Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

June 4, 2024

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

Re: Chevron Lovington Paddock Unit
Soil Remediation Work Plan
Incident No. nPAC0617434320
Case No. 1RP-936

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
Chevron Lovington Paddock Unit 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. 2024 Work Plan
Chevron Lovington Paddock Unit

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

Chris Brand
Environmental Remediation/ Facility Decom Advisor
6301 Deauville Blvd, Midland, TX 79706
Mobile 661 401 0359
chrisbrand@chevron.com

ARCADIS

Chevron Environmental Management Company

2024 Work Plan

Chevron Lovington Paddock Unit

Lea County, New Mexico

Incident # nPAC0617434320

June 2024

2024 Work Plan

Chevron Lovington Paddock Unit
Incident # nPAC0617434320

Lea County, New Mexico

June 2024

Prepared By:
Arcadis U.S., Inc.
10205 Westheimer Road, Suite 800
Houston
Texas 77042
Phone: 713 953 4800
Fax: 713 977 4620

Prepared For:
Chris Brand
Project Manager
CEMC
6301 Deauville Blvd.
Midland, TX 79706

Scott Foord, PG
Program Manager

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2024 Work Plan
Chevron Lovington Paddock Unit

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 Chevron Lovington Paddock Unit (Site) located at coordinates: 32.867764, -103.306229. 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 City of Lovington owned land approximately 5.60 miles southeast of the City of Lovington in Unit A, Section 1, 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 # nPAC0617434320

According to the Initial C-141 Form, on June 17, 2006, a pressure control switch failed releasing approximately 200 barrels (bbls) of produced water at the Site. The water was retained on pad. According to the Initial C-141 Form, the amount recovered by vacuum truck was approximately 170 bbls of standing fluid. The Initial C-141 Form was submitted on June 19, 2006 and assigned remediation permit number 1RP-936 and incident number nPAC0617434320. The Initial C-141 Form is included as **Appendix A**.

3 Site Characterization

After a review of the New Mexico Office of State Engineers (NMOSE) and United States Geological Survey (USGS) databases, USGS well 325216103184601 located approximately 0.44 miles southeast of the Site was identified and gauged with a water level meter by Arcadis on May 20, 2024. The well was verified as dry at 112.05 feet below ground surface (bgs). The Site is within the City of Lovington municipal well field, therefore the most stringent NMOCD closure criteria will be applied.

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 100 and 500 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 0.5 and 1 miles;
- 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 1,000 feet and 0.50 miles;
- Distance to any other fresh water well or spring: Between 1,000 feet and 0.50 miles;

- Distance to incorporated municipal boundaries or a defined municipal fresh water well field: 0 ft, overlying, or within area;
- Distance to wetland: Between 1,000 feet and 0.5 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 the Site location being within the City of Lovington municipal well field boundaries:

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 March 2023, and subsequently in January, February and April 2024, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of nineteen (19) sample points (SB-1 through SB-19) were advanced to depths ranging from the surface to 7 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**. 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 0.000378 J mg/kg (SB-1) to 0.000538 J mg/kg (SB-4). Soil samples analyzed for TPH were reported with concentrations ranging from 15.9 J mg/kg (SB-11) to 298 mg/kg (SB-9). Soil samples analyzed for chloride were reported with concentrations ranging from 6.48 mg/kg (SB-17) to 4,590 mg/kg (SB-4).

Horizontal delineation was completed during assessment activities. Vertical assessment to a depth of 7 feet bgs was conducted in the area of concern during recent assessment activities and will be continued during

remediation activities until laboratory analyses confirm soil concentrations below applicable NMAC 19.15.29.12 constituent screening limits. 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 initial site assessment, including analytical methods, results, and chain-of-custody documents, are attached in **Appendix B.** NMOCD correspondence is shown in **Appendix C.**

