Arcadis U.S., Inc
1717 W 6th Street, Suite 210
Austin, TX 78703

Reference: Eurofins Xenco, LLC Report No(s): **688220**
WLU 63
Project Address:

Morgan Jordan:

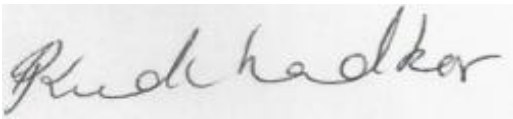
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 688220. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 688220 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Sachin Kudchadkar
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Sample Cross Reference 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1-S-0-.5-210210	S	02.10.2021 14:48		688220-001
SB-2-S-0-.5-210210	S	02.10.2021 14:54		688220-002
SB-2-S-1-.2-210210	S	02.10.2021 14:58		688220-003
SB-3-S-0-.5-210210	S	02.10.2021 15:13		688220-004
SB-3-S-1-1.5-210210	S	02.10.2021 15:17		688220-005

CASE NARRATIVE

eurofins | Environment Testing Xenco

Client Name: Arcadis U.S., Inc

Project Name: WLU 63

Project ID: *30064882-0002B*
Work Order Number(s): *688220*

Report Date: *02.22.2021*
Date Received: *02.12.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3151035 BTEX by EPA 8021B

Lab Sample ID 688220-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 688220-001.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Benzene, Ethylbenzene, m,p-Xylenes Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 688220-001

Batch: LBA-3151056 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; Samples affected are: 688220-002 S,688220-002 SD.

Lab Sample ID 688220-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 688220-002, -003, -004, -005.
The Laboratory Control Sample for m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-1-S-0-.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-001 Date Collected: 02.10.2021 14:48

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.17.2021 11:50 % Moisture:

Seq Number: 3151048 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2.08**	5.00	0.858	mg/kg	02.17.2021 13:32	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.12.2021 12:00 % Moisture:

Seq Number: 3151067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**17.9**	49.9	15.0	mg/kg	02.17.2021 18:11	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	49.9	15.0	mg/kg	02.17.2021 18:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	02.17.2021 18:11	U	1
Total TPH	PHC635	**17.9**	49.9	15.0	mg/kg	02.17.2021 18:11	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	02.17.2021 18:11	
o-Terphenyl	84-15-1	104	%	70-130	02.17.2021 18:11	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-1-S-0-.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-001 Date Collected: 02.10.2021 14:48

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.17.2021 14:00 % Moisture:

Seq Number: 3151035 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000386	0.00200	0.000386	mg/kg	02.18.2021 03:29	UXF	1
Toluene	108-88-3	<0.000457	0.00200	0.000457	mg/kg	02.18.2021 03:29	UX	1
Ethylbenzene	100-41-4	<0.000566	0.00200	0.000566	mg/kg	02.18.2021 03:29	UXF	1
m,p-Xylenes	179601-23-1	<0.00102	0.00401	0.00102	mg/kg	02.18.2021 03:29	UXF	1
o-Xylene	95-47-6	<0.000345	0.00200	0.000345	mg/kg	02.18.2021 03:29	UX	1
Total Xylenes	1330-20-7	<0.000345	0.00200	0.000345	mg/kg	02.18.2021 03:29	U	1
Total BTEX		<0.000345	0.00200	0.000345	mg/kg	02.18.2021 03:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	02.18.2021 03:29	
1,4-Difluorobenzene	540-36-3	97	%	70-130	02.18.2021 03:29	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-2-S-0-.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-002 Date Collected: 02.10.2021 14:54

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.17.2021 11:50 % Moisture:

Seq Number: 3151048 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.26**	4.99	0.857	mg/kg	02.17.2021 13:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.12.2021 12:00 % Moisture:

Seq Number: 3151067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**19.0**	49.9	15.0	mg/kg	02.17.2021 18:32	J	1
Diesel Range Organics (DRO)	C10C28DRO	**45.2**	49.9	15.0	mg/kg	02.17.2021 18:32	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**17.2**	49.9	15.0	mg/kg	02.17.2021 18:32	J	1
Total TPH	PHC635	**81.4**	49.9	15.0	mg/kg	02.17.2021 18:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	02.17.2021 18:32	
o-Terphenyl	84-15-1	106	%	70-130	02.17.2021 18:32	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id:	**SB-2-S-0-.5-210210**	Matrix:	Soil	Date Received:	02.12.2021 08:45
Lab Sample Id:	688220-002	Date Collected:	02.10.2021 14:54		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	02.17.2021 15:00	% Moisture:	
Seq Number:	3151056			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	02.17.2021 18:34	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	02.17.2021 18:34	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	02.17.2021 18:34	UX	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	02.17.2021 18:34	UX	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 18:34	UX	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 18:34	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	02.17.2021 18:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	02.17.2021 18:34	
4-Bromofluorobenzene	460-00-4	129	%	70-130	02.17.2021 18:34	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-2-S-1-.2-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-003 Date Collected: 02.10.2021 14:58

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.17.2021 11:50 % Moisture:

Seq Number: 3151048 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2.88**	4.95	0.850	mg/kg	02.17.2021 13:54	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.12.2021 12:00 % Moisture:

Seq Number: 3151067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**16.0**	50.0	15.0	mg/kg	02.17.2021 18:54	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.17.2021 18:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.17.2021 18:54	U	1
Total TPH	PHC635	**16.0**	50.0	15.0	mg/kg	02.17.2021 18:54	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	02.17.2021 18:54	
o-Terphenyl	84-15-1	100	%	70-130	02.17.2021 18:54	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-2-S-1-.2-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-003 Date Collected: 02.10.2021 14:58

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: MNR

Analyst: MNR Date Prep: 02.17.2021 15:00 % Moisture:

Seq Number: 3151056 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.17.2021 18:59	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	02.17.2021 18:59	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	02.17.2021 18:59	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.17.2021 18:59	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	02.17.2021 18:59	U	1
Total Xylenes	1330-20-7	<0.000343	0.00199	0.000343	mg/kg	02.17.2021 18:59	U	1
Total BTEX		<0.000343	0.00199	0.000343	mg/kg	02.17.2021 18:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	02.17.2021 18:59	
4-Bromofluorobenzene	460-00-4	122	%	70-130	02.17.2021 18:59	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-3-S-0-.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-004 Date Collected: 02.10.2021 15:13

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.17.2021 11:50 % Moisture:

Seq Number: 3151048 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.4**	5.02	0.862	mg/kg	02.17.2021 14:10		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.12.2021 12:00 % Moisture:

Seq Number: 3151067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	49.8	14.9	mg/kg	02.18.2021 08:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**412**	49.8	14.9	mg/kg	02.18.2021 08:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**146**	49.8	14.9	mg/kg	02.18.2021 08:03		1
Total TPH	PHC635	**558**	49.8	14.9	mg/kg	02.18.2021 08:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	02.18.2021 08:03	
o-Terphenyl	84-15-1	108	%	70-130	02.18.2021 08:03	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-3-S-0-.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-004 Date Collected: 02.10.2021 15:13

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: MNR

Analyst: MNR Date Prep: 02.17.2021 15:00 % Moisture:

Seq Number: 3151056 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	02.17.2021 19:25	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	02.17.2021 19:25	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	02.17.2021 19:25	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	02.17.2021 19:25	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 19:25	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 19:25	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	02.17.2021 19:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	02.17.2021 19:25	
1,4-Difluorobenzene	540-36-3	118	%	70-130	02.17.2021 19:25	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-3-S-1-1.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-005 Date Collected: 02.10.2021 15:17

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.17.2021 11:50 % Moisture:

Seq Number: 3151048 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.43**	5.04	0.865	mg/kg	02.17.2021 14:15		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.12.2021 12:00 % Moisture:

Seq Number: 3151067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.18.2021 08:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**124**	50.0	15.0	mg/kg	02.18.2021 08:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**73.5**	50.0	15.0	mg/kg	02.18.2021 08:24		1
Total TPH	PHC635	**198**	50.0	15.0	mg/kg	02.18.2021 08:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	02.18.2021 08:24	
o-Terphenyl	84-15-1	101	%	70-130	02.18.2021 08:24	

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Certificate of Analytical Results 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-3-S-1-1.5-210210** Matrix: Soil Date Received:02.12.2021 08:45

Lab Sample Id: 688220-005 Date Collected: 02.10.2021 15:17

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: MNR

Analyst: MNR Date Prep: 02.17.2021 15:00 % Moisture:

Seq Number: 3151056 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.17.2021 19:51	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	02.17.2021 19:51	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	02.17.2021 19:51	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.17.2021 19:51	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	02.17.2021 19:51	U	1
Total Xylenes	1330-20-7	<0.000342	0.00199	0.000342	mg/kg	02.17.2021 19:51	U	1
Total BTEX		<0.000342	0.00199	0.000342	mg/kg	02.17.2021 19:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	02.17.2021 19:51	
1,4-Difluorobenzene	540-36-3	118	%	70-130	02.17.2021 19:51	

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Blank Summary 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **7721499-1-BLK** Matrix: SOLID

Lab Sample Id: **7721499-1-BLK**

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.17.2021 11:50

Seq Number: 3151048

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	02.17.2021 12:02	U	1

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Blank Summary 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **7721505-1-BLK** Matrix: SOLID

Lab Sample Id: **7721505-1-BLK**

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.12.2021 12:00

Seq Number: 3151067

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.17.2021 11:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.17.2021 11:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.17.2021 11:34	U	1

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Blank Summary 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **7721507-1-BLK** Matrix: SOLID

Lab Sample Id: **7721507-1-BLK**

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.17.2021 14:00

Seq Number: 3151035

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.18.2021 03:07	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.18.2021 03:07	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.18.2021 03:07	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.18.2021 03:07	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.18.2021 03:07	U	1

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Blank Summary 688220

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **7721525-1-BLK** Matrix: SOLID

Lab Sample Id: **7721525-1-BLK**

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Tech: MNR

Analyst: MNR Date Prep: 02.17.2021 15:00

Seq Number: 3151056

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.17.2021 18:08	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.17.2021 18:08	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.17.2021 18:08	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.17.2021 18:08	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 18:08	U	1

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Form 2 - Surrogate Recoveries

Project Name: WLU 63

Report Date: 02222021

Work Orders : 688220 **Project ID:** 30064882-0002B

Lab Batch #: 3151035 **Sample:** 7721507-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.18.2021 01:08 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3151035 **Sample:** 7721507-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.18.2021 01:28 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0307	0.0300	102	70-130	

Lab Batch #: 3151035 **Sample:** 688220-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.18.2021 01:49 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3151035 **Sample:** 688220-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.18.2021 02:09 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	70-130	
4-Bromofluorobenzene	0.0295	0.0300	98	70-130	

Lab Batch #: 3151035 **Sample:** 7721507-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.18.2021 03:07 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	70-130	
4-Bromofluorobenzene	0.0294	0.0300	98	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 63

Report Date: 02222021

Work Orders : 688220 **Project ID:** 30064882-0002B

Lab Batch #: 3151056 **Sample:** 7721525-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 15:33 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

Lab Batch #: 3151056 **Sample:** 7721525-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 15:59 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3151056 **Sample:** 688220-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 16:24 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	70-130	
4-Bromofluorobenzene	0.0463	0.0300	154	70-130	**

Lab Batch #: 3151056 **Sample:** 688220-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 16:50 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	70-130	
4-Bromofluorobenzene	0.0550	0.0300	183	70-130	**

Lab Batch #: 3151056 **Sample:** 7721525-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 18:08 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	70-130	
4-Bromofluorobenzene	0.0251	0.0300	84	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 63

Report Date: 02222021

Work Orders : 688220 **Project ID:** 30064882-0002B

Lab Batch #: 3151067 **Sample:** 7721505-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 11:34 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-130	
o-Terphenyl	59.0	50.0	118	70-130	

Lab Batch #: 3151067 **Sample:** 7721505-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 11:55 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-130	
o-Terphenyl	61.4	50.0	123	70-130	

Lab Batch #: 3151067 **Sample:** 7721505-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 12:16 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	149	200	75	70-130	
o-Terphenyl	75.9	100	76	70-130	

Lab Batch #: 3151067 **Sample:** 688217-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 15:41 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	99.8	96	70-130	
o-Terphenyl	46.9	49.9	94	70-130	

Lab Batch #: 3151067 **Sample:** 688217-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 16:02 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.0	99.9	94	70-130	
o-Terphenyl	47.7	50.0	95	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

QC Summary 688220

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Arcadis U.S., Inc

WLU 63

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151048 — Matrix: Solid — Date Prep: 02.17.2021
MB Sample Id: 7721499-1-BLK — LCS Sample Id: 7721499-1-BKS — LCSD Sample Id: 7721499-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	242	97	244	98	90-110	1	20	mg/kg	02.17.2021 12:07	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151048 — Matrix: Soil — Date Prep: 02.17.2021
Parent Sample Id: 688217-005 — MS Sample Id: 688217-005 S — MSD Sample Id: 688217-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1030	253	1240	83	1260	91	90-110	2	20	mg/kg	02.17.2021 12:23	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151048 — Matrix: Soil — Date Prep: 02.17.2021
Parent Sample Id: 688220-001 — MS Sample Id: 688220-001 S — MSD Sample Id: 688220-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.08	250	252	100	278	110	90-110	10	20	mg/kg	02.17.2021 13:38	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3151067 — Matrix: Solid — Date Prep: 02.12.2021
MB Sample Id: 7721505-1-BLK — LCS Sample Id: 7721505-1-BKS — LCSD Sample Id: 7721505-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1150	115	1180	118	70-130	3	20	mg/kg	02.17.2021 11:55	
Diesel Range Organics (DRO)	<15.0	1000	1080	108	1150	115	70-130	6	20	mg/kg	02.17.2021 11:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		118		75		70-130	%	02.17.2021 11:55
o-Terphenyl	118		123		76		70-130	%	02.17.2021 11:55

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3151067 — Matrix: Solid — Date Prep: 02.12.2021
MB Sample Id: 7721505-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	02.17.2021 11:34	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 688220

Arcadis U.S., Inc

WLU 63

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3151067 Matrix: Soil Date Prep: 02.12.2021
Parent Sample Id: 688217-005 MS Sample Id: 688217-005 S MSD Sample Id: 688217-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	1060	106	1060	106	70-130	0	20	mg/kg	02.17.2021 15:41	
Diesel Range Organics (DRO)	<15.0	998	924	93	917	92	70-130	1	20	mg/kg	02.17.2021 15:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		94		70-130	%	02.17.2021 15:41
o-Terphenyl	94		95		70-130	%	02.17.2021 15:41

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151035 Matrix: Solid Date Prep: 02.17.2021
MB Sample Id: 7721507-1-BLK LCS Sample Id: 7721507-1-BKS LCSD Sample Id: 7721507-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0743	74	0.0971	97	70-130	27	35	mg/kg	02.18.2021 01:08	
Toluene	<0.000456	0.100	0.0737	74	0.0917	92	70-130	22	35	mg/kg	02.18.2021 01:08	
Ethylbenzene	<0.000565	0.100	0.0825	83	0.0976	98	70-130	17	35	mg/kg	02.18.2021 01:08	
m,p-Xylenes	<0.00101	0.200	0.164	82	0.195	98	70-130	17	35	mg/kg	02.18.2021 01:08	
o-Xylene	<0.000344	0.100	0.0847	85	0.0986	99	70-130	15	35	mg/kg	02.18.2021 01:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		100		103		70-130	%	02.18.2021 01:08
4-Bromofluorobenzene	98		97		102		70-130	%	02.18.2021 01:08

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151056 Matrix: Solid Date Prep: 02.17.2021
MB Sample Id: 7721525-1-BLK LCS Sample Id: 7721525-1-BKS LCSD Sample Id: 7721525-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.106	106	0.0962	96	70-130	10	35	mg/kg	02.17.2021 15:33	
Toluene	<0.000456	0.100	0.110	110	0.0977	98	70-130	12	35	mg/kg	02.17.2021 15:33	
Ethylbenzene	<0.000565	0.100	0.116	116	0.103	103	70-130	12	35	mg/kg	02.17.2021 15:33	
m,p-Xylenes	<0.00101	0.200	0.227	114	0.201	101	70-130	12	35	mg/kg	02.17.2021 15:33	
o-Xylene	<0.000344	0.100	0.116	116	0.105	105	70-130	10	35	mg/kg	02.17.2021 15:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	80		118		113		70-130	%	02.17.2021 15:33
4-Bromofluorobenzene	84		112		108		70-130	%	02.17.2021 15:33

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 688220

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Arcadis U.S., Inc

WLU 63

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151035 Matrix: Soil Date Prep: 02.17.2021
Parent Sample Id: 688220-001 MS Sample Id: 688220-001 S MSD Sample Id: 688220-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000389	0.101	0.00129	1	0.000707	1	70-130	58	35	mg/kg	02.18.2021 01:49	XF
Toluene	<0.000460	0.101	0.00120	1	0.000889	1	70-130	30	35	mg/kg	02.18.2021 01:49	X
Ethylbenzene	<0.000570	0.101	0.00136	1	0.000778	1	70-130	54	35	mg/kg	02.18.2021 01:49	XF
m,p-Xylenes	<0.00102	0.202	0.00220	1	0.00133	1	70-130	49	35	mg/kg	02.18.2021 01:49	XF
o-Xylene	<0.000348	0.101	0.00184	2	0.00146	1	70-130	23	35	mg/kg	02.18.2021 01:49	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		70-130	%	02.18.2021 01:49
4-Bromofluorobenzene	99		98		70-130	%	02.18.2021 01:49

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151056 Matrix: Soil Date Prep: 02.17.2021
Parent Sample Id: 688220-002 MS Sample Id: 688220-002 S MSD Sample Id: 688220-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0787	79	0.0846	85	70-130	7	35	mg/kg	02.17.2021 16:24	
Toluene	<0.000455	0.0998	0.0765	77	0.0834	84	70-130	9	35	mg/kg	02.17.2021 16:24	
Ethylbenzene	<0.000564	0.0998	0.0511	51	0.0516	52	70-130	1	35	mg/kg	02.17.2021 16:24	X
m,p-Xylenes	<0.00101	0.200	0.102	51	0.0986	49	70-130	3	35	mg/kg	02.17.2021 16:24	X
o-Xylene	<0.000344	0.0998	0.0490	49	0.0518	52	70-130	6	35	mg/kg	02.17.2021 16:24	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		83		70-130	%	02.17.2021 16:24
4-Bromofluorobenzene	154	**	183	**	70-130	%	02.17.2021 16:24

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Eurofins Xenco
1211 W Florida Ave
Midland TX 79701
Phone 432-704-5440

Chain of Custody Record

6882220
6882217

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): Std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064882-0002B	Project #: 30064882-0002B			
Site: WLU 63	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-1-S-0-.5-210210	2/10/21	1448	G	Solid						1	
SB-2-S-0-.5-210210	"	1454	G	Solid						1	
SB-2-S-1-2-210210	"	1458	G	Solid						1	
SB-3-S-0-.5-210210	"	1513	G	Solid						1	
SB-3-S-1-1.5-210210	"	1517	G	Solid						1	
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

2/10/21

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		2/10/21 1600	Arcadis		2-10-21 1600	Arcadis
2	Carlos Grajeda	2-12-21 845	Arcadis		2/12/21 845	
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: -3.0/-3.5

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Arcadis U.S., Inc

Date/ Time Received: 02.12.2021 08.45.00 AM

Work Order #: 688220

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 02.12.2021
Brianna Teel

Checklist reviewed by: Sachin Kudchadkar Date: 02.12.2021
Sachin Kudchadkar

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Analytical Report 688217

for

Arcadis U.S., Inc

Project Manager: Morgan Jordan

WLU 63

30064882-0002B

02.22.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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02.22.2021

Project Manager: **Morgan Jordan**
Arcadis U.S., Inc
1717 W 6th Street, Suite 210
Austin, TX 78703

Reference: Eurofins Xenco, LLC Report No(s): **688217**
WLU 63
Project Address:

Morgan Jordan:

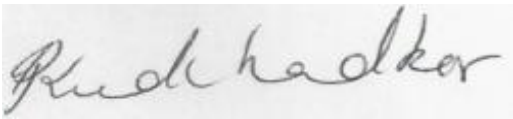
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 688217. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 688217 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Sachin Kudchadkar
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-4-S-0-.5-210211	S	02.11.2021 11:17		688217-001
SB-4-S-1-1.5-210211	S	02.11.2021 11:27		688217-002
SB-5-S-0-0.5-210211	S	02.11.2021 11:39		688217-003
SB-6-S-0-.5-210211	S	02.11.2021 11:53		688217-004
SB-6-S-1-1.75-210211	S	02.11.2021 11:56		688217-005
SB-7-S-0-.5-210211	S	02.11.2021 12:16		688217-006
SB-7-S-1-1.75-210211	S	02.11.2021 12:24		688217-007
SB-8-S-0-.5-210211	S	02.11.2021 12:34		688217-008
SB-8-SD-0-.5-210211	S	02.11.2021 00:00		688217-009
SB-8-S-1-1.5-210211	S	02.11.2021 12:44		688217-010
SB-9-S-0-.5-210211	S	02.11.2021 12:49		688217-011
SB-9-S-1-1.5-210211	S	02.11.2021 12:57		688217-012
SB-10-S-0-.5-210211	S	02.11.2021 13:05		688217-013
SB-10-S-1-1.5-210211	S	02.11.2021 13:40		688217-014

CASE NARRATIVE SUMMARY

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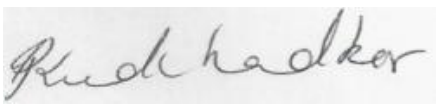
Client Name: ***Arcadis U.S., Inc***

Project Name: ***WLU 63***

Project ID:	*30064882-0002B*	*Report Date:*	*02.22.2021*
Work Order Number:	*688217*	*Date Received:*	*02.12.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.



Sachin Kudchadkar
Project Manager

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-4-S-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-001 Date Collected: 02.11.2021 11:17 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: SPC % Moist:

Seq Number: 3151012 Date Prep: 02.12.2021 16:33 Tech: SPC

Prep seq: 7721422

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**8.97**	4.95	0.850	mg/kg	02.13.2021 05:57		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**15.3**	49.9	15.0	mg/kg	02.18.2021 08:45	J	1
Diesel Range Organics (DRO)	C10C28DRO	**557**	49.9	15.0	mg/kg	02.18.2021 08:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**212**	49.9	15.0	mg/kg	02.18.2021 08:45		1
Total TPH	PHC635	**784**		15.0	mg/kg	02.18.2021 08:45		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	99	70 - 130	%		
o-Terphenyl	104	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000388	0.00202	0.000388	mg/kg	02.13.2021 22:50	U	1
Toluene	108-88-3	<0.000459	0.00202	0.000459	mg/kg	02.13.2021 22:50	U	1
Ethylbenzene	100-41-4	<0.000569	0.00202	0.000569	mg/kg	02.13.2021 22:50	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00403	0.00102	mg/kg	02.13.2021 22:50	U	1
o-Xylene	95-47-6	<0.000347	0.00202	0.000347	mg/kg	02.13.2021 22:50	U	1
Total Xylenes	1330-20-7	<0.000347		0.000347	mg/kg	02.13.2021 22:50	U	
Total BTEX		<0.000347		0.000347	mg/kg	02.13.2021 22:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-4-S-1-1.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-002 Date Collected: 02.11.2021 11:27 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: SPC % Moist:

Seq Number: 3151012 Date Prep: 02.12.2021 16:33 Tech: SPC

Prep seq: 7721422

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**21.0**	5.05	0.867	mg/kg	02.13.2021 06:03		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**18.1**	49.8	14.9	mg/kg	02.18.2021 09:06	J	1
Diesel Range Organics (DRO)	C10C28DRO	**807**	49.8	14.9	mg/kg	02.18.2021 09:06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**349**	49.8	14.9	mg/kg	02.18.2021 09:06		1
Total TPH	PHC635	**1170**		14.9	mg/kg	02.18.2021 09:06		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 130	%		
o-Terphenyl	109	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00489**	0.00201	0.000387	mg/kg	02.13.2021 23:11		1
Toluene	108-88-3	**0.00130**	0.00201	0.000458	mg/kg	02.13.2021 23:11	J	1
Ethylbenzene	100-41-4	<0.000568	0.00201	0.000568	mg/kg	02.13.2021 23:11	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00402	0.00102	mg/kg	02.13.2021 23:11	U	1
o-Xylene	95-47-6	<0.000346	0.00201	0.000346	mg/kg	02.13.2021 23:11	U	1
Total Xylenes	1330-20-7	<0.000346		0.000346	mg/kg	02.13.2021 23:11	U	
Total BTEX		**0.00619**		0.000346	mg/kg	02.13.2021 23:11		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	86	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-5-S-0-0.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-003 Date Collected: 02.11.2021 11:39 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: SPC % Moist:

Seq Number: 3151012 Date Prep: 02.12.2021 16:33 Tech: SPC

Prep seq: 7721422

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**4.47**	4.98	0.855	mg/kg	02.13.2021 06:08	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**18.0**	49.9	15.0	mg/kg	02.17.2021 16:23	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	49.9	15.0	mg/kg	02.17.2021 16:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	02.17.2021 16:23	U	1
Total TPH	PHC635	**18.0**		15.0	mg/kg	02.17.2021 16:23	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	105	70 - 130	%		
o-Terphenyl	121	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000389	0.00202	0.000389	mg/kg	02.13.2021 23:31	U	1
Toluene	108-88-3	<0.000460	0.00202	0.000460	mg/kg	02.13.2021 23:31	U	1
Ethylbenzene	100-41-4	<0.000570	0.00202	0.000570	mg/kg	02.13.2021 23:31	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00404	0.00102	mg/kg	02.13.2021 23:31	U	1
o-Xylene	95-47-6	<0.000348	0.00202	0.000348	mg/kg	02.13.2021 23:31	U	1
Total Xylenes	1330-20-7	<0.000348		0.000348	mg/kg	02.13.2021 23:31	U	
Total BTEX		<0.000348		0.000348	mg/kg	02.13.2021 23:31	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-6-S-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-004 Date Collected: 02.11.2021 11:53 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: SPC % Moist:

Seq Number: 3151012 Date Prep: 02.12.2021 16:33 Tech: SPC

Prep seq: 7721422

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**969**	5.00	0.858	mg/kg	02.13.2021 06:13		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**25.0**	50.0	15.0	mg/kg	02.17.2021 16:45	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.17.2021 16:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.17.2021 16:45	U	1
Total TPH	PHC635	**25.0**		15.0	mg/kg	02.17.2021 16:45	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 130	%		
o-Terphenyl	100	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000389	0.00202	0.000389	mg/kg	02.13.2021 23:52	U	1
Toluene	108-88-3	<0.000460	0.00202	0.000460	mg/kg	02.13.2021 23:52	U	1
Ethylbenzene	100-41-4	<0.000570	0.00202	0.000570	mg/kg	02.13.2021 23:52	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00404	0.00102	mg/kg	02.13.2021 23:52	U	1
o-Xylene	95-47-6	<0.000348	0.00202	0.000348	mg/kg	02.13.2021 23:52	U	1
Total Xylenes	1330-20-7	<0.000348		0.000348	mg/kg	02.13.2021 23:52	U	
Total BTEX		<0.000348		0.000348	mg/kg	02.13.2021 23:52	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-6-S-1-1.75-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-005 Date Collected: 02.11.2021 11:56 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1030**	5.05	0.867	mg/kg	02.17.2021 12:18	X	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.17.2021 15:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.17.2021 15:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.17.2021 15:20	U	1
Total TPH	PHC635	<15.0		15.0	mg/kg	02.17.2021 15:20	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 130	%		
o-Terphenyl	111	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.14.2021 00:12	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	02.14.2021 00:12	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	02.14.2021 00:12	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.14.2021 00:12	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	02.14.2021 00:12	U	1
Total Xylenes	1330-20-7	<0.000343		0.000343	mg/kg	02.14.2021 00:12	U	
Total BTEX		<0.000343		0.000343	mg/kg	02.14.2021 00:12	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-7-S-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-006 Date Collected: 02.11.2021 12:16 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**7.38**	4.98	0.855	mg/kg	02.17.2021 12:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**16.8**	49.9	15.0	mg/kg	02.17.2021 20:34	J	1
Diesel Range Organics (DRO)	C10C28DRO	**47.9**	49.9	15.0	mg/kg	02.17.2021 20:34	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**16.8**	49.9	15.0	mg/kg	02.17.2021 20:34	J	1
Total TPH	PHC635	**81.5**		15.0	mg/kg	02.17.2021 20:34		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 130	%		
o-Terphenyl	103	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.14.2021 00:33	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.14.2021 00:33	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.14.2021 00:33	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.14.2021 00:33	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.14.2021 00:33	U	1
Total Xylenes	1330-20-7	<0.000344		0.000344	mg/kg	02.14.2021 00:33	U	
Total BTEX		<0.000344		0.000344	mg/kg	02.14.2021 00:33	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	98	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-7-S-1-1.75-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-007 Date Collected: 02.11.2021 12:24 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2.62**	4.96	0.852	mg/kg	02.17.2021 12:39	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**20.4**	49.9	15.0	mg/kg	02.17.2021 17:06	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	49.9	15.0	mg/kg	02.17.2021 17:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	02.17.2021 17:06	U	1
Total TPH	PHC635	**20.4**		15.0	mg/kg	02.17.2021 17:06	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	91	70 - 130	%		
o-Terphenyl	105	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.14.2021 00:53	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	02.14.2021 00:53	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	02.14.2021 00:53	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.14.2021 00:53	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	02.14.2021 00:53	U	1
Total Xylenes	1330-20-7	<0.000342		0.000342	mg/kg	02.14.2021 00:53	U	
Total BTEX		<0.000342		0.000342	mg/kg	02.14.2021 00:53	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-8-S-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-008 Date Collected: 02.11.2021 12:34 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3.24**	5.03	0.864	mg/kg	02.17.2021 12:45	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**18.7**	50.0	15.0	mg/kg	02.17.2021 21:02	J	1
Diesel Range Organics (DRO)	C10C28DRO	**132**	50.0	15.0	mg/kg	02.17.2021 21:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**38.9**	50.0	15.0	mg/kg	02.17.2021 21:02	J	1
Total TPH	PHC635	**190**		15.0	mg/kg	02.17.2021 21:02		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	90	70 - 130	%		
o-Terphenyl	101	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000386	0.00201	0.000386	mg/kg	02.17.2021 20:17	U	1
Toluene	108-88-3	<0.000457	0.00201	0.000457	mg/kg	02.17.2021 20:17	U	1
Ethylbenzene	100-41-4	<0.000567	0.00201	0.000567	mg/kg	02.17.2021 20:17	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00402	0.00102	mg/kg	02.17.2021 20:17	U	1
o-Xylene	95-47-6	<0.000346	0.00201	0.000346	mg/kg	02.17.2021 20:17	U	1
Total Xylenes	1330-20-7	<0.000346		0.000346	mg/kg	02.17.2021 20:17	U	
Total BTEX		<0.000346		0.000346	mg/kg	02.17.2021 20:17	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	119	70 - 130	%		
4-Bromofluorobenzene	119	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-8-SD-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-009 Date Collected: 02.11.2021 00:00 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3.66**	4.95	0.850	mg/kg	02.17.2021 12:50	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.18.2021 08:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**175**	50.0	15.0	mg/kg	02.18.2021 08:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**43.3**	50.0	15.0	mg/kg	02.18.2021 08:03	J	1
Total TPH	PHC635	**218**		15.0	mg/kg	02.18.2021 08:03		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	75	70 - 130	%		
o-Terphenyl	89	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000386	0.00200	0.000386	mg/kg	02.17.2021 20:42	U	1
Toluene	108-88-3	<0.000457	0.00200	0.000457	mg/kg	02.17.2021 20:42	U	1
Ethylbenzene	100-41-4	<0.000566	0.00200	0.000566	mg/kg	02.17.2021 20:42	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00401	0.00102	mg/kg	02.17.2021 20:42	U	1
o-Xylene	95-47-6	<0.000345	0.00200	0.000345	mg/kg	02.17.2021 20:42	U	1
Total Xylenes	1330-20-7	<0.000345		0.000345	mg/kg	02.17.2021 20:42	U	
Total BTEX		<0.000345		0.000345	mg/kg	02.17.2021 20:42	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	124	70 - 130	%		
4-Bromofluorobenzene	132	70 - 130	%		**

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688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-8-S-1-1.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-010 Date Collected: 02.11.2021 12:44 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1.66**	4.97	0.853	mg/kg	02.17.2021 13:06	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	02.18.2021 08:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**61.2**	49.9	15.0	mg/kg	02.18.2021 08:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**34.4**	49.9	15.0	mg/kg	02.18.2021 08:24	J	1
Total TPH	PHC635	**95.6**		15.0	mg/kg	02.18.2021 08:24		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 130	%		
o-Terphenyl	111	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000386	0.00200	0.000386	mg/kg	02.17.2021 21:08	U	1
Toluene	108-88-3	<0.000457	0.00200	0.000457	mg/kg	02.17.2021 21:08	U	1
Ethylbenzene	100-41-4	<0.000566	0.00200	0.000566	mg/kg	02.17.2021 21:08	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00401	0.00102	mg/kg	02.17.2021 21:08	U	1
o-Xylene	95-47-6	<0.000345	0.00200	0.000345	mg/kg	02.17.2021 21:08	U	1
Total Xylenes	1330-20-7	<0.000345		0.000345	mg/kg	02.17.2021 21:08	U	
Total BTEX		<0.000345		0.000345	mg/kg	02.17.2021 21:08	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	114	70 - 130	%		
4-Bromofluorobenzene	123	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-9-S-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-011 Date Collected: 02.11.2021 12:49 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2.09**	5.02	0.862	mg/kg	02.17.2021 13:11	J	1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	02.18.2021 08:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	**242**	49.9	15.0	mg/kg	02.18.2021 08:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**114**	49.9	15.0	mg/kg	02.18.2021 08:45		1
Total TPH	PHC635	**356**		15.0	mg/kg	02.18.2021 08:45		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 130	%		
o-Terphenyl	93	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	02.17.2021 21:34	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	02.17.2021 21:34	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	02.17.2021 21:34	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	02.17.2021 21:34	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 21:34	U	1
Total Xylenes	1330-20-7	<0.000344		0.000344	mg/kg	02.17.2021 21:34	U	
Total BTEX		<0.000344		0.000344	mg/kg	02.17.2021 21:34	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	117	70 - 130	%		

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-9-S-1-1.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-012 Date Collected: 02.11.2021 12:57 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**6.96**	4.99	0.857	mg/kg	02.17.2021 13:17		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.18.2021 09:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	**930**	50.0	15.0	mg/kg	02.18.2021 09:06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**406**	50.0	15.0	mg/kg	02.18.2021 09:06		1
Total TPH	PHC635	**1340**		15.0	mg/kg	02.18.2021 09:06		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	83	70 - 130	%		
o-Terphenyl	92	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	02.17.2021 21:59	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	02.17.2021 21:59	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	02.17.2021 21:59	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	02.17.2021 21:59	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 21:59	U	1
Total Xylenes	1330-20-7	<0.000344		0.000344	mg/kg	02.17.2021 21:59	U	
Total BTEX		<0.000344		0.000344	mg/kg	02.17.2021 21:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	113	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

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688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-10-S-0-.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-013 Date Collected: 02.11.2021 13:05 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**20.7**	4.96	0.852	mg/kg	02.17.2021 13:22		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**17.8**	49.9	15.0	mg/kg	02.17.2021 17:28	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	49.9	15.0	mg/kg	02.17.2021 17:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	02.17.2021 17:28	U	1
Total TPH	PHC635	**17.8**		15.0	mg/kg	02.17.2021 17:28	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 130	%		
o-Terphenyl	99	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.18.2021 10:11	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.18.2021 10:11	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.18.2021 10:11	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.18.2021 10:11	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.18.2021 10:11	U	1
Total Xylenes	1330-20-7	<0.000344		0.000344	mg/kg	02.18.2021 10:11	U	
Total BTEX		<0.000344		0.000344	mg/kg	02.18.2021 10:11	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	81	70 - 130	%		
4-Bromofluorobenzene	139	70 - 130	%		**

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **SB-10-S-1-1.5-210211** Matrix: Soil Sample Depth:

Lab Sample Id: 688217-014 Date Collected: 02.11.2021 13:40 Date Received: 02.12.2021 08:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**6.67**	5.02	0.862	mg/kg	02.17.2021 13:27		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**18.0**	50.0	15.0	mg/kg	02.17.2021 17:50	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.17.2021 17:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.17.2021 17:50	U	1
Total TPH	PHC635	**18.0**		15.0	mg/kg	02.17.2021 17:50	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	83	70 - 130	%		
o-Terphenyl	93	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.18.2021 13:08	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	02.18.2021 13:08	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	02.18.2021 13:08	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.18.2021 13:08	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	02.18.2021 13:08	U	1
Total Xylenes	1330-20-7	<0.000342		0.000342	mg/kg	02.18.2021 13:08	U	
Total BTEX		<0.000342		0.000342	mg/kg	02.18.2021 13:08	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	80	70 - 130	%		
4-Bromofluorobenzene	137	70 - 130	%		**

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **7721422-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7721422-1-BLK Date Collected: Date Received:

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: SPC % Moist:

Seq Number: 3151012 Date Prep: 02.12.2021 16:33 Tech: SPC

Prep seq: 7721422

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	02.13.2021 03:34	U	1

Sample Id: **7721491-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7721491-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: KTL % Moist:

Seq Number: 3151003 Date Prep: 02.12.2021 16:45 Tech: KTL

Prep seq: 7721491

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.13.2021 17:01	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.13.2021 17:01	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.13.2021 17:01	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.13.2021 17:01	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.13.2021 17:01	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

Sample Id: **7721499-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7721499-1-BLK Date Collected: Date Received:

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: CHE % Moist:

Seq Number: 3151048 Date Prep: 02.17.2021 11:50 Tech: CHE

Prep seq: 7721499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	02.17.2021 12:02	U	1

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Certificate of Analytical Results

688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Sample Id: **7721505-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7721505-1-BLK Date Collected: Date Received:

Analytical Method: TPH By SW8015 Mod Prep Method: 8015

Analyst: ARM % Moist:

Seq Number: 3151067 Date Prep: 02.12.2021 12:00 Tech: ARM

Prep seq: 7721505

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.17.2021 11:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.17.2021 11:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.17.2021 11:34	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	102	70 - 130	%		
o-Terphenyl	118	70 - 130	%		

Sample Id: **7721525-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7721525-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A

Analyst: MNR % Moist:

Seq Number: 3151056 Date Prep: 02.17.2021 15:00 Tech: MNR

Prep seq: 7721525

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.17.2021 18:08	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.17.2021 18:08	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.17.2021 18:08	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.17.2021 18:08	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.17.2021 18:08	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	80	70 - 130	%		
4-Bromofluorobenzene	84	70 - 130	%		

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CHRONOLOGY OF HOLDING TIMES

Analytical Method : Chloride by EPA 300
Work Order #: **688217**
Date Received: 02.12.2021

Client : Arcadis U.S., Inc
Project ID: 30064882-0002B

Field Sample ID	Lab Sample ID	Date Collected	Date Extracted	Expiration Date Extraction	Date Analyzed	Expiration Date Analysis	Q
SB-4-S-0-.5-210211	688217-001	02.11.2021	02.12.2021	03.11.2021	02.13.2021	03.12.2021	
SB-4-S-1-1.5-210211	688217-002	02.11.2021	02.12.2021	03.11.2021	02.13.2021	03.12.2021	
SB-5-S-0-0.5-210211	688217-003	02.11.2021	02.12.2021	03.11.2021	02.13.2021	03.12.2021	
SB-6-S-0-.5-210211	688217-004	02.11.2021	02.12.2021	03.11.2021	02.13.2021	03.12.2021	
SB-6-S-1-1.75-210211	688217-005	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-7-S-0-.5-210211	688217-006	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-7-S-1-1.75-210211	688217-007	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-8-S-0-.5-210211	688217-008	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-8-SD-0-.5-210211	688217-009	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-8-S-1-1.5-210211	688217-010	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-9-S-0-.5-210211	688217-011	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-9-S-1-1.5-210211	688217-012	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-10-S-0-.5-210211	688217-013	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	
SB-10-S-1-1.5-210211	688217-014	02.11.2021	02.17.2021	03.11.2021	02.17.2021	03.17.2021	

F = These samples were analyzed outside the recommended holding time.

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CHRONOLOGY OF HOLDING TIMES

Analytical Method : TPH By SW8015 Mod
Work Order #: **688217**
Date Received: 02.12.2021

Client : Arcadis U.S., Inc
Project ID: 30064882-0002B

Field Sample ID	Lab Sample ID	Date Collected	Date Extracted	Expiration Date Extraction	Date Analyzed	Expiration Date Analysis	Q
SB-4-S-0-.5-210211	688217-001	02.11.2021	02.12.2021	02.25.2021	02.18.2021	02.26.2021	
SB-4-S-1-1.5-210211	688217-002	02.11.2021	02.12.2021	02.25.2021	02.18.2021	02.26.2021	
SB-5-S-0-0.5-210211	688217-003	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-6-S-0-.5-210211	688217-004	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-6-S-1-1.75-210211	688217-005	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-7-S-0-.5-210211	688217-006	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-7-S-1-1.75-210211	688217-007	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-8-S-0-.5-210211	688217-008	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-8-SD-0-.5-210211	688217-009	02.11.2021	02.12.2021	02.25.2021	02.18.2021	02.26.2021	
SB-8-S-1-1.5-210211	688217-010	02.11.2021	02.12.2021	02.25.2021	02.18.2021	02.26.2021	
SB-9-S-0-.5-210211	688217-011	02.11.2021	02.12.2021	02.25.2021	02.18.2021	02.26.2021	
SB-9-S-1-1.5-210211	688217-012	02.11.2021	02.12.2021	02.25.2021	02.18.2021	02.26.2021	
SB-10-S-0-.5-210211	688217-013	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	
SB-10-S-1-1.5-210211	688217-014	02.11.2021	02.12.2021	02.25.2021	02.17.2021	02.26.2021	

F = These samples were analyzed outside the recommended holding time.

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CHRONOLOGY OF HOLDING TIMES

Analytical Method : BTEX by EPA 8021B
Work Order #: **688217**
Date Received: 02.12.2021

Client : Arcadis U.S., Inc
Project ID: 30064882-0002B

Field Sample ID	Lab Sample ID	Date Collected	Date Extracted	Expiration Date Extraction	Date Analyzed	Expiration Date Analysis	Q
SB-4-S-0-.5-210211	688217-001	02.11.2021			02.13.2021	02.25.2021	
SB-4-S-1-1.5-210211	688217-002	02.11.2021			02.13.2021	02.25.2021	
SB-5-S-0-0.5-210211	688217-003	02.11.2021			02.13.2021	02.25.2021	
SB-6-S-0-.5-210211	688217-004	02.11.2021			02.13.2021	02.25.2021	
SB-6-S-1-1.75-210211	688217-005	02.11.2021			02.14.2021	02.25.2021	
SB-7-S-0-.5-210211	688217-006	02.11.2021			02.14.2021	02.25.2021	
SB-7-S-1-1.75-210211	688217-007	02.11.2021			02.14.2021	02.25.2021	
SB-8-S-0-.5-210211	688217-008	02.11.2021			02.17.2021	02.25.2021	
SB-8-SD-0-.5-210211	688217-009	02.11.2021			02.17.2021	02.25.2021	
SB-8-S-1-1.5-210211	688217-010	02.11.2021			02.17.2021	02.25.2021	
SB-9-S-0-.5-210211	688217-011	02.11.2021			02.17.2021	02.25.2021	
SB-9-S-1-1.5-210211	688217-012	02.11.2021			02.17.2021	02.25.2021	
SB-10-S-0-.5-210211	688217-013	02.11.2021			02.18.2021	02.25.2021	
SB-10-S-1-1.5-210211	688217-014	02.11.2021			02.18.2021	02.25.2021	

F = These samples were analyzed outside the recommended holding time.