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 area 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 20,000 square feet. An estimated 3,000 cubic yards of soil will be removed and transported to the R360 Facility, 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 (R360) 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 20,000 square feet of the area of concern located within the pad and pasture area 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 final closure request report describing the 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
Chevron Lovington Paddock Unit (LPU Injection Station)
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 Standard (>4 feet)			10	--	--	--	50	--	--	--	--	**100**	**600**
Restoration Requirements (<4 ft)			--	--	--	--	--	--	--	--	--	**100**	**600**
SB-1	0-0.5'	03/29/23	<0.000383	<0.000453	<0.000562	<0.000342	<0.000342	23.3 J	147	170.3 J	<15.0	***170***	***1,390***
	2'	03/29/23	<0.000387	<0.000459	<0.000568	0.000378 J	0.000378 J	22.6 J	66.2	88.8 J	<15.0	88.8	***2660***
SB-2	0-0.5'	03/29/23	<0.000382	<0.000452	<0.000561	<0.000341	<0.000341	19.9 J	33.9 J	53.8 J	<15.0	53.8	364
	2'	03/29/23	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	33.2 J	20.9 J	54.1 J	<15.0	54.1	153
SB-3	0-0.5'	03/29/23	<0.000387	<0.000459	<0.000568	<0.000346	<0.000346	32.2 J	30.5 J	62.7 J	<15.0	62.7	***3,340***
	2'	03/29/23	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	19.1 J	87.9	107.0 J	<15.0	***107***	***1,180***
SB-4	0-0.5'	03/29/23	<0.000384	<0.000455	<0.000564	<0.000343	<0.000343	20.5 J	33.5 J	54.0 J	<15.0	54.0	***4,590***
	2'	03/29/23	<0.000381	0.000538 J	<0.000559	<0.000341	0.000538 J	29.5 J	135	164.5 J	<15.0	***165***	***1,240***
SB-5	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	344 F1
	1.5'	01/30/24	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<14.9	20.7 J	20.7 J	<14.9	20.7 J	406
SB-6	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	174
	1.5'	01/30/24	<0.000387	0.000569 J	<0.000568	<0.00102	<0.00102	<15.0	44.3 J	44.3 J	<15.0	44.3 J	324
SB-7	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	95.4
	1.5'	01/30/24	<0.000386	0.000659 J	<0.000566	<0.00101	<0.00101	<15.1	45.0 J	45.0 J	<15.1	45.0 J	82.4
SB-8	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	203
	2'	01/30/24	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	<15.2	201	201	<15.2	***201***	157
SB-9	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	143
	2'	01/30/24	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	<15.0	298	298	<15.0	***298***	113
SB-10	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	***1,970***
	2'	01/30/24	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<15.0	44.9 J	44.9 J	<15.0	44.9 J	353
SB-11	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	***1,730***
	2'	01/30/24	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	<14.9	15.9 J	15.9 J	<14.9	15.9 J	***1,300***
SB-12	1'	01/30/24	--	--	--	--	--	--	--	--	--	--	***1,240***
	1.5'	01/30/24	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	<14.9	24.0 J	24.0 J	<14.9	***167***	***1,240***
SB-13	1'	02/01/24	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	32.9 J	36.4 J B	69.3 J B	<15.0	69.3	190
	1.5'	02/01/24	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	33.9 J	31.9 J B	65.8 J B	<15.1	65.8	362
SB-14	1'	02/01/24	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	24.2 J	22.6 J B	46.8 J B	<15.0	46.8 J	***639***
	1.5'	02/01/24	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	28.3 J	21.6 J B	49.9 J B	<15.0	49.9	***745***
SB-15	0-1'	04/16/24	--	--	--	--	--	--	--	--	--	--	46.0
	2-3'	04/16/24	0.000592 J	<0.000458	<0.000567	<0.00101	<0.00101	31.0 J	127 B	158 J B	<14.9	***158***	67.1
SB-16	0-1'	04/16/24	--	--	--	--	--	--	--	--	--	--	40.8
	2-3'	04/16/24	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	27.7 J	<14.9	27.7 J	<14.9	27.7 J	40.8
SB-17	0-1'	04/16/24	--	--	--	--	--	--	--	--	--	--	6.48
	2-3'	04/16/24	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	18.5 J	<14.9	18.5 J	<14.9	18.5 J	10.1
SB-18	4-5'	04/16/24	--	--	--	--	--	--	--	--	--	--	***1,550***
	6-7'	04/16/24	<0.000382	<0.000452	<0.000561	<0.00100	<0.00100	41.7 J	<15.0	41.7 J	<15.0	41.7 J	***720***
SB-19	2-3'	04/16/24	--	--	--	--	--	--	--	--	--	--	***606***
	4-5'	04/16/24	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	38.9 J	<15.0	38.9 J	<15.0	38.9 J	594