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Analytical Log

Analytical Method:	BTEX by EPA 8021B	Batch #:	3151003
Project Name:	WLU 63	Project ID:	30064882-0002B
Client Name:	Arcadis U.S., Inc	WO Number:	688217

Client Sample Id	Lab Sample Id	QC Types
SB-4-S-0-.5-210211	688217-001	SMP
SB-4-S-1-1.5-210211	688217-002	SMP
SB-5-S-0-0.5-210211	688217-003	SMP
SB-6-S-0-.5-210211	688217-004	SMP
SB-6-S-1-1.75-210211	688217-005	SMP
SB-7-S-0-.5-210211	688217-006	SMP
SB-7-S-1-1.75-210211	688217-007	SMP
	688138-002 S	MS
	688138-002 SD	MSD
	7721491-1-BKS	BKS
	7721491-1-BLK	BLK
	7721491-1-BSD	BSD

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Analytical Log

Analytical Method:	Chloride by EPA 300	Batch #:	3151012
Project Name:	WLU 63	Project ID:	30064882-0002B
Client Name:	Arcadis U.S., Inc	WO Number:	688217

Client Sample Id	Lab Sample Id	QC Types
SB-4-S-0-.5-210211	688217-001	SMP
SB-4-S-1-1.5-210211	688217-002	SMP
SB-5-S-0-0.5-210211	688217-003	SMP
SB-6-S-0-.5-210211	688217-004	SMP
	688132-019 S	MS
	688132-019 SD	MSD
	688132-029 S	MS
	688132-029 SD	MSD
	7721422-1-BKS	BKS
	7721422-1-BLK	BLK
	7721422-1-BSD	BSD

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Analytical Log

Analytical Method:	Chloride by EPA 300	Batch #:	3151048
Project Name:	WLU 63	Project ID:	30064882-0002B
Client Name:	Arcadis U.S., Inc	WO Number:	688217

Client Sample Id	Lab Sample Id	QC Types
SB-10-S-0-.5-210211	688217-013	SMP
SB-10-S-1-1.5-210211	688217-014	SMP
SB-6-S-1-1.75-210211	688217-005	SMP
SB-7-S-0-.5-210211	688217-006	SMP
SB-7-S-1-1.75-210211	688217-007	SMP
SB-8-S-0-.5-210211	688217-008	SMP
SB-8-S-1-1.5-210211	688217-010	SMP
SB-8-SD-0-.5-210211	688217-009	SMP
SB-9-S-0-.5-210211	688217-011	SMP
SB-9-S-1-1.5-210211	688217-012	SMP
	688217-005 S	MS
	688217-005 SD	MSD
	688220-001 S	MS
	688220-001 SD	MSD
	7721499-1-BKS	BKS
	7721499-1-BLK	BLK
	7721499-1-BSD	BSD

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Analytical Log

Analytical Method:	BTEX by EPA 8021B	Batch #:	3151056
Project Name:	WLU 63	Project ID:	30064882-0002B
Client Name:	Arcadis U.S., Inc	WO Number:	688217

Client Sample Id	Lab Sample Id	QC Types
SB-10-S-0-.5-210211	688217-013	SMP
SB-10-S-1-1.5-210211	688217-014	SMP
SB-8-S-0-.5-210211	688217-008	SMP
SB-8-S-1-1.5-210211	688217-010	SMP
SB-8-SD-0-.5-210211	688217-009	SMP
SB-9-S-0-.5-210211	688217-011	SMP
SB-9-S-1-1.5-210211	688217-012	SMP
	688220-002 S	MS
	688220-002 SD	MSD
	7721525-1-BKS	BKS
	7721525-1-BLK	BLK
	7721525-1-BSD	BSD

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Analytical Log

Analytical Method:	TPH By SW8015 Mod	Batch #:	3151067
Project Name:	WLU 63	Project ID:	30064882-0002B
Client Name:	Arcadis U.S., Inc	WO Number:	688217

Client Sample Id	Lab Sample Id	QC Types
SB-10-S-0-.5-210211	688217-013	SMP
SB-10-S-1-1.5-210211	688217-014	SMP
SB-4-S-0-.5-210211	688217-001	SMP
SB-4-S-1-1.5-210211	688217-002	SMP
SB-5-S-0-0.5-210211	688217-003	SMP
SB-6-S-0-.5-210211	688217-004	SMP
SB-6-S-1-1.75-210211	688217-005	SMP
SB-7-S-0-.5-210211	688217-006	SMP
SB-7-S-1-1.75-210211	688217-007	SMP
SB-8-S-0-.5-210211	688217-008	SMP
SB-8-S-1-1.5-210211	688217-010	SMP
SB-8-SD-0-.5-210211	688217-009	SMP
SB-9-S-0-.5-210211	688217-011	SMP
SB-9-S-1-1.5-210211	688217-012	SMP
	688217-005 S	MS
	688217-005 SD	MSD
	7721505-1-BKS	BKS
	7721505-1-BLK	BLK
	7721505-1-BSD	BSD

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Form 2 - Surrogate Recoveries

Project Name: WLU 63

Report Date: 02222021

Work Orders : 688217 **Project ID:** 30064882-0002B

Lab Batch #: 3151003 **Sample:** 7721491-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.13.2021 15:02 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0290	0.0300	97	70-130	

Lab Batch #: 3151003 **Sample:** 7721491-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.13.2021 15:22 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0287	0.0300	96	70-130	

Lab Batch #: 3151003 **Sample:** 688138-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.13.2021 15:42 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3151003 **Sample:** 688138-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.13.2021 16:03 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	70-130	
4-Bromofluorobenzene	0.0303	0.0300	101	70-130	

Lab Batch #: 3151003 **Sample:** 7721491-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.13.2021 17:01 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0300	0.0300	100	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 63

Report Date: 02222021

Work Orders : 688217 **Project ID:** 30064882-0002B

Lab Batch #: 3151056 **Sample:** 7721525-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 15:33 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

Lab Batch #: 3151056 **Sample:** 7721525-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 15:59 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3151056 **Sample:** 688220-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 16:24 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	70-130	
4-Bromofluorobenzene	0.0463	0.0300	154	70-130	**

Lab Batch #: 3151056 **Sample:** 688220-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 16:50 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	70-130	
4-Bromofluorobenzene	0.0550	0.0300	183	70-130	**

Lab Batch #: 3151056 **Sample:** 7721525-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 18:08 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	70-130	
4-Bromofluorobenzene	0.0251	0.0300	84	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 63

Report Date: 02222021

Work Orders : 688217 **Project ID:** 30064882-0002B

Lab Batch #: 3151067 **Sample:** 7721505-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 11:34 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-130	
o-Terphenyl	59.0	50.0	118	70-130	

Lab Batch #: 3151067 **Sample:** 7721505-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 11:55 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-130	
o-Terphenyl	61.4	50.0	123	70-130	

Lab Batch #: 3151067 **Sample:** 7721505-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.17.2021 12:16 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	149	200	75	70-130	
o-Terphenyl	75.9	100	76	70-130	

Lab Batch #: 3151067 **Sample:** 688217-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 15:41 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	99.8	96	70-130	
o-Terphenyl	46.9	49.9	94	70-130	

Lab Batch #: 3151067 **Sample:** 688217-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.17.2021 16:02 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.0	99.9	94	70-130	
o-Terphenyl	47.7	50.0	95	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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QC Summary 688217

Arcadis U.S., Inc

WLU 63

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151012 — Matrix: Solid — Date Prep: 02.12.2021
MB Sample Id: 7721422-1-BLK — LCS Sample Id: 7721422-1-BKS — LCSD Sample Id: 7721422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	255	102	261	104	90-110	2	20	mg/kg	02.13.2021 03:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151048 — Matrix: Solid — Date Prep: 02.17.2021
MB Sample Id: 7721499-1-BLK — LCS Sample Id: 7721499-1-BKS — LCSD Sample Id: 7721499-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	242	97	244	98	90-110	1	20	mg/kg	02.17.2021 12:07	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151012 — Matrix: Soil — Date Prep: 02.12.2021
Parent Sample Id: 688132-019 — MS Sample Id: 688132-019 S — MSD Sample Id: 688132-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	26.0	252	281	101	293	106	90-110	4	20	mg/kg	02.13.2021 03:55	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151012 — Matrix: Soil — Date Prep: 02.12.2021
Parent Sample Id: 688132-029 — MS Sample Id: 688132-029 S — MSD Sample Id: 688132-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	264	106	257	103	90-110	3	20	mg/kg	02.13.2021 05:10	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151048 — Matrix: Soil — Date Prep: 02.17.2021
Parent Sample Id: 688217-005 — MS Sample Id: 688217-005 S — MSD Sample Id: 688217-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1030	253	1240	83	1260	91	90-110	2	20	mg/kg	02.17.2021 12:23	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3151048 — Matrix: Soil — Date Prep: 02.17.2021
Parent Sample Id: 688220-001 — MS Sample Id: 688220-001 S — MSD Sample Id: 688220-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.08	250	252	100	278	110	90-110	10	20	mg/kg	02.17.2021 13:38	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 688217

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WLU 63

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3151067 — Matrix: Solid — Date Prep: 02.12.2021
MB Sample Id: 7721505-1-BLK — LCS Sample Id: 7721505-1-BKS — LCSD Sample Id: 7721505-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1150	115	1180	118	70-130	3	20	mg/kg	02.17.2021 11:55	
Diesel Range Organics (DRO)	<15.0	1000	1080	108	1150	115	70-130	6	20	mg/kg	02.17.2021 11:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		118		75		70-130	%	02.17.2021 11:55
o-Terphenyl	118		123		76		70-130	%	02.17.2021 11:55

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3151067 — Matrix: Solid — Date Prep: 02.12.2021
MB Sample Id: 7721505-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	02.17.2021 11:34	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3151067 — Matrix: Soil — Date Prep: 02.12.2021
Parent Sample Id: 688217-005 — MS Sample Id: 688217-005 S — MSD Sample Id: 688217-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	1060	106	1060	106	70-130	0	20	mg/kg	02.17.2021 15:41	
Diesel Range Organics (DRO)	<15.0	998	924	93	917	92	70-130	1	20	mg/kg	02.17.2021 15:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		94		70-130	%	02.17.2021 15:41
o-Terphenyl	94		95		70-130	%	02.17.2021 15:41

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3151003 — Matrix: Solid — Date Prep: 02.12.2021
MB Sample Id: 7721491-1-BLK — LCS Sample Id: 7721491-1-BKS — LCSD Sample Id: 7721491-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0866	87	0.0706	71	70-130	20	35	mg/kg	02.13.2021 15:02	
Toluene	<0.000456	0.100	0.0831	83	0.0707	71	70-130	16	35	mg/kg	02.13.2021 15:02	
Ethylbenzene	<0.000565	0.100	0.0897	90	0.0739	74	70-130	19	35	mg/kg	02.13.2021 15:02	
m,p-Xylenes	<0.00101	0.200	0.176	88	0.145	73	70-130	19	35	mg/kg	02.13.2021 15:02	
o-Xylene	<0.000344	0.100	0.0897	90	0.0743	74	70-130	19	35	mg/kg	02.13.2021 15:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		101		100		70-130	%	02.13.2021 15:02
4-Bromofluorobenzene	100		97		96		70-130	%	02.13.2021 15:02

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Final 1.000

QC Summary 688217

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Arcadis U.S., Inc

WLU 63

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151056 Matrix: Solid Date Prep: 02.17.2021
MB Sample Id: 7721525-1-BLK LCS Sample Id: 7721525-1-BKS LCSD Sample Id: 7721525-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.106	106	0.0962	96	70-130	10	35	mg/kg	02.17.2021 15:33	
Toluene	<0.000456	0.100	0.110	110	0.0977	98	70-130	12	35	mg/kg	02.17.2021 15:33	
Ethylbenzene	<0.000565	0.100	0.116	116	0.103	103	70-130	12	35	mg/kg	02.17.2021 15:33	
m,p-Xylenes	<0.00101	0.200	0.227	114	0.201	101	70-130	12	35	mg/kg	02.17.2021 15:33	
o-Xylene	<0.000344	0.100	0.116	116	0.105	105	70-130	10	35	mg/kg	02.17.2021 15:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	80		118		113		70-130	%	02.17.2021 15:33
4-Bromofluorobenzene	84		112		108		70-130	%	02.17.2021 15:33

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151003 Matrix: Soil Date Prep: 02.12.2021
Parent Sample Id: 688138-002 MS Sample Id: 688138-002 S MSD Sample Id: 688138-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0691	69	0.0695	70	70-130	1	35	mg/kg	02.13.2021 15:42	X
Toluene	<0.000455	0.0998	0.0657	66	0.0660	67	70-130	0	35	mg/kg	02.13.2021 15:42	X
Ethylbenzene	<0.000564	0.0998	0.0639	64	0.0649	66	70-130	2	35	mg/kg	02.13.2021 15:42	X
m,p-Xylenes	<0.00101	0.200	0.139	70	0.140	71	70-130	1	35	mg/kg	02.13.2021 15:42	
o-Xylene	<0.000344	0.0998	0.0714	72	0.0727	73	70-130	2	35	mg/kg	02.13.2021 15:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		70-130	%	02.13.2021 15:42
4-Bromofluorobenzene	100		101		70-130	%	02.13.2021 15:42

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3151056 Matrix: Soil Date Prep: 02.17.2021
Parent Sample Id: 688220-002 MS Sample Id: 688220-002 S MSD Sample Id: 688220-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0787	79	0.0846	85	70-130	7	35	mg/kg	02.17.2021 16:24	
Toluene	<0.000455	0.0998	0.0765	77	0.0834	84	70-130	9	35	mg/kg	02.17.2021 16:24	
Ethylbenzene	<0.000564	0.0998	0.0511	51	0.0516	52	70-130	1	35	mg/kg	02.17.2021 16:24	X
m,p-Xylenes	<0.00101	0.200	0.102	51	0.0986	49	70-130	3	35	mg/kg	02.17.2021 16:24	X
o-Xylene	<0.000344	0.0998	0.0490	49	0.0518	52	70-130	6	35	mg/kg	02.17.2021 16:24	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		83		70-130	%	02.17.2021 16:24
4-Bromofluorobenzene	154	**	183	**	70-130	%	02.17.2021 16:24

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Attachment A Laboratory Data Package Cover Page

Project Name: **WLU 63** Laboratory Number: **688217**

This Data package consists of : Laboratory Batch No(s): **7721491, 7721505, 7721422, 7721525, 7721**

This signature page, the laboratory review checklist, and the following reportable data:

☐ R1 Field chain-of-custody documentation;

☐ R2 Sample identification cross-reference;

☐ R3 Test reports (analytical data sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

☐ R4 Surrogate Recovery data including:
- a) Calculated recovery (%R), and
- b) The laboratory's surrogate QC limits.

☐ R5 Test reports/summary forms for blank samples;

☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
- a) LCS spiking amounts,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

☐ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %Rs and relative percent differences (RPDs) and
- e) The laboratory's MS/MSD QC limits

☐ R8 Laboratory anaytical duplicate (if applicable) recovery and precision:
- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

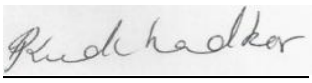
☐ R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;

☐ R10 Other problems or anomalies.

☐ Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies, observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC 25.6 and was last inspection by [ ] TCEQ or [ ] _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The offical signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sachin Kudchadkar		**Project Manager**	**02222021**
Name (Printed)	Signature	Official Title (printed)	Date

A1

1. Items identified by the letter "R" must be included in the laboratory data package submitted to the TCEQ-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report Identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Attachment A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name:	EUROFINS XENCO, LLC	LRC Date:	02222021
Project Name:	WLU 63	Laboratory Job Number:	688217
Reviewer Name:	SGK	Batch Number(s) :	7721491, 7721505, 7721422, 7721525, 7721499

ER# [1]	DESCRIPTION

1 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No is checked on the LRC).

A3

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DCS Summary 688217

Arcadis U.S., Inc, Austin, TX

WLU 63

Analytical Method: **BTEX by EPA 8021B** Matrix: **Soil**

Prep Method: **SW5035A** Laboratory: **Xenco - Midland**

Parameter	SDL	MQL	Spike Amount	Actual Amount	Units
Benzene	0.000385	0.00200	0.00100	0.000891	mg/kg
Toluene	0.000456	0.00200	0.00100	0.00121	mg/kg
Ethylbenzene	0.000565	0.00200	0.00100	0.00104	mg/kg
m,p-Xylenes	0.00101	0.00400	0.00200	0.00214	mg/kg
o-Xylene	0.000344	0.00200	0.00100	0.000883	mg/kg

Analytical Method: **Chloride by EPA 300** Matrix: **Soil**

Prep Method: **E300P** Laboratory: **Xenco - Midland**

Parameter	SDL	MQL	Spike Amount	Actual Amount	Units
Chloride	0.858	5.00	5.00	1.59	mg/kg

Eurofins Xenco
1211 W Florida Ave
Midland TX 79701
Phone 432-704-5440

Chain of Custody Record

688217

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): Std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064882-0002B	Project #: 30064882-0002B			
Site: WLU 63	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-4-S-0-.5-210211	2/11/21	1117	G	Solid						1	
SB-4-S-1-1.5-210211		1127		Solid							
SB-5-S-0-.5-210211		1139		Solid							
SB-6-S-0-.5-210211		1153		Solid							
SB-6-S-1-1.75-210211		1156		Solid							
SB-7-S-0-.5-210211		1216		Solid							
SB-7-S-1-1.75-210211		1224		Solid							
SB-8-S-0-.5-210211		1234		Solid							
SB-8-SD-0-.5-210211		—		Solid							
SB-8-S-1-1.5-210211		1244		Solid							
SB-9-S-0-.5-210211	"	1249	C	Solid						1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		2/11/21 1600	Arcadis		2-12-21 1600	Arcadis
2	Carlos Grajeda	2-12-21 845	Arcadis	KRAMER	2/12/21 845	
3						

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: -3.0/-3.5

Eurofins Xenco
1211 W Florida Ave
Midland TX 79701
Phone 432-704-5440

Chain of Custody Record

688217

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): Std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064882-0002B	Project #: 30064882-0002B			
Site: WLU 63	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-9-S-1-1.5-210211	2/11/21	1257	G	Solid						1	
SB-10-S-0-.5-210211		1305	G	Solid						1	
SB-10-S-1-1.5-210211		1310	G	Solid						1	
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

QS 2/11/21

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		2/11/21 1600	Arcadis		2-11-21 1600	Arcadis
2		2-12-21 845	Arcadis		2/12/21 845	
3						

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: -3.0/-3.5

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Arcadis U.S., Inc

Date/ Time Received: 02.12.2021 08.45.00 AM

Work Order #: 688217

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 02.12.2021
Brianna Teel

Checklist reviewed by: Sachin Kudchadkar Date: 02.12.2021
Sachin Kudchadkar

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Douglas Jordan
ARCADIS U.S. Inc
10205 Westheimer Rd
Suite 800
Houston, Texas 77042

Generated 4/7/2023 5:52:56 PM

JOB DESCRIPTION

WLU 63

JOB NUMBER

880-26348-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

Authorization

Generated
4/7/2023 5:52:56 PM

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

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Laboratory Job ID: 880-26348-1

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 880-26348-1
Project/Site: WLU 63

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Job ID: 880-26348-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26348-1

Receipt
The samples were received on 3/24/2023 3:09 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 1.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SB-14-S-0-.5'-20230324 (880-26348-1), SB-14-S-2'-20230324 (880-26348-2), SB-14-S-4'-20230324 (880-26348-3), SB-13-S-.5'-20230324 (880-26348-4), SB-13-S-2'-20230324 (880-26348-5), SB-13-S-4'-20230324 (880-26348-6), SB-12-S-.5'-20230324 (880-26348-7), SB-12-S-2'-20230324 (880-26348-8), SB-12-S-4'-20230324 (880-26348-9), SB-11-S-.5'-20230324 (880-26348-10), SB-11-S-2'-20230324 (880-26348-11) and SB-11-S-4'-20230324 (880-26348-12).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-50231 and analytical batch 880-50458 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-50231 and analytical batch 880-50458 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.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-49973/2-A) and (LCSD 880-49973/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-49973 and analytical batch 880-49993 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-50170 and analytical batch 880-50390 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-14-S-0-.5'-20230324

Lab Sample ID: 880-26348-1

Date Collected: 03/24/23 10:30
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		04/03/23 15:44	04/06/23 11:10	1
Toluene	<0.000455	U F1	0.00200	0.000455	mg/Kg		04/03/23 15:44	04/06/23 11:10	1
Ethylbenzene	<0.000564	U F1	0.00200	0.000564	mg/Kg		04/03/23 15:44	04/06/23 11:10	1
m-Xylene & p-Xylene	<0.00101	U F2 F1	0.00399	0.00101	mg/Kg		04/03/23 15:44	04/06/23 11:10	1
o-Xylene	<0.000343	U F2 F1	0.00200	0.000343	mg/Kg		04/03/23 15:44	04/06/23 11:10	1
Xylenes, Total	<0.00101	U F2 F1	0.00399	0.00101	mg/Kg		04/03/23 15:44	04/06/23 11:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*04/03/23 15:44*	*04/06/23 11:10*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*04/03/23 15:44*	*04/06/23 11:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**34.1**	**J**	49.9	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**34.1**	**J *-**	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:47	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:47	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/30/23 13:52*	*03/31/23 18:47*	*1*
o-Terphenyl	*77*		*70 - 130*	*03/30/23 13:52*	*03/31/23 18:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.3**		4.99	0.394	mg/Kg			04/04/23 22:36	1

Client Sample ID: SB-14-S-2'-20230324

Lab Sample ID: 880-26348-2

Date Collected: 03/24/23 10:35
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		04/03/23 15:44	04/06/23 11:31	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/03/23 15:44	04/06/23 11:31	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/03/23 15:44	04/06/23 11:31	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:44	04/06/23 11:31	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/03/23 15:44	04/06/23 11:31	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:44	04/06/23 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*04/03/23 15:44*	*04/06/23 11:31*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/03/23 15:44*	*04/06/23 11:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.7**	**J**	50.0	15.0	mg/Kg			04/03/23 10:59	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-14-S-2'-20230324

Lab Sample ID: 880-26348-2

Date Collected: 03/24/23 10:35
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	42.7	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:29	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:29	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/30/23 13:52*	*03/31/23 19:29*	*1*
o-Terphenyl	*90*		*70 - 130*	*03/30/23 13:52*	*03/31/23 19:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67.2		4.96	0.392	mg/Kg			04/04/23 22:41	1

Client Sample ID: SB-14-S-4'-20230324

Lab Sample ID: 880-26348-3

Date Collected: 03/24/23 10:40
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00202	0.000389	mg/Kg		04/03/23 15:44	04/06/23 11:51	1
Toluene	<0.000461	U	0.00202	0.000461	mg/Kg		04/03/23 15:44	04/06/23 11:51	1
Ethylbenzene	<0.000571	U	0.00202	0.000571	mg/Kg		04/03/23 15:44	04/06/23 11:51	1
m-Xylene & p-Xylene	<0.00102	U	0.00404	0.00102	mg/Kg		04/03/23 15:44	04/06/23 11:51	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		04/03/23 15:44	04/06/23 11:51	1
Xylenes, Total	<0.00102	U	0.00404	0.00102	mg/Kg		04/03/23 15:44	04/06/23 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*04/03/23 15:44*	*04/06/23 11:51*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*04/03/23 15:44*	*04/06/23 11:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	31.0	J	50.0	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	31.0	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 20:12	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 20:12	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*03/30/23 13:52*	*03/31/23 20:12*	*1*
o-Terphenyl	*90*		*70 - 130*	*03/30/23 13:52*	*03/31/23 20:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.5		5.05	0.399	mg/Kg			04/04/23 22:46	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-13-S-.5'-20230324

Lab Sample ID: 880-26348-4

Date Collected: 03/24/23 10:45
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		04/03/23 15:44	04/06/23 12:12	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		04/03/23 15:44	04/06/23 12:12	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		04/03/23 15:44	04/06/23 12:12	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		04/03/23 15:44	04/06/23 12:12	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		04/03/23 15:44	04/06/23 12:12	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		04/03/23 15:44	04/06/23 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*04/03/23 15:44*	*04/06/23 12:12*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/03/23 15:44*	*04/06/23 12:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**61.8**		49.9	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**34.7**	**J *-**	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:04	1
Diesel Range Organics (Over C10-C28)	**27.1**	**J *-**	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:04	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/30/23 13:52*	*03/31/23 18:04*	*1*
o-Terphenyl	*74*		*70 - 130*	*03/30/23 13:52*	*03/31/23 18:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82.5**	**F1**	5.02	0.397	mg/Kg			04/04/23 22:50	1

Client Sample ID: SB-13-S-2'-20230324

Lab Sample ID: 880-26348-5

Date Collected: 03/24/23 10:50
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		04/03/23 15:44	04/06/23 12:33	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		04/03/23 15:44	04/06/23 12:33	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		04/03/23 15:44	04/06/23 12:33	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		04/03/23 15:44	04/06/23 12:33	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		04/03/23 15:44	04/06/23 12:33	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		04/03/23 15:44	04/06/23 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*04/03/23 15:44*	*04/06/23 12:33*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*04/03/23 15:44*	*04/06/23 12:33*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**37.2**	**J**	49.9	15.0	mg/Kg			04/03/23 10:59	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-13-S-2'-20230324

Lab Sample ID: 880-26348-5

Date Collected: 03/24/23 10:50
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	21.3	J *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:25	1
Diesel Range Organics (Over C10-C28)	15.9	J *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:25	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*03/30/23 13:52*	*03/31/23 18:25*	*1*
o-Terphenyl	*95*		*70 - 130*	*03/30/23 13:52*	*03/31/23 18:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.1		4.98	0.393	mg/Kg			04/04/23 23:04	1

Client Sample ID: SB-13-S-4'-20230324

Lab Sample ID: 880-26348-6

Date Collected: 03/24/23 11:00
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		04/03/23 15:44	04/06/23 12:53	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		04/03/23 15:44	04/06/23 12:53	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/03/23 15:44	04/06/23 12:53	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:44	04/06/23 12:53	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/03/23 15:44	04/06/23 12:53	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:44	04/06/23 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*04/03/23 15:44*	*04/06/23 12:53*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*04/03/23 15:44*	*04/06/23 12:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	34.2	J	49.9	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	34.2	J *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:08	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:08	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*03/30/23 13:52*	*03/31/23 19:08*	*1*
o-Terphenyl	*80*		*70 - 130*	*03/30/23 13:52*	*03/31/23 19:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	191		4.97	0.393	mg/Kg			04/04/23 23:08	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-12-S-.5'-20230324

Lab Sample ID: 880-26348-7

Date Collected: 03/24/23 11:05
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		04/03/23 15:44	04/06/23 13:14	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		04/03/23 15:44	04/06/23 13:14	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		04/03/23 15:44	04/06/23 13:14	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		04/03/23 15:44	04/06/23 13:14	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		04/03/23 15:44	04/06/23 13:14	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		04/03/23 15:44	04/06/23 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*04/03/23 15:44*	*04/06/23 13:14*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*04/03/23 15:44*	*04/06/23 13:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**85.7**		49.9	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**31.4**	**J *-**	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 16:59	1
Diesel Range Organics (Over C10-C28)	**54.3**	***-**	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 16:59	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*03/30/23 13:52*	*03/31/23 16:59*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/30/23 13:52*	*03/31/23 16:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.9**		5.01	0.396	mg/Kg			04/04/23 23:22	1

Client Sample ID: SB-12-S-2'-20230324

Lab Sample ID: 880-26348-8

Date Collected: 03/24/23 11:10
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		04/03/23 15:44	04/06/23 13:34	1
Toluene	**0.000539**	**J**	0.00200	0.000455	mg/Kg		04/03/23 15:44	04/06/23 13:34	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/03/23 15:44	04/06/23 13:34	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:44	04/06/23 13:34	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/03/23 15:44	04/06/23 13:34	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:44	04/06/23 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*04/03/23 15:44*	*04/06/23 13:34*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*04/03/23 15:44*	*04/06/23 13:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**55.9**		50.0	15.0	mg/Kg			04/03/23 10:59	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-12-S-2'-20230324

Lab Sample ID: 880-26348-8

Date Collected: 03/24/23 11:10
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	29.5	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 17:20	1
Diesel Range Organics (Over C10-C28)	26.4	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 17:20	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/30/23 13:52*	*03/31/23 17:20*	*1*
o-Terphenyl	*89*		*70 - 130*	*03/30/23 13:52*	*03/31/23 17:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.9		5.00	0.395	mg/Kg			04/04/23 23:27	1

Client Sample ID: SB-12-S-4'-20230324

Lab Sample ID: 880-26348-9

Date Collected: 03/24/23 11:15
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		04/03/23 15:44	04/06/23 13:55	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		04/03/23 15:44	04/06/23 13:55	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		04/03/23 15:44	04/06/23 13:55	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		04/03/23 15:44	04/06/23 13:55	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		04/03/23 15:44	04/06/23 13:55	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		04/03/23 15:44	04/06/23 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*04/03/23 15:44*	*04/06/23 13:55*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*04/03/23 15:44*	*04/06/23 13:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	38.0	J	50.0	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.8	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 17:42	1
Diesel Range Organics (Over C10-C28)	20.2	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 17:42	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/30/23 13:52*	*03/31/23 17:42*	*1*
o-Terphenyl	*87*		*70 - 130*	*03/30/23 13:52*	*03/31/23 17:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.5		5.00	0.395	mg/Kg			04/04/23 23:31	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-11-S-.5'-20230324

Lab Sample ID: 880-26348-10
Matrix: Solid
Date Collected: 03/24/23 11:20
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		04/03/23 15:44	04/06/23 14:15	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		04/03/23 15:44	04/06/23 14:15	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		04/03/23 15:44	04/06/23 14:15	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		04/03/23 15:44	04/06/23 14:15	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		04/03/23 15:44	04/06/23 14:15	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		04/03/23 15:44	04/06/23 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*04/03/23 15:44*	*04/06/23 14:15*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*04/03/23 15:44*	*04/06/23 14:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**35.9**	**J**	49.9	15.0	mg/Kg			04/03/23 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**35.9**	**J *-**	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:51	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:51	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/30/23 13:52*	*03/31/23 19:51*	*1*
o-Terphenyl	*74*		*70 - 130*	*03/30/23 13:52*	*03/31/23 19:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**346**		4.99	0.394	mg/Kg			04/04/23 23:36	1

Client Sample ID: SB-11-S-2'-20230324

Lab Sample ID: 880-26348-11
Matrix: Solid
Date Collected: 03/24/23 11:25
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00198	0.000381	mg/Kg		04/03/23 15:44	04/06/23 15:38	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		04/03/23 15:44	04/06/23 15:38	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		04/03/23 15:44	04/06/23 15:38	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		04/03/23 15:44	04/06/23 15:38	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/03/23 15:44	04/06/23 15:38	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		04/03/23 15:44	04/06/23 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*04/03/23 15:44*	*04/06/23 15:38*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*04/03/23 15:44*	*04/06/23 15:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**28.9**	**J**	49.9	15.0	mg/Kg			03/31/23 17:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-11-S-2'-20230324

Lab Sample ID: 880-26348-11
Matrix: Solid
Date Collected: 03/24/23 11:25
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	28.9	J *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 14:13	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 14:13	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 13:52	03/31/23 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/30/23 13:52*	*03/31/23 14:13*	*1*
o-Terphenyl	*76*		*70 - 130*	*03/30/23 13:52*	*03/31/23 14:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1220		49.8	3.93	mg/Kg			04/04/23 23:41	10

Client Sample ID: SB-11-S-4'-20230324

Lab Sample ID: 880-26348-12
Matrix: Solid
Date Collected: 03/24/23 11:30
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		04/03/23 15:44	04/06/23 15:59	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/03/23 15:44	04/06/23 15:59	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/03/23 15:44	04/06/23 15:59	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:44	04/06/23 15:59	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/03/23 15:44	04/06/23 15:59	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:44	04/06/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*04/03/23 15:44*	*04/06/23 15:59*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*04/03/23 15:44*	*04/06/23 15:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	27.4	J	50.0	15.0	mg/Kg			03/31/23 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	27.4	J *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 14:35	1
Diesel Range Organics (Over C10-C28)	<15.0	U *-	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 14:35	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/30/23 13:52*	*03/31/23 14:35*	*1*
o-Terphenyl	*74*		*70 - 130*	*03/30/23 13:52*	*03/31/23 14:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320		5.03	0.397	mg/Kg			04/04/23 23:45	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-26348-1	SB-14-S-0-.5'-20230324	87	96
880-26348-1 MS	SB-14-S-0-.5'-20230324	117	105
880-26348-1 MSD	SB-14-S-0-.5'-20230324	88	113
880-26348-2	SB-14-S-2'-20230324	87	92
880-26348-3	SB-14-S-4'-20230324	90	82
880-26348-4	SB-13-S-.5'-20230324	88	97
880-26348-5	SB-13-S-2'-20230324	95	96
880-26348-6	SB-13-S-4'-20230324	101	81
880-26348-7	SB-12-S-.5'-20230324	89	96
880-26348-8	SB-12-S-2'-20230324	94	105
880-26348-9	SB-12-S-4'-20230324	95	90
880-26348-10	SB-11-S-.5'-20230324	92	93
880-26348-11	SB-11-S-2'-20230324	86	79
880-26348-12	SB-11-S-4'-20230324	95	96
LCS 880-50231/1-A	Lab Control Sample	106	108
LCSD 880-50231/2-A	Lab Control Sample Dup	105	110
MB 880-50231/5-A	Method Blank	72	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-26348-1	SB-14-S-0-.5'-20230324	99	77
880-26348-2	SB-14-S-2'-20230324	113	90
880-26348-3	SB-14-S-4'-20230324	114	90
880-26348-4	SB-13-S-.5'-20230324	98	74
880-26348-5	SB-13-S-2'-20230324	119	95
880-26348-6	SB-13-S-4'-20230324	103	80
880-26348-7	SB-12-S-.5'-20230324	120	96
880-26348-8	SB-12-S-2'-20230324	113	89
880-26348-9	SB-12-S-4'-20230324	112	87
880-26348-10	SB-11-S-.5'-20230324	95	74
880-26348-11	SB-11-S-2'-20230324	97	76
880-26348-12	SB-11-S-4'-20230324	96	74
LCS 880-49973/2-A	Lab Control Sample	81	65 S1-
LCSD 880-49973/3-A	Lab Control Sample Dup	76	60 S1-
MB 880-49973/1-A	Method Blank	110	88

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50231/5-A
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/03/23 15:44	04/06/23 10:49	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/03/23 15:44	04/06/23 10:49	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/03/23 15:44	04/06/23 10:49	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 15:44	04/06/23 10:49	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/03/23 15:44	04/06/23 10:49	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 15:44	04/06/23 10:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*04/03/23 15:44*	*04/06/23 10:49*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/03/23 15:44*	*04/06/23 10:49*	*1*

Lab Sample ID: LCS 880-50231/1-A
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1108		mg/Kg		111	70 - 130
Toluene	0.100	0.09947		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09904		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2101		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1062		mg/Kg		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-50231/2-A
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1217		mg/Kg		122	70 - 130	9	35
Toluene	0.100	0.1090		mg/Kg		109	70 - 130	9	35
Ethylbenzene	0.100	0.1071		mg/Kg		107	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2256		mg/Kg		113	70 - 130	7	35
o-Xylene	0.100	0.1133		mg/Kg		113	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-26348-1 MS
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: SB-14-S-0-.5'-20230324
Prep Type: Total/NA
Prep Batch: 50231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000384	U	0.101	0.07376		mg/Kg		73	70 - 130
Toluene	<0.000455	U F1	0.101	0.06769	F1	mg/Kg		67	70 - 130

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

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

Lab Sample ID: 880-26348-1 MS
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: SB-14-S-0-.5'-20230324
Prep Type: Total/NA
Prep Batch: 50231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.000564	U F1	0.101	0.06797	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00101	U F2 F1	0.202	0.1397	F1	mg/Kg		69	70 - 130
o-Xylene	<0.000343	U F2 F1	0.101	0.07169		mg/Kg		71	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 880-26348-1 MSD
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: SB-14-S-0-.5'-20230324
Prep Type: Total/NA
Prep Batch: 50231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000384	U	0.0990	0.07720		mg/Kg		78	70 - 130	5	35
Toluene	<0.000455	U F1	0.0990	0.05793	F1	mg/Kg		59	70 - 130	16	35
Ethylbenzene	<0.000564	U F1	0.0990	0.04863	F1	mg/Kg		49	70 - 130	33	35
m-Xylene & p-Xylene	<0.00101	U F2 F1	0.198	0.09196	F2 F1	mg/Kg		46	70 - 130	41	35
o-Xylene	<0.000343	U F2 F1	0.0990	0.04671	F2 F1	mg/Kg		47	70 - 130	42	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

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

Lab Sample ID: MB 880-49973/1-A
Matrix: Solid
Analysis Batch: 49993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49973

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 09:25	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 09:25	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 13:52	03/31/23 09:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/30/23 13:52*	*03/31/23 09:25*	*1*
o-Terphenyl	*88*		*70 - 130*	*03/30/23 13:52*	*03/31/23 09:25*	*1*

Lab Sample ID: LCS 880-49973/2-A
Matrix: Solid
Analysis Batch: 49993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49973

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	397.2	*-	mg/Kg		40	70 - 130
Diesel Range Organics (Over C10-C28)	1000	538.8	*-	mg/Kg		54	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

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

Lab Sample ID: LCS 880-49973/2-A
Matrix: Solid
Analysis Batch: 49993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49973

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	65	S1-	70 - 130

Lab Sample ID: LCSD 880-49973/3-A
Matrix: Solid
Analysis Batch: 49993

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49973

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	347.7	*-	mg/Kg		35	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	490.0	*-	mg/Kg		49	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	76		70 - 130
o-Terphenyl	60	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50170/1-A
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			04/04/23 21:32	1

Lab Sample ID: LCS 880-50170/2-A
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.0		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-50170/3-A
Matrix: Solid
Analysis Batch: 50390

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	1	20

Lab Sample ID: 880-26348-4 MS
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: SB-13-S-.5'-20230324
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	82.5	F1	251	300.6	F1	mg/Kg		87	90 - 110		

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-26348-4 MSD
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: SB-13-S-.5'-20230324
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	82.5	F1	251	294.0	F1	mg/Kg		84	90 - 110	2	20

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

GC VOA

Prep Batch: 50231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Total/NA	Solid	5030B	
880-26348-2	SB-14-S-2'-20230324	Total/NA	Solid	5030B	
880-26348-3	SB-14-S-4'-20230324	Total/NA	Solid	5030B	
880-26348-4	SB-13-S-.5'-20230324	Total/NA	Solid	5030B	
880-26348-5	SB-13-S-2'-20230324	Total/NA	Solid	5030B	
880-26348-6	SB-13-S-4'-20230324	Total/NA	Solid	5030B	
880-26348-7	SB-12-S-.5'-20230324	Total/NA	Solid	5030B	
880-26348-8	SB-12-S-2'-20230324	Total/NA	Solid	5030B	
880-26348-9	SB-12-S-4'-20230324	Total/NA	Solid	5030B	
880-26348-10	SB-11-S-.5'-20230324	Total/NA	Solid	5030B	
880-26348-11	SB-11-S-2'-20230324	Total/NA	Solid	5030B	
880-26348-12	SB-11-S-4'-20230324	Total/NA	Solid	5030B	
MB 880-50231/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-50231/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-50231/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-26348-1 MS	SB-14-S-0-.5'-20230324	Total/NA	Solid	5030B	
880-26348-1 MSD	SB-14-S-0-.5'-20230324	Total/NA	Solid	5030B	

Analysis Batch: 50458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Total/NA	Solid	8021B	50231
880-26348-2	SB-14-S-2'-20230324	Total/NA	Solid	8021B	50231
880-26348-3	SB-14-S-4'-20230324	Total/NA	Solid	8021B	50231
880-26348-4	SB-13-S-.5'-20230324	Total/NA	Solid	8021B	50231
880-26348-5	SB-13-S-2'-20230324	Total/NA	Solid	8021B	50231
880-26348-6	SB-13-S-4'-20230324	Total/NA	Solid	8021B	50231
880-26348-7	SB-12-S-.5'-20230324	Total/NA	Solid	8021B	50231
880-26348-8	SB-12-S-2'-20230324	Total/NA	Solid	8021B	50231
880-26348-9	SB-12-S-4'-20230324	Total/NA	Solid	8021B	50231
880-26348-10	SB-11-S-.5'-20230324	Total/NA	Solid	8021B	50231
880-26348-11	SB-11-S-2'-20230324	Total/NA	Solid	8021B	50231
880-26348-12	SB-11-S-4'-20230324	Total/NA	Solid	8021B	50231
MB 880-50231/5-A	Method Blank	Total/NA	Solid	8021B	50231
LCS 880-50231/1-A	Lab Control Sample	Total/NA	Solid	8021B	50231
LCSD 880-50231/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50231
880-26348-1 MS	SB-14-S-0-.5'-20230324	Total/NA	Solid	8021B	50231
880-26348-1 MSD	SB-14-S-0-.5'-20230324	Total/NA	Solid	8021B	50231

GC Semi VOA

Prep Batch: 49973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-2	SB-14-S-2'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-3	SB-14-S-4'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-4	SB-13-S-.5'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-5	SB-13-S-2'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-6	SB-13-S-4'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-7	SB-12-S-.5'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-8	SB-12-S-2'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-9	SB-12-S-4'-20230324	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

GC Semi VOA (Continued)

Prep Batch: 49973 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-10	SB-11-S-.5'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-11	SB-11-S-2'-20230324	Total/NA	Solid	8015NM Prep	
880-26348-12	SB-11-S-4'-20230324	Total/NA	Solid	8015NM Prep	
MB 880-49973/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49973/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49973/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-2	SB-14-S-2'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-3	SB-14-S-4'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-4	SB-13-S-.5'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-5	SB-13-S-2'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-6	SB-13-S-4'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-7	SB-12-S-.5'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-8	SB-12-S-2'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-9	SB-12-S-4'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-10	SB-11-S-.5'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-11	SB-11-S-2'-20230324	Total/NA	Solid	8015B NM	49973
880-26348-12	SB-11-S-4'-20230324	Total/NA	Solid	8015B NM	49973
MB 880-49973/1-A	Method Blank	Total/NA	Solid	8015B NM	49973
LCS 880-49973/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49973
LCSD 880-49973/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49973

Analysis Batch: 50062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Total/NA	Solid	8015 NM	
880-26348-2	SB-14-S-2'-20230324	Total/NA	Solid	8015 NM	
880-26348-3	SB-14-S-4'-20230324	Total/NA	Solid	8015 NM	
880-26348-4	SB-13-S-.5'-20230324	Total/NA	Solid	8015 NM	
880-26348-5	SB-13-S-2'-20230324	Total/NA	Solid	8015 NM	
880-26348-6	SB-13-S-4'-20230324	Total/NA	Solid	8015 NM	
880-26348-7	SB-12-S-.5'-20230324	Total/NA	Solid	8015 NM	
880-26348-8	SB-12-S-2'-20230324	Total/NA	Solid	8015 NM	
880-26348-9	SB-12-S-4'-20230324	Total/NA	Solid	8015 NM	
880-26348-10	SB-11-S-.5'-20230324	Total/NA	Solid	8015 NM	
880-26348-11	SB-11-S-2'-20230324	Total/NA	Solid	8015 NM	
880-26348-12	SB-11-S-4'-20230324	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Soluble	Solid	DI Leach	
880-26348-2	SB-14-S-2'-20230324	Soluble	Solid	DI Leach	
880-26348-3	SB-14-S-4'-20230324	Soluble	Solid	DI Leach	
880-26348-4	SB-13-S-.5'-20230324	Soluble	Solid	DI Leach	
880-26348-5	SB-13-S-2'-20230324	Soluble	Solid	DI Leach	
880-26348-6	SB-13-S-4'-20230324	Soluble	Solid	DI Leach	
880-26348-7	SB-12-S-.5'-20230324	Soluble	Solid	DI Leach	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

HPLC/IC (Continued)

Leach Batch: 50170 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-8	SB-12-S-2'-20230324	Soluble	Solid	DI Leach	
880-26348-9	SB-12-S-4'-20230324	Soluble	Solid	DI Leach	
880-26348-10	SB-11-S-.5'-20230324	Soluble	Solid	DI Leach	
880-26348-11	SB-11-S-2'-20230324	Soluble	Solid	DI Leach	
880-26348-12	SB-11-S-4'-20230324	Soluble	Solid	DI Leach	
MB 880-50170/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50170/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50170/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26348-4 MS	SB-13-S-.5'-20230324	Soluble	Solid	DI Leach	
880-26348-4 MSD	SB-13-S-.5'-20230324	Soluble	Solid	DI Leach	

Analysis Batch: 50390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26348-1	SB-14-S-0-.5'-20230324	Soluble	Solid	300.0	50170
880-26348-2	SB-14-S-2'-20230324	Soluble	Solid	300.0	50170
880-26348-3	SB-14-S-4'-20230324	Soluble	Solid	300.0	50170
880-26348-4	SB-13-S-.5'-20230324	Soluble	Solid	300.0	50170
880-26348-5	SB-13-S-2'-20230324	Soluble	Solid	300.0	50170
880-26348-6	SB-13-S-4'-20230324	Soluble	Solid	300.0	50170
880-26348-7	SB-12-S-.5'-20230324	Soluble	Solid	300.0	50170
880-26348-8	SB-12-S-2'-20230324	Soluble	Solid	300.0	50170
880-26348-9	SB-12-S-4'-20230324	Soluble	Solid	300.0	50170
880-26348-10	SB-11-S-.5'-20230324	Soluble	Solid	300.0	50170
880-26348-11	SB-11-S-2'-20230324	Soluble	Solid	300.0	50170
880-26348-12	SB-11-S-4'-20230324	Soluble	Solid	300.0	50170
MB 880-50170/1-A	Method Blank	Soluble	Solid	300.0	50170
LCS 880-50170/2-A	Lab Control Sample	Soluble	Solid	300.0	50170
LCSD 880-50170/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50170
880-26348-4 MS	SB-13-S-.5'-20230324	Soluble	Solid	300.0	50170
880-26348-4 MSD	SB-13-S-.5'-20230324	Soluble	Solid	300.0	50170

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-14-S-0-.5'-20230324

Lab Sample ID: 880-26348-1

Date Collected: 03/24/23 10:30
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 11:10	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 18:47	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:36	SMC	EET MID

Client Sample ID: SB-14-S-2'-20230324

Lab Sample ID: 880-26348-2

Date Collected: 03/24/23 10:35
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.97 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 11:31	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 19:29	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:41	SMC	EET MID

Client Sample ID: SB-14-S-4'-20230324

Lab Sample ID: 880-26348-3

Date Collected: 03/24/23 10:40
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.95 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 11:51	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 20:12	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:46	SMC	EET MID

Client Sample ID: SB-13-S-.5'-20230324

Lab Sample ID: 880-26348-4

Date Collected: 03/24/23 10:45
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 12:12	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 18:04	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-13-S-.5'-20230324

Lab Sample ID: 880-26348-4

Date Collected: 03/24/23 10:45
Matrix: Solid
Date Received: 03/24/23 15:09

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	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:50	SMC	EET MID

Client Sample ID: SB-13-S-2'-20230324

Lab Sample ID: 880-26348-5

Date Collected: 03/24/23 10:50
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 12:33	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 18:25	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:04	SMC	EET MID

Client Sample ID: SB-13-S-4'-20230324

Lab Sample ID: 880-26348-6

Date Collected: 03/24/23 11:00
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 12:53	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 19:08	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:08	SMC	EET MID

Client Sample ID: SB-12-S-.5'-20230324

Lab Sample ID: 880-26348-7

Date Collected: 03/24/23 11:05
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.99 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 13:14	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 16:59	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:22	SMC	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-12-S-2'-20230324

Lab Sample ID: 880-26348-8

Date Collected: 03/24/23 11:10
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 13:34	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 17:20	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:27	SMC	EET MID

Client Sample ID: SB-12-S-4'-20230324

Lab Sample ID: 880-26348-9

Date Collected: 03/24/23 11:15
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 13:55	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 17:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:31	SMC	EET MID

Client Sample ID: SB-11-S-.5'-20230324

Lab Sample ID: 880-26348-10

Date Collected: 03/24/23 11:20
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 14:15	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	04/03/23 10:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 19:51	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:36	SMC	EET MID

Client Sample ID: SB-11-S-2'-20230324

Lab Sample ID: 880-26348-11

Date Collected: 03/24/23 11:25
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.05 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 15:38	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	03/31/23 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 14:13	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Client Sample ID: SB-11-S-2'-20230324

Lab Sample ID: 880-26348-11

Date Collected: 03/24/23 11:25
Matrix: Solid
Date Received: 03/24/23 15:09

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	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	50390	04/04/23 23:41	SMC	EET MID

Client Sample ID: SB-11-S-4'-20230324

Lab Sample ID: 880-26348-12

Date Collected: 03/24/23 11:30
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.97 g	5 mL	50231	04/03/23 15:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50458	04/06/23 15:59	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50062	03/31/23 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49973	03/30/23 13:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49993	03/31/23 14:35	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 23:45	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 63