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
F1: MS and/or MSD recovery 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 greater than 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 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
CHEVRON LOVINGTON PADDOCK UNIT
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: yadavs0264 : Client (Project #)
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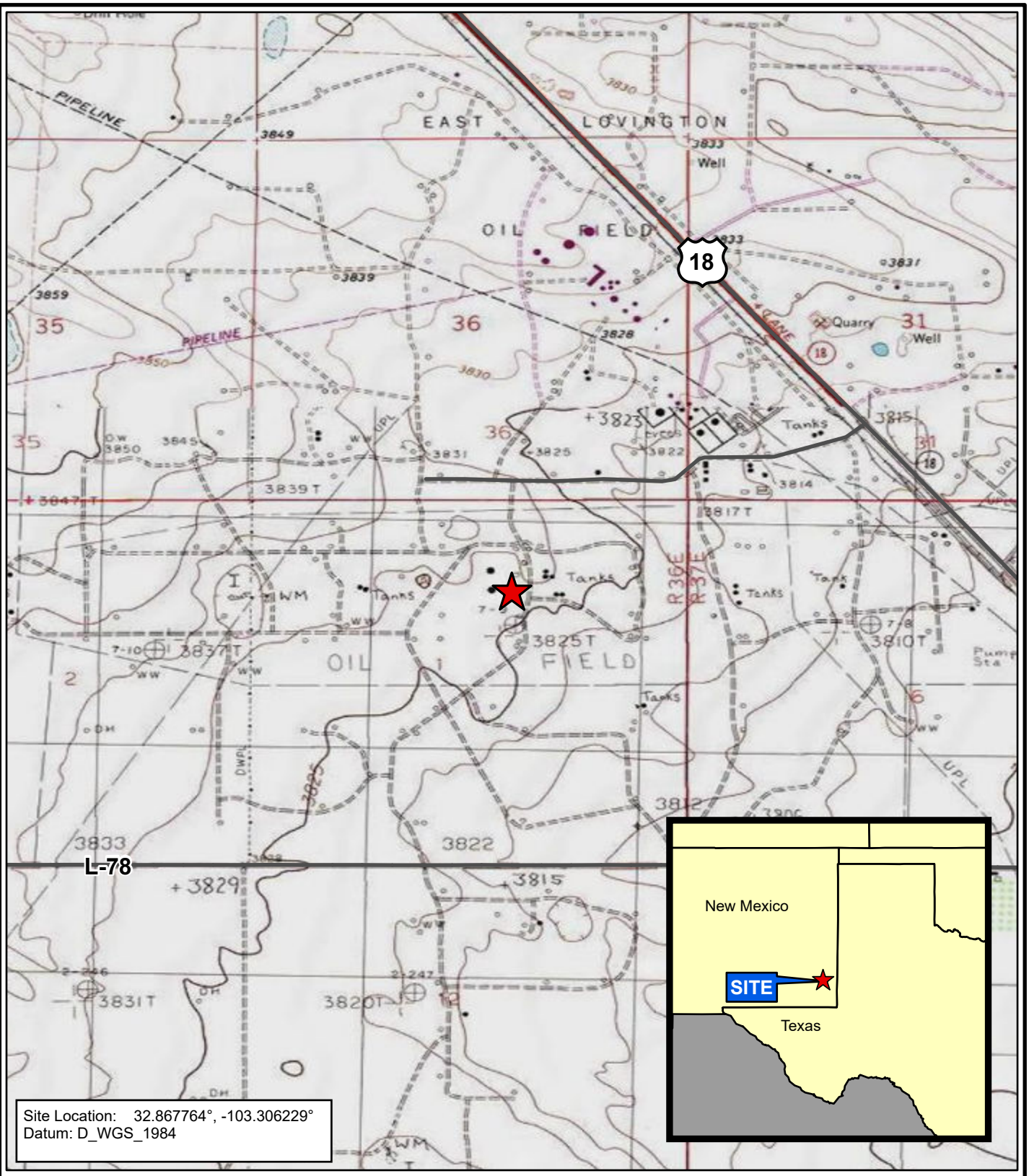