Job ID: 880-26348-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26348-1	SB-14-S-0-.5'-20230324	Solid	03/24/23 10:30	03/24/23 15:09
880-26348-2	SB-14-S-2'-20230324	Solid	03/24/23 10:35	03/24/23 15:09
880-26348-3	SB-14-S-4'-20230324	Solid	03/24/23 10:40	03/24/23 15:09
880-26348-4	SB-13-S-.5'-20230324	Solid	03/24/23 10:45	03/24/23 15:09
880-26348-5	SB-13-S-2'-20230324	Solid	03/24/23 10:50	03/24/23 15:09
880-26348-6	SB-13-S-4'-20230324	Solid	03/24/23 11:00	03/24/23 15:09
880-26348-7	SB-12-S-.5'-20230324	Solid	03/24/23 11:05	03/24/23 15:09
880-26348-8	SB-12-S-2'-20230324	Solid	03/24/23 11:10	03/24/23 15:09
880-26348-9	SB-12-S-4'-20230324	Solid	03/24/23 11:15	03/24/23 15:09
880-26348-10	SB-11-S-.5'-20230324	Solid	03/24/23 11:20	03/24/23 15:09
880-26348-11	SB-11-S-2'-20230324	Solid	03/24/23 11:25	03/24/23 15:09
880-26348-12	SB-11-S-4'-20230324	Solid	03/24/23 11:30	03/24/23 15:09

Eurofins Midland
1211 W Florida Ave
Midland, TX 79701
Phone (432) 704-5440

Chain of Custody Record

eurofins | Environment Testing

260348

Client Information	Sampler: Daniel Mabee	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-5490-723 1
Client Contact: Douglas Jordan	Phone: 432-999-2980	E-Mail: John Builes@et eurofinsus com	State of Origin: NM	Page: Page 1 of 2
Company: ARCADIS U S Inc	PWSID:			Job #:
Address: 10205 Westheimer Rd Suite 800	Due Date Requested:			
City: Houston	TAT Requested (days): Standard			
State Zip: TX, 77042	Compliance Project: Δ Yes Δ No			
Phone: 713-953-4739(Tel)	PO #: PN 30172230 - 00020			
Email: douglas jordan@arcadis com	WO #:			
Project Name: Lovington WLU 63	Project #: 88001697			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H - Ascorbic Acid, I Ice, J - DI Water, K - EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R - Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W - pH 4-5, Y Trizma, Z other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SB-14-S-0-.5'-20230324	3-24-23	1030	G	Solid			X	1	402
SB-14-S-2'-20230324		1035		Solid			X	1	
SB-14-S-4'-20230324		1040		Solid			X	1	
SB-13-S-0-.5'-20230324		1045		Solid			X	1	
SB-13-S-2'-20230324		1050		Solid			X		
SB-13-S-4'-20230324		1100		Solid			X		
SB-12-S-0-.5'-20230324		1105		Solid			X		
SB-12-S-2'-20230324		1110		Solid			X		
SB-12-S-4'-20230324		1115		Solid			X		
SB-11-S-0-.5'-20230324		1120		Solid			X	1	
SB-11-S-2'-20230324	3-24-23	1125	G	Solid			X	1	

880-26348 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:
Relinquished by:	Date/Time: 3-24-23 1500	Company: Arcadis	Received by:	Date/Time: 3/24/23	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1509	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 1.3/1.0

Ver: 01/16/2019

Eurofins Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

eurofins | Environment Testing

26348

Client Information	Sampler: Daniel Moore	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-5490-723 2
Client Contact: Douglas Jordan	Phone: 432-894-2980	E-Mail: John Builes@et eurofinsus com	State of Origin: NM	Page: Page 2 of 2
Company: ARCADIS U S Inc	PWSID:			Job #:
Address: 10205 Westheimer Rd Suite 800	Due Date Requested:			
City: Houston	TAT Requested (days): Standard			
State, Zip: TX, 77042	Compliance Project: Δ Yes Δ No			
Phone: 713-953-4739(Tel)	PO #: PN 30172230 – 00020			
Email: douglas jordan@arcadis com	WO #:			
Project Name: Lovington WLU 63	Project #: 88001697			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E NaHSO4, F - MeOH, G Amchlor, H - Ascorbic Acid, I - Ice, J DI Water, K - EDTA, L - EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R - Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SB-11-5-4'-20230324	3-24-23	1130	G	Solid			X	1	
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

Loc: 880
26348

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		3-24-23 / 1500	Arcadis		3/24/23	
2	Relinquished by	Date/Time	Company	Received by	Date/Time 1509	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks. 1-3 | 1.0

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc Job Number: 880-26348-1

Login Number: 26348 **List Source: Eurofins Midland**
List Number: 1
Creator: Rodriguez, Leticia

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	

Arcadis U.S., Inc.
10205 Westheimer Road, Suite 800
Houston
Texas 77042
Phone: 713 953 4800
Fax: 713 977 4620
www.arcadis.com

Appendix B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 5/27/2025 5:43:06 PM Revision 1

JOB DESCRIPTION

WLU 63
LEA COUNTY, NM

JOB NUMBER

890-8191-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated
5/27/2025 5:43:06 PM
Revision 1

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

Client: Arcadis US Inc.
Project/Site: WLU 63

Laboratory Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc. Job ID: 890-8191-1
Project/Site: WLU 63 SDG: LEA COUNTY, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Arcadis US Inc.
Project: WLU 63

Job ID: 890-8191-1

Job ID: 890-8191-1 Eurofins Carlsbad

Job Narrative
890-8191-1

REVISION

The report being provided is a revision of the original report sent on 5/21/2025. The report (revision 1) is being revised due to Revised report to add on-hold analysis per client request..

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The sample was received on 5/20/2025 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C.

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: B - 9C - 4.75' (890-8191-1).

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

Diesel Range Organics
Method 8015MOD_NM: The method blank for preparation batch 880-110558 and analytical batch 880-110591 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Client Sample ID: B - 9C - 4.75'

Date Collected: 05/20/25 11:00
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8191-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.00138	mg/Kg		05/23/25 10:18	05/24/25 01:35	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/23/25 10:18	05/24/25 01:35	1
Ethylbenzene	<0.00199	U	0.00199	0.00108	mg/Kg		05/23/25 10:18	05/24/25 01:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00227	mg/Kg		05/23/25 10:18	05/24/25 01:35	1
o-Xylene	<0.00199	U	0.00199	0.00157	mg/Kg		05/23/25 10:18	05/24/25 01:35	1
Xylenes, Total	<0.00398	U	0.00398	0.00227	mg/Kg		05/23/25 10:18	05/24/25 01:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/23/25 10:18*	*05/24/25 01:35*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*05/23/25 10:18*	*05/24/25 01:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00227	mg/Kg			05/24/25 01:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**31.0**	**J**	50.0	15.1	mg/Kg			05/21/25 13:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	14.5	mg/Kg		05/21/25 07:54	05/21/25 13:09	1
Diesel Range Organics (Over C10-C28)	**31.0**	**J B**	50.0	15.1	mg/Kg		05/21/25 07:54	05/21/25 13:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.1	mg/Kg		05/21/25 07:54	05/21/25 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*05/21/25 07:54*	*05/21/25 13:09*	*1*
o-Terphenyl	*117*		*70 - 130*	*05/21/25 07:54*	*05/21/25 13:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88.5**		10.0	0.397	mg/Kg			05/23/25 16:40	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8191-1	B - 9C - 4.75'	108	83
LCS 880-110815/1-A	Lab Control Sample	102	95
LCSD 880-110815/2-A	Lab Control Sample Dup	106	95
MB 880-110815/5-A	Method Blank	101	76

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8191-1	B - 9C - 4.75'	108	117
LCS 880-110558/2-A	Lab Control Sample	124	125
LCSD 880-110558/3-A	Lab Control Sample Dup	118	116
MB 880-110558/1-A	Method Blank	119	128

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-110815/5-A
Matrix: Solid
Analysis Batch: 110789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.00139	mg/Kg		05/23/25 10:18	05/23/25 17:49	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/23/25 10:18	05/23/25 17:49	1
Ethylbenzene	<0.00200	U	0.00200	0.00109	mg/Kg		05/23/25 10:18	05/23/25 17:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00229	mg/Kg		05/23/25 10:18	05/23/25 17:49	1
o-Xylene	<0.00200	U	0.00200	0.00158	mg/Kg		05/23/25 10:18	05/23/25 17:49	1
Xylenes, Total	<0.00400	U	0.00400	0.00229	mg/Kg		05/23/25 10:18	05/23/25 17:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/23/25 10:18*	*05/23/25 17:49*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*05/23/25 10:18*	*05/23/25 17:49*	*1*

Lab Sample ID: LCS 880-110815/1-A
Matrix: Solid
Analysis Batch: 110789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110815

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09496		mg/Kg		95	70 - 130		
Toluene			0.100	0.09185		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09019		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1974		mg/Kg		99	70 - 130		
o-Xylene			0.100	0.09929		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-110815/2-A
Matrix: Solid
Analysis Batch: 110789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110815

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09681		mg/Kg		97	70 - 130	2	35
Toluene			0.100	0.09244		mg/Kg		92	70 - 130	1	35
Ethylbenzene			0.100	0.09046		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1964		mg/Kg		98	70 - 130	1	35
o-Xylene			0.100	0.09883		mg/Kg		99	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

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

Lab Sample ID: MB 880-110558/1-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	14.5	mg/Kg		05/20/25 16:23	05/21/25 08:07	1
Diesel Range Organics (Over C10-C28)	19.45	J	50.0	15.1	mg/Kg		05/20/25 16:23	05/21/25 08:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.1	mg/Kg		05/20/25 16:23	05/21/25 08:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*05/20/25 16:23*	*05/21/25 08:07*	*1*
o-Terphenyl	*128*		*70 - 130*	*05/20/25 16:23*	*05/21/25 08:07*	*1*

Lab Sample ID: LCS 880-110558/2-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1051		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	1000	916.2		mg/Kg		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*124*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Lab Sample ID: LCSD 880-110558/3-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110558

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1015		mg/Kg		101	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	897.3		mg/Kg		90	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-110792/1-A
Matrix: Solid
Analysis Batch: 110801

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	0.395	mg/Kg			05/23/25 13:57	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-110792/2-A
Matrix: Solid
Analysis Batch: 110801

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	265.4		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-110792/3-A
Matrix: Solid
Analysis Batch: 110801

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	266.5		mg/Kg		107	90 - 110	0	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

GC VOA

Analysis Batch: 110789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Total/NA	Solid	8021B	110815
MB 880-110815/5-A	Method Blank	Total/NA	Solid	8021B	110815
LCS 880-110815/1-A	Lab Control Sample	Total/NA	Solid	8021B	110815
LCSD 880-110815/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	110815

Prep Batch: 110815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Total/NA	Solid	5030B	
MB 880-110815/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-110815/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-110815/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 110987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 110558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Total/NA	Solid	8015NM Prep	
MB 880-110558/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-110558/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-110558/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 110591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Total/NA	Solid	8015B NM	110558
MB 880-110558/1-A	Method Blank	Total/NA	Solid	8015B NM	110558
LCS 880-110558/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	110558
LCSD 880-110558/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	110558

Analysis Batch: 110673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 110792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Soluble	Solid	DI Leach	
MB 880-110792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-110792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-110792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 110801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8191-1	B - 9C - 4.75'	Soluble	Solid	300.0	110792
MB 880-110792/1-A	Method Blank	Soluble	Solid	300.0	110792
LCS 880-110792/2-A	Lab Control Sample	Soluble	Solid	300.0	110792
LCSD 880-110792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	110792

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Client Sample ID: B - 9C - 4.75'

Date Collected: 05/20/25 11:00
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8191-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	110815	05/23/25 10:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110789	05/24/25 01:35	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110987	05/24/25 01:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			110673	05/21/25 13:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110558	05/21/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110591	05/21/25 13:09	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	110792	05/23/25 08:20	SA	EET MID
Soluble	Analysis	300.0		1			110801	05/23/25 16:40	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 890-8191-1
SDG: LEA COUNTY, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-8191-1	B - 9C - 4.75'	Solid	05/20/25 11:00	05/20/25 15:00

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 890-8191-1
SDG Number: LEA COUNTY, NM

Login Number: 8191
List Number: 1
Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 890-8191-1
SDG Number: LEA COUNTY, NM

Login Number: 8191
List Number: 2
Creator: Laing, Edmundo

List Source: Eurofins Midland
List Creation: 05/21/25 07:59 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. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 5/13/2025 3:40:26 PM Revision 1

JOB DESCRIPTION

WLU 63
Lea County, NM

JOB NUMBER

880-57600-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
5/13/2025 3:40:26 PM
Revision 1

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

Client: Arcadis US Inc.
Project/Site: WLU 63

Laboratory Job ID: 880-57600-1
SDG: Lea County, NM

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Arcadis US Inc.
Project: WLU 63

Job ID: 880-57600-1

Job ID: 880-57600-1 Eurofins Midland

Job Narrative
880-57600-1

REVISION

The report being provided is a revision of the original report sent on 5/3/2025. The report (revision 1) is being revised due to Revised report to add TPH data per client activations of methods on hold..

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The samples were received on 5/1/2025 11:30 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 2.5°C.

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-4-0-2' (880-57600-4) and B-1-2.5' (880-57600-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-109695 and analytical batch 880-109713 was outside the control limits.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-109695 and analytical batch 880-109713 were outside control limits. Non-homogeneity is 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.

Diesel Range Organics
Method 8015MOD_NM: The method blank for preparation batch 880-109406 and analytical batch 880-109398 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-109407 and analytical batch 880-109400 was outside the control limits.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-109407 and analytical batch 880-109400 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: SW-1-0-2.5'

Date Collected: 04/30/25 11:10
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/08/25 08:06	05/08/25 11:49	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/08/25 08:06	05/08/25 11:49	1
Ethylbenzene	**0.00398**	**B**	0.00200	0.00109	mg/Kg		05/08/25 08:06	05/08/25 11:49	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/08/25 08:06	05/08/25 11:49	1
o-Xylene	**0.00373**	**F1**	0.00200	0.00158	mg/Kg		05/08/25 08:06	05/08/25 11:49	1
Xylenes, Total	**0.00373**	**J**	0.00400	0.00229	mg/Kg		05/08/25 08:06	05/08/25 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/08/25 08:06*	*05/08/25 11:49*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/08/25 08:06*	*05/08/25 11:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00771**		0.00400	0.00229	mg/Kg			05/08/25 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.8	15.1	mg/Kg			05/05/25 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**14.6**	**J B**	49.8	14.5	mg/Kg		05/05/25 10:02	05/05/25 12:29	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		05/05/25 10:02	05/05/25 12:29	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/05/25 10:02	05/05/25 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/05/25 10:02*	*05/05/25 12:29*	*1*
o-Terphenyl	*94*		*70 - 130*	*05/05/25 10:02*	*05/05/25 12:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**434**		9.96	0.393	mg/Kg			05/02/25 02:12	1

Client Sample ID: SW-2-0-2'

Date Collected: 04/30/25 11:20
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/08/25 08:06	05/08/25 12:10	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/08/25 08:06	05/08/25 12:10	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/08/25 08:06	05/08/25 12:10	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		05/08/25 08:06	05/08/25 12:10	1
o-Xylene	**0.00246**		0.00200	0.00158	mg/Kg		05/08/25 08:06	05/08/25 12:10	1
Xylenes, Total	**0.00246**	**J**	0.00399	0.00228	mg/Kg		05/08/25 08:06	05/08/25 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*05/08/25 08:06*	*05/08/25 12:10*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*05/08/25 08:06*	*05/08/25 12:10*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: SW-2-0-2'

Lab Sample ID: 880-57600-2
Matrix: Solid
Date Collected: 04/30/25 11:20
Date Received: 05/01/25 11:30

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00246	J	0.00399	0.00228	mg/Kg			05/08/25 12:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	79.4		49.9	15.1	mg/Kg			05/05/25 13:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	23.6	J B	49.9	14.5	mg/Kg		05/05/25 10:02	05/05/25 13:18	1
Diesel Range Organics (Over C10-C28)	55.8		49.9	15.1	mg/Kg		05/05/25 10:02	05/05/25 13:18	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:02	05/05/25 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*05/05/25 10:02*	*05/05/25 13:18*	*1*
o-Terphenyl	*86*		*70 - 130*	*05/05/25 10:02*	*05/05/25 13:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		9.98	0.394	mg/Kg			05/02/25 02:34	1

Client Sample ID: SW-3-0-2'

Lab Sample ID: 880-57600-3
Matrix: Solid
Date Collected: 04/30/25 11:30
Date Received: 05/01/25 11:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	368		50.0	15.1	mg/Kg			05/05/25 13:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	30.4	J B	50.0	14.5	mg/Kg		05/05/25 10:02	05/05/25 13:34	1
Diesel Range Organics (Over C10-C28)	338		50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 13:34	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*05/05/25 10:02*	*05/05/25 13:34*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/05/25 10:02*	*05/05/25 13:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.9		9.94	0.393	mg/Kg			05/02/25 02:41	1

Client Sample ID: SW-4-0-2'

Lab Sample ID: 880-57600-4
Matrix: Solid
Date Collected: 04/30/25 11:40
Date Received: 05/01/25 11:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00201	0.00140	mg/Kg		05/08/25 08:06	05/08/25 12:31	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: SW-4-0-2'

Date Collected: 04/30/25 11:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		05/08/25 08:06	05/08/25 12:31	1
Ethylbenzene	**0.00143**	**J B**	0.00201	0.00109	mg/Kg		05/08/25 08:06	05/08/25 12:31	1
m-Xylene & p-Xylene	<0.00229	U	0.00402	0.00229	mg/Kg		05/08/25 08:06	05/08/25 12:31	1
o-Xylene	<0.00159	U	0.00201	0.00159	mg/Kg		05/08/25 08:06	05/08/25 12:31	1
Xylenes, Total	<0.00229	U	0.00402	0.00229	mg/Kg		05/08/25 08:06	05/08/25 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*05/08/25 08:06*	*05/08/25 12:31*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/08/25 08:06*	*05/08/25 12:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00402	0.00229	mg/Kg			05/08/25 12:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.9	15.1	mg/Kg			05/05/25 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	49.9	14.5	mg/Kg		05/05/25 10:03	05/05/25 12:29	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 12:29	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*05/05/25 10:03*	*05/05/25 12:29*	*1*
o-Terphenyl	*84*		*70 - 130*	*05/05/25 10:03*	*05/05/25 12:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**165**		9.92	0.392	mg/Kg			05/02/25 02:48	1

Client Sample ID: B-1-2.5'

Date Collected: 04/30/25 11:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00199	0.00138	mg/Kg		05/08/25 08:06	05/08/25 12:51	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/08/25 08:06	05/08/25 12:51	1
Ethylbenzene	**0.00124**	**J B**	0.00199	0.00108	mg/Kg		05/08/25 08:06	05/08/25 12:51	1
m-Xylene & p-Xylene	<0.00227	U	0.00398	0.00227	mg/Kg		05/08/25 08:06	05/08/25 12:51	1
o-Xylene	<0.00157	U	0.00199	0.00157	mg/Kg		05/08/25 08:06	05/08/25 12:51	1
Xylenes, Total	<0.00227	U	0.00398	0.00227	mg/Kg		05/08/25 08:06	05/08/25 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*05/08/25 08:06*	*05/08/25 12:51*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*05/08/25 08:06*	*05/08/25 12:51*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-1-2.5'
Date Collected: 04/30/25 11:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-5
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00398	0.00227	mg/Kg			05/08/25 12:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**16.3**	**J**	50.0	15.1	mg/Kg			05/05/25 13:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**16.3**	**J B**	50.0	14.5	mg/Kg		05/05/25 10:02	05/05/25 13:51	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 13:51	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*05/05/25 10:02*	*05/05/25 13:51*	*1*
o-Terphenyl	*94*		*70 - 130*	*05/05/25 10:02*	*05/05/25 13:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**433**		9.98	0.394	mg/Kg			05/02/25 02:55	1

Client Sample ID: B-2-2'
Date Collected: 04/30/25 12:00
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00239**		0.00199	0.00139	mg/Kg		05/08/25 08:06	05/08/25 13:12	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/08/25 08:06	05/08/25 13:12	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		05/08/25 08:06	05/08/25 13:12	1
m-Xylene & p-Xylene	**0.00266**	**J**	0.00398	0.00228	mg/Kg		05/08/25 08:06	05/08/25 13:12	1
o-Xylene	**0.00299**		0.00199	0.00158	mg/Kg		05/08/25 08:06	05/08/25 13:12	1
Xylenes, Total	**0.00565**		0.00398	0.00228	mg/Kg		05/08/25 08:06	05/08/25 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/08/25 08:06*	*05/08/25 13:12*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*05/08/25 08:06*	*05/08/25 13:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00804**		0.00398	0.00228	mg/Kg			05/08/25 13:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**22.3**	**J**	49.8	15.1	mg/Kg			05/05/25 14:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**22.3**	**J B**	49.8	14.5	mg/Kg		05/05/25 10:02	05/05/25 14:07	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:07	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-2-2'
Date Collected: 04/30/25 12:00
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:07*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**105**		10.0	0.395	mg/Kg			05/02/25 03:17	1

Client Sample ID: B-3-2'
Date Collected: 04/30/25 12:10
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00234**		0.00198	0.00138	mg/Kg		05/08/25 08:06	05/08/25 13:32	1
Toluene	<0.00198	U	0.00198	0.00198	mg/Kg		05/08/25 08:06	05/08/25 13:32	1
Ethylbenzene	**0.00117**	**J B**	0.00198	0.00108	mg/Kg		05/08/25 08:06	05/08/25 13:32	1
m-Xylene & p-Xylene	<0.00226	U	0.00396	0.00226	mg/Kg		05/08/25 08:06	05/08/25 13:32	1
o-Xylene	<0.00157	U	0.00198	0.00157	mg/Kg		05/08/25 08:06	05/08/25 13:32	1
Xylenes, Total	<0.00226	U	0.00396	0.00226	mg/Kg		05/08/25 08:06	05/08/25 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*05/08/25 08:06*	*05/08/25 13:32*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/08/25 08:06*	*05/08/25 13:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00351**	**J**	0.00396	0.00226	mg/Kg			05/08/25 13:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**28.3**	**J**	49.9	15.1	mg/Kg			05/05/25 14:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**28.3**	**J B**	49.9	14.5	mg/Kg		05/05/25 10:02	05/05/25 14:23	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:23	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:23*	*1*
o-Terphenyl	*87*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.5**		10.0	0.397	mg/Kg			05/02/25 03:24	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-4-2'

Date Collected: 04/30/25 13:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00454**		0.00201	0.00140	mg/Kg		05/08/25 08:06	05/08/25 13:53	1
Toluene	**0.00488**		0.00201	0.00201	mg/Kg		05/08/25 08:06	05/08/25 13:53	1
Ethylbenzene	**0.00319**		0.00201	0.00109	mg/Kg		05/08/25 08:06	05/08/25 13:53	1
m-Xylene & p-Xylene	<0.00229	U	0.00402	0.00229	mg/Kg		05/08/25 08:06	05/08/25 13:53	1
o-Xylene	**0.00588**		0.00201	0.00159	mg/Kg		05/08/25 08:06	05/08/25 13:53	1
Xylenes, Total	**0.00588**		0.00402	0.00229	mg/Kg		05/08/25 08:06	05/08/25 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*05/08/25 08:06*	*05/08/25 13:53*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*05/08/25 08:06*	*05/08/25 13:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0185**		0.00402	0.00229	mg/Kg			05/08/25 13:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**20.9**	**J**	50.0	15.1	mg/Kg			05/05/25 14:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**20.9**	**J B**	50.0	14.5	mg/Kg		05/05/25 10:02	05/05/25 14:39	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:39	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:39*	*1*
o-Terphenyl	*84*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**78.9**		10.1	0.398	mg/Kg			05/02/25 03:31	1

Client Sample ID: B-5-2'

Date Collected: 04/30/25 13:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-9

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**116**		49.8	15.1	mg/Kg			05/05/25 14:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**20.4**	**J B**	49.8	14.5	mg/Kg		05/05/25 10:02	05/05/25 14:55	1
Diesel Range Organics (Over C10-C28)	**95.4**		49.8	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:55	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/05/25 10:02	05/05/25 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:55*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-5-2'

Date Collected: 04/30/25 13:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-9
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*86*		*70 - 130*	*05/05/25 10:02*	*05/05/25 14:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83.1**		9.94	0.393	mg/Kg			05/02/25 03:38	1

Client Sample ID: B-6-2'

Date Collected: 04/30/25 14:00
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-10
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00141	U	0.00202	0.00141	mg/Kg		05/08/25 08:06	05/08/25 14:13	1
Toluene	**0.00387**		0.00202	0.00202	mg/Kg		05/08/25 08:06	05/08/25 14:13	1
Ethylbenzene	**0.00432**		0.00202	0.00110	mg/Kg		05/08/25 08:06	05/08/25 14:13	1
m-Xylene & p-Xylene	<0.00231	U	0.00404	0.00231	mg/Kg		05/08/25 08:06	05/08/25 14:13	1
o-Xylene	**0.00218**		0.00202	0.00160	mg/Kg		05/08/25 08:06	05/08/25 14:13	1
Xylenes, Total	<0.00231	U	0.00404	0.00231	mg/Kg		05/08/25 08:06	05/08/25 14:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*05/08/25 08:06*	*05/08/25 14:13*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*05/08/25 08:06*	*05/08/25 14:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0104**		0.00404	0.00231	mg/Kg			05/08/25 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**49.1**	**J**	50.0	15.1	mg/Kg			05/05/25 18:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**14.5**	**J *-**	50.0	14.5	mg/Kg		05/05/25 10:03	05/05/25 18:07	1
Diesel Range Organics (Over C10-C28)	**34.6**	**J**	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:07	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*117*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:07*	*1*
o-Terphenyl	*108*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**96.8**		9.98	0.394	mg/Kg			05/02/25 03:45	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-7-2'
Date Collected: 04/30/25 14:10
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**101**		50.0	15.1	mg/Kg			05/05/25 18:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	50.0	14.5	mg/Kg		05/05/25 10:03	05/05/25 18:22	1
Diesel Range Organics (Over C10-C28)	**101**		50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:22	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:22*	*1*
o-Terphenyl	*101*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.1**		9.96	0.393	mg/Kg			05/02/25 03:52	1

Client Sample ID: B-8-2'
Date Collected: 04/30/25 14:20
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-12
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00139**	**J**	0.00199	0.00138	mg/Kg		05/08/25 08:06	05/08/25 14:34	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/08/25 08:06	05/08/25 14:34	1
Ethylbenzene	**0.00450**		0.00199	0.00108	mg/Kg		05/08/25 08:06	05/08/25 14:34	1
m-Xylene & p-Xylene	<0.00227	U	0.00398	0.00227	mg/Kg		05/08/25 08:06	05/08/25 14:34	1
o-Xylene	**0.00188**	**J**	0.00199	0.00157	mg/Kg		05/08/25 08:06	05/08/25 14:34	1
Xylenes, Total	<0.00227	U	0.00398	0.00227	mg/Kg		05/08/25 08:06	05/08/25 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*05/08/25 08:06*	*05/08/25 14:34*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/08/25 08:06*	*05/08/25 14:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00777**		0.00398	0.00227	mg/Kg			05/08/25 14:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**25.9**	**J**	50.0	15.1	mg/Kg			05/05/25 18:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	50.0	14.5	mg/Kg		05/05/25 10:03	05/05/25 18:38	1
Diesel Range Organics (Over C10-C28)	**25.9**	**J**	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:38	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:38*	*1*

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Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-8-2'
Date Collected: 04/30/25 14:20
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-12
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*95*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**89.5**		9.96	0.393	mg/Kg			05/02/25 04:14	1

Client Sample ID: B-9-2'
Date Collected: 04/30/25 14:30
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**214**		49.9	15.1	mg/Kg			05/05/25 18:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	49.9	14.5	mg/Kg		05/05/25 10:03	05/05/25 18:53	1
Diesel Range Organics (Over C10-C28)	**214**		49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:53	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*102*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:53*	*1*
o-Terphenyl	*96*		*70 - 130*	*05/05/25 10:03*	*05/05/25 18:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		9.98	0.394	mg/Kg			05/02/25 04:21	1

Client Sample ID: B-10-2'
Date Collected: 04/30/25 14:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00673**		0.00199	0.00139	mg/Kg		05/08/25 08:06	05/08/25 14:54	1
Toluene	**0.00897**		0.00199	0.00199	mg/Kg		05/08/25 08:06	05/08/25 14:54	1
Ethylbenzene	**0.00187**	**J**	0.00199	0.00108	mg/Kg		05/08/25 08:06	05/08/25 14:54	1
m-Xylene & p-Xylene	**0.00507**		0.00398	0.00228	mg/Kg		05/08/25 08:06	05/08/25 14:54	1
o-Xylene	<0.00158	U	0.00199	0.00158	mg/Kg		05/08/25 08:06	05/08/25 14:54	1
Xylenes, Total	**0.00507**		0.00398	0.00228	mg/Kg		05/08/25 08:06	05/08/25 14:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*05/08/25 08:06*	*05/08/25 14:54*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*05/08/25 08:06*	*05/08/25 14:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0226**		0.00398	0.00228	mg/Kg			05/08/25 14:54	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-10-2'
Date Collected: 04/30/25 14:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.9	15.1	mg/Kg			05/05/25 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**14.8**	**J *-**	49.9	14.5	mg/Kg		05/05/25 10:03	05/05/25 19:10	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 19:10	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*05/05/25 10:03*	*05/05/25 19:10*	*1*
o-Terphenyl	*93*		*70 - 130*	*05/05/25 10:03*	*05/05/25 19:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		10.0	0.396	mg/Kg			05/02/25 04:42	1

Client Sample ID: B-11-2'
Date Collected: 04/30/25 14:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-15
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**109**		50.0	15.1	mg/Kg			05/05/25 19:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	50.0	14.5	mg/Kg		05/05/25 10:03	05/05/25 19:25	1
Diesel Range Organics (Over C10-C28)	**109**		50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 19:25	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*05/05/25 10:03*	*05/05/25 19:25*	*1*
o-Terphenyl	*79*		*70 - 130*	*05/05/25 10:03*	*05/05/25 19:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**125**		10.1	0.399	mg/Kg			05/02/25 04:49	1

Client Sample ID: B-12-2'
Date Collected: 04/30/25 14:30
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-16
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**174**		49.9	15.1	mg/Kg			05/05/25 19:40	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-12-2'

Date Collected: 04/30/25 14:30
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-16

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	49.9	14.5	mg/Kg		05/05/25 10:03	05/05/25 19:40	1
Diesel Range Organics (Over C10-C28)	**174**		49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 19:40	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/05/25 10:03	05/05/25 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*05/05/25 10:03*	*05/05/25 19:40*	*1*
o-Terphenyl	*93*		*70 - 130*	*05/05/25 10:03*	*05/05/25 19:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		9.94	0.393	mg/Kg			05/02/25 04:57	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-57600-1	SW-1-0-2.5'	103	82
880-57600-1 MS	SW-1-0-2.5'	101	95
880-57600-1 MSD	SW-1-0-2.5'	102	118
880-57600-2	SW-2-0-2'	76	72
880-57600-4	SW-4-0-2'	82	68 S1-
880-57600-5	B-1-2.5'	74	70
880-57600-6	B-2-2'	90	71
880-57600-7	B-3-2'	82	75
880-57600-8	B-4-2'	85	80
880-57600-10	B-6-2'	80	73
880-57600-12	B-8-2'	91	87
880-57600-14	B-10-2'	83	79
LCS 880-109695/1-A	Lab Control Sample	93	90
LCSD 880-109695/2-A	Lab Control Sample Dup	96	96
MB 880-109695/5-A	Method Blank	81	59 S1-

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-56959-A-34-C MB	Method Blank	83	83
880-57600-1	SW-1-0-2.5'	95	94
880-57600-1 MS	SW-1-0-2.5'	99	90
880-57600-1 MSD	SW-1-0-2.5'	98	89
880-57600-2	SW-2-0-2'	84	86
880-57600-3	SW-3-0-2'	77	85
880-57600-4	SW-4-0-2'	86	84
880-57600-4 MS	SW-4-0-2'	76	80
880-57600-4 MSD	SW-4-0-2'	96	88
880-57600-5	B-1-2.5'	92	94
880-57600-6	B-2-2'	90	92
880-57600-7	B-3-2'	81	87
880-57600-8	B-4-2'	80	84
880-57600-9	B-5-2'	81	86
880-57600-10	B-6-2'	117	108
880-57600-11	B-7-2'	111	101
880-57600-12	B-8-2'	105	95
880-57600-13	B-9-2'	102	96
880-57600-14	B-10-2'	103	93
880-57600-15	B-11-2'	85	79
880-57600-16	B-12-2'	102	93
LCS 880-109406/2-A	Lab Control Sample	94	100
LCS 880-109407/2-A	Lab Control Sample	88	92
LCSD 880-109406/3-A	Lab Control Sample Dup	95	99

Surrogate Summary

Client: Arcadis US Inc. Job ID: 880-57600-1
Project/Site: WLU 63 SDG: Lea County, NM

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
LCSD 880-109407/3-A	Lab Control Sample Dup	81	85								
MB 880-109406/1-A	Method Blank	87	86								
MB 880-109407/1-A	Method Blank	54 S1-	54 S1-								

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-109695/5-A
Matrix: Solid
Analysis Batch: 109713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/08/25 08:06	05/08/25 11:28	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/08/25 08:06	05/08/25 11:28	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/08/25 08:06	05/08/25 11:28	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/08/25 08:06	05/08/25 11:28	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/08/25 08:06	05/08/25 11:28	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		05/08/25 08:06	05/08/25 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*05/08/25 08:06*	*05/08/25 11:28*	*1*
1,4-Difluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*05/08/25 08:06*	*05/08/25 11:28*	*1*

Lab Sample ID: LCS 880-109695/1-A
Matrix: Solid
Analysis Batch: 109713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08265		mg/Kg		83	70 - 130
Toluene	0.100	0.08922		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.09296		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.200	0.1625		mg/Kg		81	70 - 130
o-Xylene	0.100	0.09335		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: LCSD 880-109695/2-A
Matrix: Solid
Analysis Batch: 109713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 109695

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07233		mg/Kg		72	70 - 130	13	35
Toluene	0.100	0.09682		mg/Kg		97	70 - 130	8	35
Ethylbenzene	0.100	0.1038		mg/Kg		104	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.1769		mg/Kg		88	70 - 130	8	35
o-Xylene	0.100	0.1034		mg/Kg		103	70 - 130	10	35

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

Lab Sample ID: 880-57600-1 MS
Matrix: Solid
Analysis Batch: 109713

Client Sample ID: SW-1-0-2.5'
Prep Type: Total/NA
Prep Batch: 109695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00139	U	0.100	0.07068		mg/Kg		71	70 - 130
Toluene	<0.00200	U	0.100	0.07529		mg/Kg		75	70 - 130

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

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

Lab Sample ID: 880-57600-1 MS
Matrix: Solid
Analysis Batch: 109713

Client Sample ID: SW-1-0-2.5'
Prep Type: Total/NA
Prep Batch: 109695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.00398	B	0.100	0.08269		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00229	U	0.200	0.1483		mg/Kg		74	70 - 130
o-Xylene	0.00373	F1	0.100	0.07136	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-57600-1 MSD
Matrix: Solid
Analysis Batch: 109713

Client Sample ID: SW-1-0-2.5'
Prep Type: Total/NA
Prep Batch: 109695

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00139	U	0.100	0.09829		mg/Kg		98	70 - 130	33	35
Toluene	<0.00200	U	0.100	0.1010		mg/Kg		101	70 - 130	29	35
Ethylbenzene	0.00398	B	0.100	0.1079		mg/Kg		104	70 - 130	26	35
m-Xylene & p-Xylene	<0.00229	U	0.200	0.1852		mg/Kg		93	70 - 130	22	35
o-Xylene	0.00373	F1	0.100	0.09584		mg/Kg		92	70 - 130	29	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

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

Lab Sample ID: MB 880-109406/1-A
Matrix: Solid
Analysis Batch: 109398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16.55	J	50.0	14.5	mg/Kg		05/05/25 10:02	05/05/25 10:02	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 10:02	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:02	05/05/25 10:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*05/05/25 10:02*	*05/05/25 10:02*	*1*
o-Terphenyl	*86*		*70 - 130*	*05/05/25 10:02*	*05/05/25 10:02*	*1*

Lab Sample ID: LCS 880-109406/2-A
Matrix: Solid
Analysis Batch: 109398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	802.7		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	1000	828.8		mg/Kg		83	70 - 130

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

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

Lab Sample ID: LCS 880-109406/2-A
Matrix: Solid
Analysis Batch: 109398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109406

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-109406/3-A
Matrix: Solid
Analysis Batch: 109398

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 109406

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	844.6		mg/Kg		84	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	862.2		mg/Kg		86	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-57600-1 MS
Matrix: Solid
Analysis Batch: 109398

Client Sample ID: SW-1-0-2.5'
Prep Type: Total/NA
Prep Batch: 109406

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	14.6	J B	1000	803.9		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	<15.1	U	1000	752.4		mg/Kg		75	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 880-57600-1 MSD
Matrix: Solid
Analysis Batch: 109398

Client Sample ID: SW-1-0-2.5'
Prep Type: Total/NA
Prep Batch: 109406

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	14.6	J B	1000	802.2		mg/Kg		79	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<15.1	U	1000	752.3		mg/Kg		75	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	89		70 - 130

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

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

Lab Sample ID: 880-56959-A-34-C MB
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/05/25 16:45	05/05/25 15:45	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 16:45	05/05/25 15:45	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 16:45	05/05/25 15:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*05/05/25 16:45*	*05/05/25 15:45*	*1*
o-Terphenyl	*83*		*70 - 130*	*05/05/25 16:45*	*05/05/25 15:45*	*1*

Lab Sample ID: MB 880-109407/1-A
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/05/25 10:03	05/05/25 10:02	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 10:02	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/05/25 10:03	05/05/25 10:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*05/05/25 10:03*	*05/05/25 10:02*	*1*
o-Terphenyl	*54*	*S1-*	*70 - 130*	*05/05/25 10:03*	*05/05/25 10:02*	*1*

Lab Sample ID: LCS 880-109407/2-A
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109407

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	750.9		mg/Kg		75	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	755.6		mg/Kg		76	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: LCSD 880-109407/3-A
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 109407

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	681.8	*-	mg/Kg		68	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	698.3		mg/Kg		70	70 - 130	8	20

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-109407/3-A
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 109407

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 880-57600-4 MS
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: SW-4-0-2'
Prep Type: Total/NA
Prep Batch: 109407

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	998	713.8		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	<15.1	U	998	719.9		mg/Kg		72	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	76		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: 880-57600-4 MSD
Matrix: Solid
Analysis Batch: 109400

Client Sample ID: SW-4-0-2'
Prep Type: Total/NA
Prep Batch: 109407

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<14.5	U *-	998	774.0		mg/Kg		78	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<15.1	U	998	748.7		mg/Kg		75	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	88		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-109237/1-A
Matrix: Solid
Analysis Batch: 109242

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	10.0	0.395	mg/Kg			05/02/25 01:51	1

Lab Sample ID: LCS 880-109237/2-A
Matrix: Solid
Analysis Batch: 109242

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	230.8		mg/Kg		92	90 - 110

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-109237/3-A
Matrix: Solid
Analysis Batch: 109242

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	232.4		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-57600-1 MS
Matrix: Solid
Analysis Batch: 109242

Client Sample ID: SW-1-0-2.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	434		249	686.2		mg/Kg		101	90 - 110		

Lab Sample ID: 880-57600-1 MSD
Matrix: Solid
Analysis Batch: 109242

Client Sample ID: SW-1-0-2.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	434		249	689.3		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 880-57600-11 MS
Matrix: Solid
Analysis Batch: 109242

Client Sample ID: B-7-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	86.1		249	332.9		mg/Kg		99	90 - 110		

Lab Sample ID: 880-57600-11 MSD
Matrix: Solid
Analysis Batch: 109242

Client Sample ID: B-7-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	86.1		249	331.9		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

GC VOA

Prep Batch: 109695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Total/NA	Solid	5030B	
880-57600-2	SW-2-0-2'	Total/NA	Solid	5030B	
880-57600-4	SW-4-0-2'	Total/NA	Solid	5030B	
880-57600-5	B-1-2.5'	Total/NA	Solid	5030B	
880-57600-6	B-2-2'	Total/NA	Solid	5030B	
880-57600-7	B-3-2'	Total/NA	Solid	5030B	
880-57600-8	B-4-2'	Total/NA	Solid	5030B	
880-57600-10	B-6-2'	Total/NA	Solid	5030B	
880-57600-12	B-8-2'	Total/NA	Solid	5030B	
880-57600-14	B-10-2'	Total/NA	Solid	5030B	
MB 880-109695/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-109695/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-109695/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-57600-1 MS	SW-1-0-2.5'	Total/NA	Solid	5030B	
880-57600-1 MSD	SW-1-0-2.5'	Total/NA	Solid	5030B	

Analysis Batch: 109713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Total/NA	Solid	8021B	109695
880-57600-2	SW-2-0-2'	Total/NA	Solid	8021B	109695
880-57600-4	SW-4-0-2'	Total/NA	Solid	8021B	109695
880-57600-5	B-1-2.5'	Total/NA	Solid	8021B	109695
880-57600-6	B-2-2'	Total/NA	Solid	8021B	109695
880-57600-7	B-3-2'	Total/NA	Solid	8021B	109695
880-57600-8	B-4-2'	Total/NA	Solid	8021B	109695
880-57600-10	B-6-2'	Total/NA	Solid	8021B	109695
880-57600-12	B-8-2'	Total/NA	Solid	8021B	109695
880-57600-14	B-10-2'	Total/NA	Solid	8021B	109695
MB 880-109695/5-A	Method Blank	Total/NA	Solid	8021B	109695
LCS 880-109695/1-A	Lab Control Sample	Total/NA	Solid	8021B	109695
LCSD 880-109695/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	109695
880-57600-1 MS	SW-1-0-2.5'	Total/NA	Solid	8021B	109695
880-57600-1 MSD	SW-1-0-2.5'	Total/NA	Solid	8021B	109695

Analysis Batch: 109752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Total/NA	Solid	Total BTEX	
880-57600-2	SW-2-0-2'	Total/NA	Solid	Total BTEX	
880-57600-4	SW-4-0-2'	Total/NA	Solid	Total BTEX	
880-57600-5	B-1-2.5'	Total/NA	Solid	Total BTEX	
880-57600-6	B-2-2'	Total/NA	Solid	Total BTEX	
880-57600-7	B-3-2'	Total/NA	Solid	Total BTEX	
880-57600-8	B-4-2'	Total/NA	Solid	Total BTEX	
880-57600-10	B-6-2'	Total/NA	Solid	Total BTEX	
880-57600-12	B-8-2'	Total/NA	Solid	Total BTEX	
880-57600-14	B-10-2'	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

GC Semi VOA

Analysis Batch: 109398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Total/NA	Solid	8015B NM	109406
880-57600-2	SW-2-0-2'	Total/NA	Solid	8015B NM	109406
880-57600-3	SW-3-0-2'	Total/NA	Solid	8015B NM	109406
880-57600-5	B-1-2.5'	Total/NA	Solid	8015B NM	109406
880-57600-6	B-2-2'	Total/NA	Solid	8015B NM	109406
880-57600-7	B-3-2'	Total/NA	Solid	8015B NM	109406
880-57600-8	B-4-2'	Total/NA	Solid	8015B NM	109406
880-57600-9	B-5-2'	Total/NA	Solid	8015B NM	109406
MB 880-109406/1-A	Method Blank	Total/NA	Solid	8015B NM	109406
LCS 880-109406/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	109406
LCSD 880-109406/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	109406
880-57600-1 MS	SW-1-0-2.5'	Total/NA	Solid	8015B NM	109406
880-57600-1 MSD	SW-1-0-2.5'	Total/NA	Solid	8015B NM	109406

Analysis Batch: 109400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-4	SW-4-0-2'	Total/NA	Solid	8015B NM	109407
880-57600-10	B-6-2'	Total/NA	Solid	8015B NM	109407
880-57600-11	B-7-2'	Total/NA	Solid	8015B NM	109407
880-57600-12	B-8-2'	Total/NA	Solid	8015B NM	109407
880-57600-13	B-9-2'	Total/NA	Solid	8015B NM	109407
880-57600-14	B-10-2'	Total/NA	Solid	8015B NM	109407
880-57600-15	B-11-2'	Total/NA	Solid	8015B NM	109407
880-57600-16	B-12-2'	Total/NA	Solid	8015B NM	109407
880-56959-A-34-C MB	Method Blank	Total/NA	Solid	8015B NM	109407
MB 880-109407/1-A	Method Blank	Total/NA	Solid	8015B NM	109407
LCS 880-109407/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	109407
LCSD 880-109407/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	109407
880-57600-4 MS	SW-4-0-2'	Total/NA	Solid	8015B NM	109407
880-57600-4 MSD	SW-4-0-2'	Total/NA	Solid	8015B NM	109407

Prep Batch: 109406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Total/NA	Solid	8015NM Prep	
880-57600-2	SW-2-0-2'	Total/NA	Solid	8015NM Prep	
880-57600-3	SW-3-0-2'	Total/NA	Solid	8015NM Prep	
880-57600-5	B-1-2.5'	Total/NA	Solid	8015NM Prep	
880-57600-6	B-2-2'	Total/NA	Solid	8015NM Prep	
880-57600-7	B-3-2'	Total/NA	Solid	8015NM Prep	
880-57600-8	B-4-2'	Total/NA	Solid	8015NM Prep	
880-57600-9	B-5-2'	Total/NA	Solid	8015NM Prep	
MB 880-109406/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-109406/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-109406/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-57600-1 MS	SW-1-0-2.5'	Total/NA	Solid	8015NM Prep	
880-57600-1 MSD	SW-1-0-2.5'	Total/NA	Solid	8015NM Prep	

Prep Batch: 109407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-4	SW-4-0-2'	Total/NA	Solid	8015NM Prep	
880-57600-10	B-6-2'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

GC Semi VOA (Continued)

Prep Batch: 109407 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-11	B-7-2'	Total/NA	Solid	8015NM Prep	
880-57600-12	B-8-2'	Total/NA	Solid	8015NM Prep	
880-57600-13	B-9-2'	Total/NA	Solid	8015NM Prep	
880-57600-14	B-10-2'	Total/NA	Solid	8015NM Prep	
880-57600-15	B-11-2'	Total/NA	Solid	8015NM Prep	
880-57600-16	B-12-2'	Total/NA	Solid	8015NM Prep	
880-56959-A-34-C MB	Method Blank	Total/NA	Solid	8015NM Prep	
MB 880-109407/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-109407/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-109407/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-57600-4 MS	SW-4-0-2'	Total/NA	Solid	8015NM Prep	
880-57600-4 MSD	SW-4-0-2'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 109470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Total/NA	Solid	8015 NM	
880-57600-2	SW-2-0-2'	Total/NA	Solid	8015 NM	
880-57600-3	SW-3-0-2'	Total/NA	Solid	8015 NM	
880-57600-4	SW-4-0-2'	Total/NA	Solid	8015 NM	
880-57600-5	B-1-2.5'	Total/NA	Solid	8015 NM	
880-57600-6	B-2-2'	Total/NA	Solid	8015 NM	
880-57600-7	B-3-2'	Total/NA	Solid	8015 NM	
880-57600-8	B-4-2'	Total/NA	Solid	8015 NM	
880-57600-9	B-5-2'	Total/NA	Solid	8015 NM	
880-57600-10	B-6-2'	Total/NA	Solid	8015 NM	
880-57600-11	B-7-2'	Total/NA	Solid	8015 NM	
880-57600-12	B-8-2'	Total/NA	Solid	8015 NM	
880-57600-13	B-9-2'	Total/NA	Solid	8015 NM	
880-57600-14	B-10-2'	Total/NA	Solid	8015 NM	
880-57600-15	B-11-2'	Total/NA	Solid	8015 NM	
880-57600-16	B-12-2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 109237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Soluble	Solid	DI Leach	
880-57600-2	SW-2-0-2'	Soluble	Solid	DI Leach	
880-57600-3	SW-3-0-2'	Soluble	Solid	DI Leach	
880-57600-4	SW-4-0-2'	Soluble	Solid	DI Leach	
880-57600-5	B-1-2.5'	Soluble	Solid	DI Leach	
880-57600-6	B-2-2'	Soluble	Solid	DI Leach	
880-57600-7	B-3-2'	Soluble	Solid	DI Leach	
880-57600-8	B-4-2'	Soluble	Solid	DI Leach	
880-57600-9	B-5-2'	Soluble	Solid	DI Leach	
880-57600-10	B-6-2'	Soluble	Solid	DI Leach	
880-57600-11	B-7-2'	Soluble	Solid	DI Leach	
880-57600-12	B-8-2'	Soluble	Solid	DI Leach	
880-57600-13	B-9-2'	Soluble	Solid	DI Leach	
880-57600-14	B-10-2'	Soluble	Solid	DI Leach	
880-57600-15	B-11-2'	Soluble	Solid	DI Leach	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

HPLC/IC (Continued)

Leach Batch: 109237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-16	B-12-2'	Soluble	Solid	DI Leach	
MB 880-109237/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-109237/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-109237/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-57600-1 MS	SW-1-0-2.5'	Soluble	Solid	DI Leach	
880-57600-1 MSD	SW-1-0-2.5'	Soluble	Solid	DI Leach	
880-57600-11 MS	B-7-2'	Soluble	Solid	DI Leach	
880-57600-11 MSD	B-7-2'	Soluble	Solid	DI Leach	

Analysis Batch: 109242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57600-1	SW-1-0-2.5'	Soluble	Solid	300.0	109237
880-57600-2	SW-2-0-2'	Soluble	Solid	300.0	109237
880-57600-3	SW-3-0-2'	Soluble	Solid	300.0	109237
880-57600-4	SW-4-0-2'	Soluble	Solid	300.0	109237
880-57600-5	B-1-2.5'	Soluble	Solid	300.0	109237
880-57600-6	B-2-2'	Soluble	Solid	300.0	109237
880-57600-7	B-3-2'	Soluble	Solid	300.0	109237
880-57600-8	B-4-2'	Soluble	Solid	300.0	109237
880-57600-9	B-5-2'	Soluble	Solid	300.0	109237
880-57600-10	B-6-2'	Soluble	Solid	300.0	109237
880-57600-11	B-7-2'	Soluble	Solid	300.0	109237
880-57600-12	B-8-2'	Soluble	Solid	300.0	109237
880-57600-13	B-9-2'	Soluble	Solid	300.0	109237
880-57600-14	B-10-2'	Soluble	Solid	300.0	109237
880-57600-15	B-11-2'	Soluble	Solid	300.0	109237
880-57600-16	B-12-2'	Soluble	Solid	300.0	109237
MB 880-109237/1-A	Method Blank	Soluble	Solid	300.0	109237
LCS 880-109237/2-A	Lab Control Sample	Soluble	Solid	300.0	109237
LCSD 880-109237/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	109237
880-57600-1 MS	SW-1-0-2.5'	Soluble	Solid	300.0	109237
880-57600-1 MSD	SW-1-0-2.5'	Soluble	Solid	300.0	109237
880-57600-11 MS	B-7-2'	Soluble	Solid	300.0	109237
880-57600-11 MSD	B-7-2'	Soluble	Solid	300.0	109237

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: SW-1-0-2.5'
Date Collected: 04/30/25 11:10
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.00 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 11:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 11:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 12:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 12:29	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 02:12	CH	EET MID

Client Sample ID: SW-2-0-2'
Date Collected: 04/30/25 11:20
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 12:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 12:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 13:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 13:18	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 02:34	CH	EET MID

Client Sample ID: SW-3-0-2'
Date Collected: 04/30/25 11:30
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-3
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			109470	05/05/25 13:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 13:34	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 02:41	CH	EET MID

Client Sample ID: SW-4-0-2'
Date Collected: 04/30/25 11:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 12:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 12:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 12:29	TKC	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: SW-4-0-2'
Date Collected: 04/30/25 11:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-4
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			5.04 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 02:48	CH	EET MID

Client Sample ID: B-1-2.5'
Date Collected: 04/30/25 11:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 12:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 12:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 13:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 13:51	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 02:55	CH	EET MID

Client Sample ID: B-2-2'
Date Collected: 04/30/25 12:00
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 13:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 13:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 14:07	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 14:07	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 03:17	CH	EET MID

Client Sample ID: B-3-2'
Date Collected: 04/30/25 12:10
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.05 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 13:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 13:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 14:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 14:23	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 03:24	CH	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-4-2'
Date Collected: 04/30/25 13:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 13:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 13:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 14:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 14:39	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 03:31	CH	EET MID

Client Sample ID: B-5-2'
Date Collected: 04/30/25 13:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-9
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	8015 NM		1			109470	05/05/25 14:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	109406	05/05/25 10:02	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109398	05/05/25 14:55	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 03:38	CH	EET MID

Client Sample ID: B-6-2'
Date Collected: 04/30/25 14:00
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.95 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 14:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 14:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 18:07	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 18:07	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 03:45	CH	EET MID

Client Sample ID: B-7-2'
Date Collected: 04/30/25 14:10
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-11
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			109470	05/05/25 18:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 18:22	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 03:52	CH	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-8-2'
Date Collected: 04/30/25 14:20
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 14:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 14:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 18:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 18:38	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 04:14	CH	EET MID

Client Sample ID: B-9-2'
Date Collected: 04/30/25 14:30
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-13
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			109470	05/05/25 18:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 18:53	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 04:21	CH	EET MID

Client Sample ID: B-10-2'
Date Collected: 04/30/25 14:40
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	109695	05/08/25 08:06	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109713	05/08/25 14:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109752	05/08/25 14:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			109470	05/05/25 19:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 19:10	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 04:42	CH	EET MID

Client Sample ID: B-11-2'
Date Collected: 04/30/25 14:50
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-15
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			109470	05/05/25 19:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 19:25	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 04:49	CH	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Client Sample ID: B-12-2'

Date Collected: 04/30/25 14:30
Date Received: 05/01/25 11:30

Lab Sample ID: 880-57600-16

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			109470	05/05/25 19:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	109407	05/05/25 10:03	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109400	05/05/25 19:40	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	109237	05/01/25 14:53	SA	EET MID
Soluble	Analysis	300.0		1			109242	05/02/25 04:57	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57600-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-57600-1	SW-1-0-2.5'	Solid	04/30/25 11:10	05/01/25 11:30
880-57600-2	SW-2-0-2'	Solid	04/30/25 11:20	05/01/25 11:30
880-57600-3	SW-3-0-2'	Solid	04/30/25 11:30	05/01/25 11:30
880-57600-4	SW-4-0-2'	Solid	04/30/25 11:40	05/01/25 11:30
880-57600-5	B-1-2.5'	Solid	04/30/25 11:50	05/01/25 11:30
880-57600-6	B-2-2'	Solid	04/30/25 12:00	05/01/25 11:30
880-57600-7	B-3-2'	Solid	04/30/25 12:10	05/01/25 11:30
880-57600-8	B-4-2'	Solid	04/30/25 13:40	05/01/25 11:30
880-57600-9	B-5-2'	Solid	04/30/25 13:50	05/01/25 11:30
880-57600-10	B-6-2'	Solid	04/30/25 14:00	05/01/25 11:30
880-57600-11	B-7-2'	Solid	04/30/25 14:10	05/01/25 11:30
880-57600-12	B-8-2'	Solid	04/30/25 14:20	05/01/25 11:30
880-57600-13	B-9-2'	Solid	04/30/25 14:30	05/01/25 11:30
880-57600-14	B-10-2'	Solid	04/30/25 14:40	05/01/25 11:30
880-57600-15	B-11-2'	Solid	04/30/25 14:50	05/01/25 11:30
880-57600-16	B-12-2'	Solid	04/30/25 14:30	05/01/25 11:30

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Heath B	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.1
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page:
Company: Arcadis US Inc.	PWSID:			
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): 24 hr rush			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: ~~NM Sites~~ WLH 63	Project #: ~~88002020~~ 30280688.00004			
Site: Lea County, NM	SSOW#:			

880-57600 Chain of Custody

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SW-1-0-2.5'	4/30/25	1110	C	Solid			X		TPH 24hr rush
SW-2-0-2'		1120		Solid			X		
SW-3-0-2'		1130		Solid			X		Hold BTEX, Cl
SW-4-0-2'		1140		Solid			X		
B-1-2.5'		1150		Solid			X		
B-2-2'		1200		Solid			X		
B-3-2'		1210		Solid			X		
B-4-2'		1340		Solid			X		
B-5-2'		1350		Solid			X		
B-6-2'		1400		Solid			X		
B-7-2'	"	1410	"	Solid			X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		5/1/25 1130	Arcadis		5/1/25 1130	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6/2.5 -.1 IR8

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: HB	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.1
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0298	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~1 of 14~~ 2 of 2
Company: Arcadis US Inc.	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			Preservation Codes: N - None
City: Midland	TAT Requested (days): 24 hr rush			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: ~~NM Sites~~ WLU 63	Project #: ~~88002020~~ 30270688.00004			Other:
Site: Lea County, NM	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Filtered Sample (Yes or No)	m MS/MS	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
B-8-2'	4/30/25	1420	C	Solid			X		TPH 24 hr rush
B-9-2'	"	1430	"	Solid			X		
B-10-2'	"	1440	"	Solid			X		Hold BTEX, Cl
B-11-2'	"	1450	"	Solid			X		
B-12-2'	X	1500	X	Solid			X		
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5/1/25 1130	Arcadis			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 880-57600-1
SDG Number: Lea County, NM

Login Number: 57600
List Number: 1
Creator: Vasquez, Julisa

List Source: Eurofins Midland

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 6/6/2025 12:33:50 PM

JOB DESCRIPTION

WLLU 63

JOB NUMBER

880-57918-2

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Eurofins Midland

Job Notes

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

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

Authorization

Generated
6/6/2025 12:33:50 PM

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

Client: Arcadis US Inc.
Project/Site: WLLU 63

Laboratory Job ID: 880-57918-2

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc. Job ID: 880-57918-2
Project/Site: WLLU 63

Qualifiers

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Arcadis US Inc.
Project: WLLU 63

Job ID: 880-57918-2

Job ID: 880-57918-2 Eurofins Midland

Job Narrative
880-57918-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The samples were received on 5/8/2025 1:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C.

GC VOA
Method 8021B: The following samples were analyzed outside of analytical holding time due to being on hold>: SW-3A-0-4' (880-57918-1) and SW-5-0-4' (880-57918-2).

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

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Client Sample ID: SW-3A-0-4'

Lab Sample ID: 880-57918-1
Matrix: Solid
Date Collected: 05/07/25 15:50
Date Received: 05/08/25 13:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U H	0.00200	0.00139	mg/Kg		06/05/25 09:07	06/05/25 16:32	1
Toluene	<0.00200	U H	0.00200	0.00200	mg/Kg		06/05/25 09:07	06/05/25 16:32	1
Ethylbenzene	<0.00109	U H	0.00200	0.00109	mg/Kg		06/05/25 09:07	06/05/25 16:32	1
m-Xylene & p-Xylene	<0.00228	U H	0.00399	0.00228	mg/Kg		06/05/25 09:07	06/05/25 16:32	1
o-Xylene	**0.00280**	**H**	0.00200	0.00158	mg/Kg		06/05/25 09:07	06/05/25 16:32	1
Xylenes, Total	**0.00280**	**J H**	0.00399	0.00228	mg/Kg		06/05/25 09:07	06/05/25 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*06/05/25 09:07*	*06/05/25 16:32*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/05/25 09:07*	*06/05/25 16:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00280**	**J**	0.00399	0.00228	mg/Kg			06/05/25 16:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**108**		9.92	0.392	mg/Kg			06/04/25 20:06	1

Client Sample ID: SW-5-0-4'

Lab Sample ID: 880-57918-2
Matrix: Solid
Date Collected: 05/07/25 16:00
Date Received: 05/08/25 13:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U H	0.00201	0.00140	mg/Kg		06/05/25 09:07	06/05/25 16:53	1
Toluene	<0.00201	U H	0.00201	0.00201	mg/Kg		06/05/25 09:07	06/05/25 16:53	1
Ethylbenzene	<0.00109	U H	0.00201	0.00109	mg/Kg		06/05/25 09:07	06/05/25 16:53	1
m-Xylene & p-Xylene	<0.00229	U H	0.00402	0.00229	mg/Kg		06/05/25 09:07	06/05/25 16:53	1
o-Xylene	**0.00215**	**H**	0.00201	0.00159	mg/Kg		06/05/25 09:07	06/05/25 16:53	1
Xylenes, Total	<0.00229	U H	0.00402	0.00229	mg/Kg		06/05/25 09:07	06/05/25 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*06/05/25 09:07*	*06/05/25 16:53*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/05/25 09:07*	*06/05/25 16:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00402	0.00229	mg/Kg			06/05/25 16:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.8**		9.94	0.393	mg/Kg			06/04/25 20:13	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

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)										
880-57918-1	SW-3A-0-4'	95	94										
880-57918-2	SW-5-0-4'	89	94										
LCS 880-111560/1-A	Lab Control Sample	94	99										
LCSD 880-111560/2-A	Lab Control Sample Dup	110	104										
MB 880-111560/5-A	Method Blank	88	96										

Surrogate Legend

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

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-111560/5-A
Matrix: Solid
Analysis Batch: 111550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		06/05/25 09:07	06/05/25 11:00	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		06/05/25 09:07	06/05/25 11:00	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		06/05/25 09:07	06/05/25 11:00	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		06/05/25 09:07	06/05/25 11:00	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		06/05/25 09:07	06/05/25 11:00	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		06/05/25 09:07	06/05/25 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*06/05/25 09:07*	*06/05/25 11:00*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*06/05/25 09:07*	*06/05/25 11:00*	*1*

Lab Sample ID: LCS 880-111560/1-A
Matrix: Solid
Analysis Batch: 111550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111560

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09696		mg/Kg		97	70 - 130		
Toluene			0.100	0.08616		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.08768		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1689		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.08150		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-111560/2-A
Matrix: Solid
Analysis Batch: 111550

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 111560

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1042		mg/Kg		104	70 - 130	7	35
Toluene			0.100	0.09497		mg/Kg		95	70 - 130	10	35
Ethylbenzene			0.100	0.1094		mg/Kg		109	70 - 130	22	35
m-Xylene & p-Xylene			0.200	0.2107		mg/Kg		105	70 - 130	22	35
o-Xylene			0.100	0.1014		mg/Kg		101	70 - 130	22	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-111477/1-A
Matrix: Solid
Analysis Batch: 111499

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	10.0	0.395	mg/Kg			06/04/25 16:55	1

Lab Sample ID: LCS 880-111477/2-A
Matrix: Solid
Analysis Batch: 111499

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.6		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-111477/3-A
Matrix: Solid
Analysis Batch: 111499

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	247.2		mg/Kg		99	90 - 110	1	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

GC VOA

Analysis Batch: 111550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57918-1	SW-3A-0-4'	Total/NA	Solid	8021B	111560
880-57918-2	SW-5-0-4'	Total/NA	Solid	8021B	111560
MB 880-111560/5-A	Method Blank	Total/NA	Solid	8021B	111560
LCS 880-111560/1-A	Lab Control Sample	Total/NA	Solid	8021B	111560
LCSD 880-111560/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	111560

Prep Batch: 111560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57918-1	SW-3A-0-4'	Total/NA	Solid	5030B	
880-57918-2	SW-5-0-4'	Total/NA	Solid	5030B	
MB 880-111560/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-111560/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-111560/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 111651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57918-1	SW-3A-0-4'	Total/NA	Solid	Total BTEX	
880-57918-2	SW-5-0-4'	Total/NA	Solid	Total BTEX	

HPLC/IC

Leach Batch: 111477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57918-1	SW-3A-0-4'	Soluble	Solid	DI Leach	
880-57918-2	SW-5-0-4'	Soluble	Solid	DI Leach	
MB 880-111477/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-111477/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-111477/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 111499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57918-1	SW-3A-0-4'	Soluble	Solid	300.0	111477
880-57918-2	SW-5-0-4'	Soluble	Solid	300.0	111477
MB 880-111477/1-A	Method Blank	Soluble	Solid	300.0	111477
LCS 880-111477/2-A	Lab Control Sample	Soluble	Solid	300.0	111477
LCSD 880-111477/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	111477

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Client Sample ID: SW-3A-0-4'

Lab Sample ID: 880-57918-1
Matrix: Solid
Date Collected: 05/07/25 15:50
Date Received: 05/08/25 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	111560	06/05/25 09:07	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111550	06/05/25 16:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			111651	06/05/25 16:32	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	111477	06/04/25 15:47	SA	EET MID
Soluble	Analysis	300.0		1			111499	06/04/25 20:06	CH	EET MID

Client Sample ID: SW-5-0-4'

Lab Sample ID: 880-57918-2
Matrix: Solid
Date Collected: 05/07/25 16:00
Date Received: 05/08/25 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	111560	06/05/25 09:07	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111550	06/05/25 16:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			111651	06/05/25 16:53	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	111477	06/04/25 15:47	SA	EET MID
Soluble	Analysis	300.0		1			111499	06/04/25 20:13	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
Total BTEX		Solid	Total BTEX

Method Summary

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Arcadis US Inc.
Project/Site: WLLU 63

Job ID: 880-57918-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-57918-1	SW-3A-0-4'	Solid	05/07/25 15:50	05/08/25 13:45
880-57918-2	SW-5-0-4'	Solid	05/07/25 16:00	05/08/25 13:45

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

57918

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Client Information	Sampler: Heath B.	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.1
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~1 of 11~~ 1 of 1
Company: Arcadis US Inc.	PWSID:	Analysis Requested		Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			Preservation Codes: N - None
City: Midland	TAT Requested (days): 72 hr TPH. Hold BTEX, Cl'			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: ~~NM-Sites~~ WLU 63	Project #: ~~88002020~~ 30280665.00004			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SW-3A-0-4'	5/7/25	1550	C	Solid			X	1	72 hr TPH
SW-5-0-4'	5/7/25	1600	C	Solid			X	1	Hold BTEX, Cl'
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

880-57918 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 5/8/25	Company: Arcadis	Received by:	Date/Time:	Company
Relinquished by:	Date/Time: 1345	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.5/5.4

Login Sample Receipt Checklist

Client: Arcadis US Inc. Job Number: 880-57918-2

Login Number: 57918 **List Source: Eurofins Midland**
List Number: 1
Creator: Lee, Randall

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	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Midland

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 6/6/2025 12:34:33 PM

JOB DESCRIPTION

WLU 63

JOB NUMBER

880-57924-2

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Eurofins Midland

Job Notes

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

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

Authorization

Generated
6/6/2025 12:34:33 PM

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

Client: Arcadis US Inc.
Project/Site: WLU 63

Laboratory Job ID: 880-57924-2

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc. Job ID: 880-57924-2
Project/Site: WLU 63

Qualifiers

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Arcadis US Inc.
Project: WLU 63

Job ID: 880-57924-2

Job ID: 880-57924-2 Eurofins Midland

Job Narrative
880-57924-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The samples were received on 5/8/2025 2:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C.

GC VOA
Method 8021B: The following samples were analyzed outside of analytical holding time due to <being on hold.>: B-5A-4' (880-57924-1), B-11A-4' (880-57924-4) and B-13-2' (880-57924-6).

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

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Client Sample ID: B-5A-4'

Lab Sample ID: 880-57924-1

Date Collected: 05/07/25 15:00
Matrix: Solid
Date Received: 05/08/25 14:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U H	0.00199	0.00138	mg/Kg		06/04/25 15:00	06/05/25 12:29	1
Toluene	<0.00199	U H	0.00199	0.00199	mg/Kg		06/04/25 15:00	06/05/25 12:29	1
Ethylbenzene	**0.00137**	**J H**	0.00199	0.00108	mg/Kg		06/04/25 15:00	06/05/25 12:29	1
m-Xylene & p-Xylene	<0.00227	U H	0.00398	0.00227	mg/Kg		06/04/25 15:00	06/05/25 12:29	1
o-Xylene	<0.00157	U H	0.00199	0.00157	mg/Kg		06/04/25 15:00	06/05/25 12:29	1
Xylenes, Total	<0.00227	U H	0.00398	0.00227	mg/Kg		06/04/25 15:00	06/05/25 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*06/04/25 15:00*	*06/05/25 12:29*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*06/04/25 15:00*	*06/05/25 12:29*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00398	0.00227	mg/Kg			06/05/25 12:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**104**		10.0	0.397	mg/Kg			06/04/25 20:20	1

Client Sample ID: B-11A-4'

Lab Sample ID: 880-57924-4

Date Collected: 05/07/25 15:30
Matrix: Solid
Date Received: 05/08/25 14:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U H	0.00198	0.00138	mg/Kg		06/04/25 15:00	06/05/25 12:49	1
Toluene	<0.00198	U H	0.00198	0.00198	mg/Kg		06/04/25 15:00	06/05/25 12:49	1
Ethylbenzene	<0.00108	U H	0.00198	0.00108	mg/Kg		06/04/25 15:00	06/05/25 12:49	1
m-Xylene & p-Xylene	<0.00226	U H	0.00396	0.00226	mg/Kg		06/04/25 15:00	06/05/25 12:49	1
o-Xylene	<0.00157	U H	0.00198	0.00157	mg/Kg		06/04/25 15:00	06/05/25 12:49	1
Xylenes, Total	<0.00226	U H	0.00396	0.00226	mg/Kg		06/04/25 15:00	06/05/25 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/04/25 15:00*	*06/05/25 12:49*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*06/04/25 15:00*	*06/05/25 12:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.8**		10.1	0.398	mg/Kg			06/04/25 20:27	1

Client Sample ID: B-13-2'

Lab Sample ID: 880-57924-6

Date Collected: 05/07/25 16:10
Matrix: Solid
Date Received: 05/08/25 14:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U H	0.00200	0.00139	mg/Kg		06/04/25 15:00	06/05/25 13:10	1
Toluene	<0.00200	U H	0.00200	0.00200	mg/Kg		06/04/25 15:00	06/05/25 13:10	1
Ethylbenzene	<0.00109	U H	0.00200	0.00109	mg/Kg		06/04/25 15:00	06/05/25 13:10	1
m-Xylene & p-Xylene	<0.00228	U H	0.00399	0.00228	mg/Kg		06/04/25 15:00	06/05/25 13:10	1
o-Xylene	<0.00158	U H	0.00200	0.00158	mg/Kg		06/04/25 15:00	06/05/25 13:10	1
Xylenes, Total	<0.00228	U H	0.00399	0.00228	mg/Kg		06/04/25 15:00	06/05/25 13:10	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Client Sample ID: B-13-2'
Date Collected: 05/07/25 16:10
Date Received: 05/08/25 14:19

Lab Sample ID: 880-57924-6
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/04/25 15:00*	*06/05/25 13:10*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/04/25 15:00*	*06/05/25 13:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			06/05/25 13:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.5**		10.0	0.396	mg/Kg			06/04/25 20:34	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

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)										
880-57924-1	B-5A-4'	94	99										
880-57924-4	B-11A-4'	93	99										
880-57924-6	B-13-2'	91	97										
LCS 880-111479/1-A	Lab Control Sample	101	100										
LCSD 880-111479/2-A	Lab Control Sample Dup	102	104										
MB 880-111479/5-B	Method Blank	102	87										

Surrogate Legend

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

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-111479/5-B
Matrix: Solid
Analysis Batch: 111549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		06/04/25 15:00	06/05/25 11:06	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		06/04/25 15:00	06/05/25 11:06	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		06/04/25 15:00	06/05/25 11:06	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		06/04/25 15:00	06/05/25 11:06	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		06/04/25 15:00	06/05/25 11:06	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		06/04/25 15:00	06/05/25 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*06/04/25 15:00*	*06/05/25 11:06*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*06/04/25 15:00*	*06/05/25 11:06*	*1*

Lab Sample ID: LCS 880-111479/1-A
Matrix: Solid
Analysis Batch: 111549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111479

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1031		mg/Kg		103	70 - 130		
Toluene			0.100	0.09960		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.1076		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2286		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1130		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-111479/2-A
Matrix: Solid
Analysis Batch: 111549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 111479

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1131		mg/Kg		113	70 - 130	9	35
Toluene			0.100	0.1001		mg/Kg		100	70 - 130	1	35
Ethylbenzene			0.100	0.1061		mg/Kg		106	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2208		mg/Kg		110	70 - 130	3	35
o-Xylene			0.100	0.1097		mg/Kg		110	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-111477/1-A
Matrix: Solid
Analysis Batch: 111499

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	10.0	0.395	mg/Kg			06/04/25 16:55	1

Lab Sample ID: LCS 880-111477/2-A
Matrix: Solid
Analysis Batch: 111499

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.6		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-111477/3-A
Matrix: Solid
Analysis Batch: 111499

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	247.2		mg/Kg		99	90 - 110	1	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

GC VOA

Prep Batch: 111479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57924-1	B-5A-4'	Total/NA	Solid	5030B	
880-57924-4	B-11A-4'	Total/NA	Solid	5030B	
880-57924-6	B-13-2'	Total/NA	Solid	5030B	
MB 880-111479/5-B	Method Blank	Total/NA	Solid	5030B	
LCS 880-111479/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-111479/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 111549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57924-1	B-5A-4'	Total/NA	Solid	8021B	111479
880-57924-4	B-11A-4'	Total/NA	Solid	8021B	111479
880-57924-6	B-13-2'	Total/NA	Solid	8021B	111479
MB 880-111479/5-B	Method Blank	Total/NA	Solid	8021B	111479
LCS 880-111479/1-A	Lab Control Sample	Total/NA	Solid	8021B	111479
LCSD 880-111479/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	111479

Analysis Batch: 111653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57924-1	B-5A-4'	Total/NA	Solid	Total BTEX	
880-57924-6	B-13-2'	Total/NA	Solid	Total BTEX	

HPLC/IC

Leach Batch: 111477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57924-1	B-5A-4'	Soluble	Solid	DI Leach	
880-57924-4	B-11A-4'	Soluble	Solid	DI Leach	
880-57924-6	B-13-2'	Soluble	Solid	DI Leach	
MB 880-111477/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-111477/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-111477/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 111499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57924-1	B-5A-4'	Soluble	Solid	300.0	111477
880-57924-4	B-11A-4'	Soluble	Solid	300.0	111477
880-57924-6	B-13-2'	Soluble	Solid	300.0	111477
MB 880-111477/1-A	Method Blank	Soluble	Solid	300.0	111477
LCS 880-111477/2-A	Lab Control Sample	Soluble	Solid	300.0	111477
LCSD 880-111477/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	111477

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Client Sample ID: B-5A-4'

Date Collected: 05/07/25 15:00
Date Received: 05/08/25 14:19

Lab Sample ID: 880-57924-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	111479	06/04/25 15:00	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111549	06/05/25 12:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			111653	06/05/25 12:29	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	111477	06/04/25 15:47	SA	EET MID
Soluble	Analysis	300.0		1			111499	06/04/25 20:20	CH	EET MID

Client Sample ID: B-11A-4'

Date Collected: 05/07/25 15:30
Date Received: 05/08/25 14:19

Lab Sample ID: 880-57924-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.05 g	5 mL	111479	06/04/25 15:00	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111549	06/05/25 12:49	MNR	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	111477	06/04/25 15:47	SA	EET MID
Soluble	Analysis	300.0		1			111499	06/04/25 20:27	CH	EET MID

Client Sample ID: B-13-2'

Date Collected: 05/07/25 16:10
Date Received: 05/08/25 14:19

Lab Sample ID: 880-57924-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	111479	06/04/25 15:00	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111549	06/05/25 13:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			111653	06/05/25 13:10	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	111477	06/04/25 15:47	SA	EET MID
Soluble	Analysis	300.0		1			111499	06/04/25 20:34	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
Total BTEX		Solid	Total BTEX

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-57924-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-57924-1	B-5A-4'	Solid	05/07/25 15:00	05/08/25 14:19
880-57924-4	B-11A-4'	Solid	05/07/25 15:30	05/08/25 14:19
880-57924-6	B-13-2'	Solid	05/07/25 16:10	05/08/25 14:19

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

57924

eurofins | Environment Testing

Client Information	Sampler: Heath B	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.1
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~1 of 11~~ 1 of 1
Company: Arcadis US Inc.	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): (HB) 72 hr [redacted], TPH, [redacted] (HB)			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: [redacted] WLH 63	Project #: ~~[redacted]~~ 30280668.00004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: N - None

880-57924 Chain of Custody

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N		
B-5A-4'	5/7/25	1500	C	Solid		X		72 hr rush
B-7A-4'		1510		Solid		X		[redacted], TPH, [redacted] (HB) (HB)
B-9A-4'		1520		Solid		X		
B-11A-4'		1530		Solid		X		
B-12A-4'		1540		Solid		X		Hold Cl', BTEX
B-13-2'	X	1610	X	Solid		X		
				Solid				
				Solid				
				Solid				
				Solid				
				Solid				

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/7/25	Arcadis			
Relinquished by:	Date/Time: 1345	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 5.5/5.4

Login Sample Receipt Checklist

Client: Arcadis US Inc. Job Number: 880-57924-2

Login Number: 57924 **List Source: Eurofins Midland**
List Number: 1
Creator: Lee, Randall

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	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Midland

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 5/22/2025 4:46:40 PM Revision 1

JOB DESCRIPTION

WLU 63
Lea County NM

JOB NUMBER

880-58252-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
5/22/2025 4:46:40 PM
Revision 1

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

Client: Arcadis US Inc.
Project/Site: WLU 63

Laboratory Job ID: 880-58252-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Arcadis US Inc.
Project: WLU 63

Job ID: 880-58252-1

Job ID: 880-58252-1 Eurofins Midland

Job Narrative
880-58252-1

REVISION

The report being provided is a revision of the original report sent on 5/19/2025. The report (revision 1) is being revised due to Revised report to run additional tests per client request..

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The samples were received on 5/16/2025 1:31 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: B-7B-4.5' (880-58252-1), (LCS 880-110586/1-A), (LCSD 880-110586/2-A), (890-8185-A-1-G), (890-8185-A-1-E MS) and (890-8185-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-110586 and analytical batch 880-110570 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: B-12B-4.5' (880-58252-3). 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.

Diesel Range Organics
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: B-12B-4.5' (880-58252-3) and (880-58102-A-1-F). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-110578 and analytical batch 880-110590 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: B-7B-4.5' (880-58252-1), B-12B-4.5' (880-58252-3), (880-58251-A-12-B), (880-58251-A-12-C MS) and (880-58251-A-12-D MSD).

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Client Sample ID: B-7B-4.5'

Date Collected: 05/15/25 15:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58252-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 12:03	05/21/25 14:32	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 12:03	05/21/25 14:32	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 12:03	05/21/25 14:32	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 12:03	05/21/25 14:32	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 12:03	05/21/25 14:32	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 12:03	05/21/25 14:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*05/21/25 12:03*	*05/21/25 14:32*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/21/25 12:03*	*05/21/25 14:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			05/21/25 14:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**37.1**	**J**	50.0	15.1	mg/Kg			05/19/25 14:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/16/25 16:36	05/19/25 14:10	1
Diesel Range Organics (Over C10-C28)	**37.1**	**J**	50.0	15.1	mg/Kg		05/16/25 16:36	05/19/25 14:10	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 16:36	05/19/25 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*05/16/25 16:36*	*05/19/25 14:10*	*1*
o-Terphenyl	*116*		*70 - 130*	*05/16/25 16:36*	*05/19/25 14:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.0**		9.94	0.393	mg/Kg			05/21/25 16:38	1

Client Sample ID: B-9B-4.5'

Date Collected: 05/15/25 15:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58252-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**122**		50.0	15.1	mg/Kg			05/19/25 14:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/16/25 16:36	05/19/25 14:25	1
Diesel Range Organics (Over C10-C28)	**122**		50.0	15.1	mg/Kg		05/16/25 16:36	05/19/25 14:25	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 16:36	05/19/25 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*05/16/25 16:36*	*05/19/25 14:25*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Client Sample ID: B-9B-4.5'

Lab Sample ID: 880-58252-2
Matrix: Solid
Date Collected: 05/15/25 15:10
Date Received: 05/16/25 13:31

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*117*		*70 - 130*	*05/16/25 16:36*	*05/19/25 14:25*	*1*

Client Sample ID: B-12B-4.5'

Lab Sample ID: 880-58252-3
Matrix: Solid
Date Collected: 05/15/25 15:20
Date Received: 05/16/25 13:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00199	0.00139	mg/Kg		05/21/25 12:03	05/21/25 16:27	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/21/25 12:03	05/21/25 16:27	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		05/21/25 12:03	05/21/25 16:27	1
m-Xylene & p-Xylene	<0.00228	U	0.00398	0.00228	mg/Kg		05/21/25 12:03	05/21/25 16:27	1
o-Xylene	<0.00158	U	0.00199	0.00158	mg/Kg		05/21/25 12:03	05/21/25 16:27	1
Xylenes, Total	<0.00228	U	0.00398	0.00228	mg/Kg		05/21/25 12:03	05/21/25 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*	*05/21/25 12:03*	*05/21/25 16:27*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/21/25 12:03*	*05/21/25 16:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00398	0.00228	mg/Kg			05/21/25 16:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**29.5**	**J**	50.0	15.1	mg/Kg			05/19/25 14:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/16/25 16:36	05/19/25 14:40	1
Diesel Range Organics (Over C10-C28)	**29.5**	**J**	50.0	15.1	mg/Kg		05/16/25 16:36	05/19/25 14:40	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 16:36	05/19/25 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*05/16/25 16:36*	*05/19/25 14:40*	*1*
o-Terphenyl	*128*		*70 - 130*	*05/16/25 16:36*	*05/19/25 14:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.0**		9.92	0.392	mg/Kg			05/21/25 16:45	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

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)
880-58252-1	B-7B-4.5'	146 S1+	90
880-58252-3	B-12B-4.5'	154 S1+	91
LCS 880-110586/1-A	Lab Control Sample	138 S1+	94
LCSD 880-110586/2-A	Lab Control Sample Dup	134 S1+	95
MB 880-110586/5-A	Method Blank	135 S1+	84

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-58252-1	B-7B-4.5'	123	116
880-58252-2	B-9B-4.5'	123	117
880-58252-3	B-12B-4.5'	134 S1+	128
LCS 880-110243/2-A	Lab Control Sample	86	77
LCSD 880-110243/3-A	Lab Control Sample Dup	85	75
MB 880-110243/1-A	Method Blank	108	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-110586/5-A
Matrix: Solid
Analysis Batch: 110570

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 09:09	05/21/25 11:27	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 09:09	05/21/25 11:27	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 09:09	05/21/25 11:27	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 09:09	05/21/25 11:27	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 09:09	05/21/25 11:27	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 09:09	05/21/25 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*05/21/25 09:09*	*05/21/25 11:27*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*05/21/25 09:09*	*05/21/25 11:27*	*1*

Lab Sample ID: LCS 880-110586/1-A
Matrix: Solid
Analysis Batch: 110570

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110586

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1003		mg/Kg		100	70 - 130		
Toluene			0.100	0.1090		mg/Kg		109	70 - 130		
Ethylbenzene			0.100	0.1159		mg/Kg		116	70 - 130		
m-Xylene & p-Xylene			0.200	0.2297		mg/Kg		115	70 - 130		
o-Xylene			0.100	0.1151		mg/Kg		115	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-110586/2-A
Matrix: Solid
Analysis Batch: 110570

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110586

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1020		mg/Kg		102	70 - 130	2	35
Toluene			0.100	0.1085		mg/Kg		109	70 - 130	0	35
Ethylbenzene			0.100	0.1125		mg/Kg		112	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2221		mg/Kg		111	70 - 130	3	35
o-Xylene			0.100	0.1116		mg/Kg		112	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-110243/1-A
Matrix: Solid
Analysis Batch: 110442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/15/25 13:24	05/19/25 10:20	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/15/25 13:24	05/19/25 10:20	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/15/25 13:24	05/19/25 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*05/15/25 13:24*	*05/19/25 10:20*	*1*
o-Terphenyl	*99*		*70 - 130*	*05/15/25 13:24*	*05/19/25 10:20*	*1*

Lab Sample ID: LCS 880-110243/2-A
Matrix: Solid
Analysis Batch: 110442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1098		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	986.8		mg/Kg		99	70 - 130		

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

Lab Sample ID: LCSD 880-110243/3-A
Matrix: Solid
Analysis Batch: 110442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110243

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1104		mg/Kg		110	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	985.8		mg/Kg		99	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-110578/1-A
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	10.0	0.395	mg/Kg			05/21/25 13:20	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-110578/2-A
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	255.4		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-110578/3-A
Matrix: Solid
Analysis Batch: 110590

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	261.1		mg/Kg		104	90 - 110	2	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

GC VOA

Analysis Batch: 110570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Total/NA	Solid	8021B	110586
880-58252-3	B-12B-4.5'	Total/NA	Solid	8021B	110586
MB 880-110586/5-A	Method Blank	Total/NA	Solid	8021B	110586
LCS 880-110586/1-A	Lab Control Sample	Total/NA	Solid	8021B	110586
LCSD 880-110586/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	110586

Prep Batch: 110586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Total/NA	Solid	5030B	
880-58252-3	B-12B-4.5'	Total/NA	Solid	5030B	
MB 880-110586/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-110586/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-110586/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 110679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Total/NA	Solid	Total BTEX	
880-58252-3	B-12B-4.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 110243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Total/NA	Solid	8015NM Prep	
880-58252-2	B-9B-4.5'	Total/NA	Solid	8015NM Prep	
880-58252-3	B-12B-4.5'	Total/NA	Solid	8015NM Prep	
MB 880-110243/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-110243/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-110243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 110442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Total/NA	Solid	8015B NM	110243
880-58252-2	B-9B-4.5'	Total/NA	Solid	8015B NM	110243
880-58252-3	B-12B-4.5'	Total/NA	Solid	8015B NM	110243
MB 880-110243/1-A	Method Blank	Total/NA	Solid	8015B NM	110243
LCS 880-110243/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	110243
LCSD 880-110243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	110243

Analysis Batch: 110464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Total/NA	Solid	8015 NM	
880-58252-2	B-9B-4.5'	Total/NA	Solid	8015 NM	
880-58252-3	B-12B-4.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 110578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Soluble	Solid	DI Leach	
880-58252-3	B-12B-4.5'	Soluble	Solid	DI Leach	
MB 880-110578/1-A	Method Blank	Soluble	Solid	DI Leach	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 110578 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-110578/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-110578/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 110590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58252-1	B-7B-4.5'	Soluble	Solid	300.0	110578
880-58252-3	B-12B-4.5'	Soluble	Solid	300.0	110578
MB 880-110578/1-A	Method Blank	Soluble	Solid	300.0	110578
LCS 880-110578/2-A	Lab Control Sample	Soluble	Solid	300.0	110578
LCSD 880-110578/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	110578

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Client Sample ID: B-7B-4.5'
Date Collected: 05/15/25 15:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58252-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	110586	05/21/25 12:03	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110570	05/21/25 14:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			110679	05/21/25 14:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			110464	05/19/25 14:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	110243	05/16/25 16:36	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110442	05/19/25 14:10	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 16:38	SMC	EET MID

Client Sample ID: B-9B-4.5'
Date Collected: 05/15/25 15:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58252-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			110464	05/19/25 14:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110243	05/16/25 16:36	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110442	05/19/25 14:25	TKC	EET MID

Client Sample ID: B-12B-4.5'
Date Collected: 05/15/25 15:20
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58252-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	110586	05/21/25 12:03	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110570	05/21/25 16:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			110679	05/21/25 16:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			110464	05/19/25 14:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110243	05/16/25 16:36	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110442	05/19/25 14:40	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 16:45	SMC	EET MID

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

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Arcadis US Inc.
Project/Site: WLU 63

Job ID: 880-58252-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-58252-1	B-7B-4.5'	Solid	05/15/25 15:00	05/16/25 13:31
880-58252-2	B-9B-4.5'	Solid	05/15/25 15:10	05/16/25 13:31
880-58252-3	B-12B-4.5'	Solid	05/15/25 15:20	05/16/25 13:31

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Heath B	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.2
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page [redacted] 1 of 1
Company: Arcadis US Inc.	PWSID:	Analysis Requested		Job #: 58252
Address: 1004 North Big Spring Suite 300	Due Date Requested:			Preservation Codes: N - None
City: Midland	TAT Requested (days): 24 hr TPH, Hold BTEX/Cl'			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: [redacted] WLU 63	Project #: [redacted] 30280668.00004			Other:
Site: Lea County, NM	SSOW#:			

880-58252 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
B-7B-4.5'	5/15/25	1500	C	Solid			X		24 hr TPH
B-9B-4.5'	1	1510	C	Solid			X		1
B-12B-4.5'	X	1520	C	Solid			X		Hold BTEX, [redacted] Cl'
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
HB	05/16/25	ANA	[signature]	5.16.25	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1331	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2-6/25 IR8

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 880-58252-1
SDG Number: Lea County NM

Login Number: 58252
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Midland

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

Appendix C

Photo Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #063	Lea County, NM	nPLM0830339670

Photo No.	Date:
1	5/22/2025

Coordinates:

32.852518, -103.364924

Description:

Excavation completed.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #063	Lea County, NM	nPLM0830339670

Photo No.	Date:
2	5/22/2025

Coordinates:

32.852518, -103.364924

Description:

Excavation completed.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #063	Lea County, NM	nPLM0830339670

Photo No.	Date:
3	5/27/2025

Coordinates:

32.852518, -103.364924

Description:

Excavation backfill complete.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #063	Lea County, NM	nPLM0830339670

Photo No.	Date:
4	5/27/2025

Coordinates:

32.852518, -103.364924

Description:

Excavation backfilled and restored.

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 2250
Houston
Texas 77056
Phone: 713 953 4800
www.arcadis.com

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 482643

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 482643
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nPLM0830339670**
Incident Name	**NPLM0830339670 WEST LOVINGTON UNIT #063 @ 30-025-26823**
Incident Type	**Other**
Incident Status	**Reclamation Report Received**
Incident Well	**[30-025-26823] WEST LOVINGTON UNIT #063**

Location of Release Source *Please answer all the questions in this group.*	
Site Name	WEST LOVINGTON UNIT #063
Date Release Discovered	04/01/2007
Surface Owner	Private

Incident Details *Please answer all the questions in this group.*	
Incident Type	Other
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	Yes

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: Other | Unknown | Crude Oil | Released: 0 BBL (Unknown Released Amount) | Recovered: 0 BBL | Lost: 0 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	*Not answered.*
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	According to the Initial C-141 Form, on April 1, 2007, a soil boring investigation was conducted at Site No. 173609C located adjacent to the Unit Boundary of the West Lovington Unit. Two separate boreholes indicated the presence of chloride, benzene, toluene, ethylbenzene, xylenes (BTEX), and various hydrocarbon chains at concentrations sufficient to warrant further investigation. Verbal notification of potential groundwater impact was made to Chris Williams at the local New Mexico Oil Conservation Division (NMOCD) district office on February 1, 2008. The time and source of the impacting event (release) is unknown. The Initial C-141 Form was approved on October 29, 2008, and assigned remediation permit number 1RP-1993 and incident number nPLM0830339670

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 482643
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more;** **(4) a release of a volume that may with reasonable probability be detrimental to fresh water.**

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: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/08/2025

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QUESTIONS (continued)

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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	Yes
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	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	1220
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1340
GRO+DRO (EPA SW-846 Method 8015M)	930
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	04/30/2025
On what date will (or did) the final sampling or liner inspection occur	05/20/2025
On what date will (or was) the remediation complete(d)	05/20/2025
What is the estimated surface area (in square feet) that will be reclaimed	3100
What is the estimated volume (in cubic yards) that will be reclaimed	230
What is the estimated surface area (in square feet) that will be remediated	3100
What is the estimated volume (in cubic yards) that will be remediated	230
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 482643
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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	GANDY MARLEY LANDFARM/LANDFILL [fEEM0112338393]
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)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
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: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/08/2025
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)

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QUESTIONS

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

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QUESTIONS (continued)

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	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**460941**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**05/14/2025**
What was the (estimated) number of samples that were to be gathered	**20**
What was the sampling surface area in square feet	**3100**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	2487
What was the total volume (cubic yards) remediated	400
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	2487
What was the total volume (in cubic yards) reclaimed	400
Summarize any additional remediation activities not included by answers (above)	see additional details in the attached report.

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/08/2025

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QUESTIONS (continued)

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QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	2487
What was the total volume of replacement material (in cubic yards) for this site	400
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	07/28/2025
Summarize any additional reclamation activities not included by answers (above)	see attached report for additional details.
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/08/2025

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QUESTIONS (continued)

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QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	The soil remediation and reclamation closure is approved. In a letter dated December 12, 2023 from Chevron, App ID: 295342, additional soil AND groundwater assessment is required at the site. Currently, four unregistered monitoring wells with LNAPL are located at the site. The OCD notes that the most recent groundwater gauging data provided was in 2021. No current groundwater quality or sampling data is available as of late. Please provide groundwater sample data for all four monitoring wells, specifically for BTEX and Chloride, to the OCD no later than 60 days from receipt of this approval, by 09/08/2025.	7/9/2025
michael.buchanan	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	7/9/2025
michael.buchanan	A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	7/9/2025
michael.buchanan	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	7/9/2025
michael.buchanan	The reclamation report has been approved pursuant to 19.15.29.13 E. NMAC. The acceptance of this 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; or if the location fails to revegetate properly. In addition, the OCD approval does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	7/9/2025