Legend

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

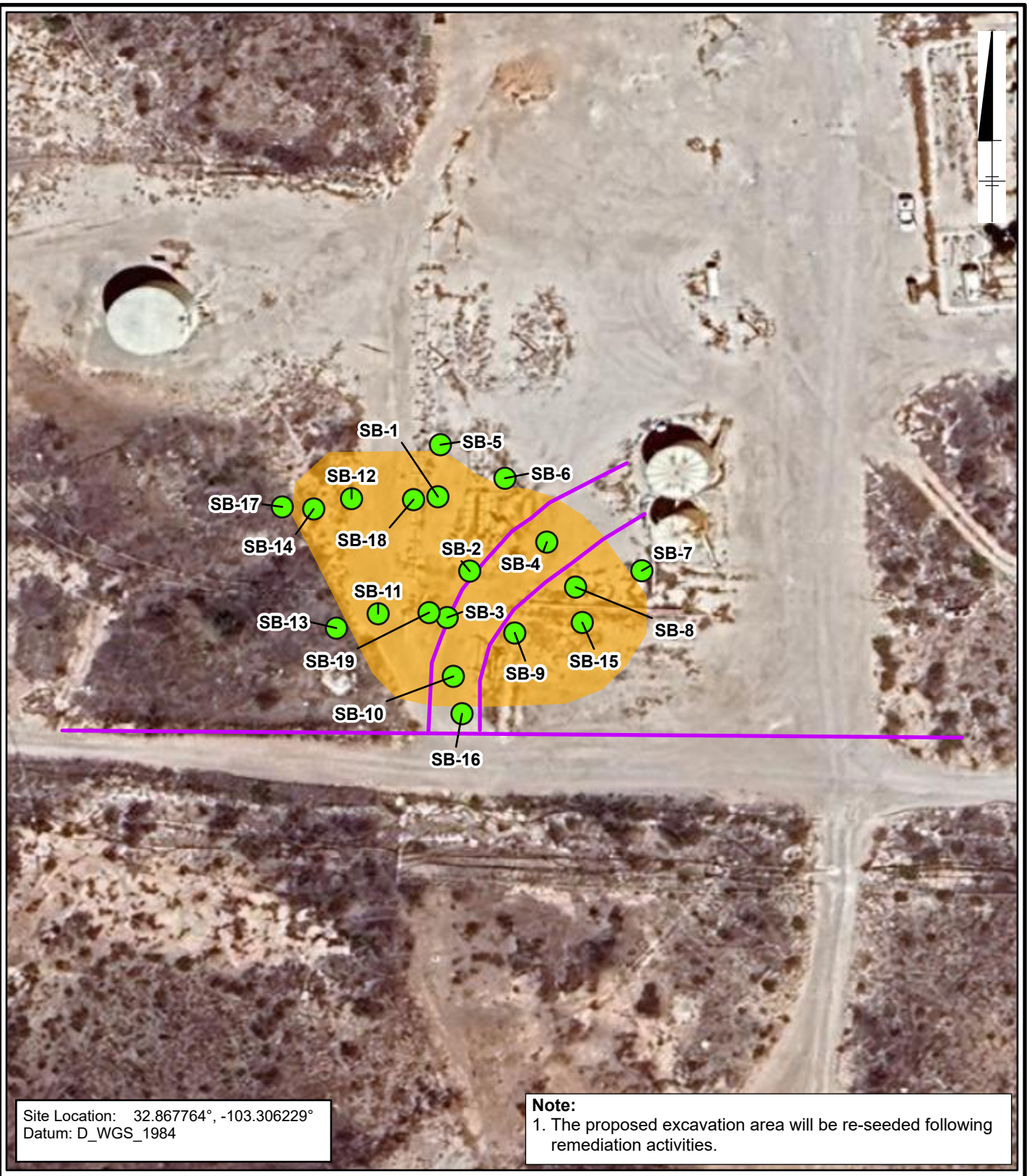
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
CHEVRON LOVINGTON PADDOCK UNIT
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: yadavs0264 : Client (Project #)
T:_ENV\Chevron\Upstream\Chevron Lovington Paddock Unit_Pro\Chevron Lovington Paddock Unit.aprx 5/20/2024 4:47 PM



Site Location: 32.867764°, -103.306229°
Datum: D_WGS_1984

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

Legend

- Previous Assessment Sample Location
- Pipeline
- Proposed Excavation Area

0 80 160 Feet
GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
CHEVRON LOVINGTON PADDOCK UNIT
LEA COUNTY, NEW MEXICO

PROPOSED EXCAVATION AND SAMPLE LOCATION MAP

ARCADIS

FIGURE 3

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Upstream\Chevron Lovington Paddock Unit_Pro\Chevron Lovington Paddock Unit.aprx 5/31/2024 12:22 PM

Appendix A

Initial C-141 Form Incident # nPAC0617434320

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

☐ Initial Report ☒ Final Report

Name of Company Chevron MidContinent, L.P.	Contact Wayne Minchew
Address HCR 60 Box 423 Lovington, NM 88260	Telephone No. 505-396-4414
Facility Name Lovington Paddock Unit	Facility Type Injection Station

Surface Owner City of Lovington	Mineral Owner State of NM	Lease No. 32359

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	1	17S	36E					LEA

57'

Latitude 32° 52'4.3" **Longitude** W 103° 18' 22"

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 200 bbls	Volume Recovered 170 bbls
Source of Release Control Line	Date and Hour of Occurrence 06-17-06 0230	Date and Hour of Discovery 06-17-06 0630
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Larry Ridenour	Date and Hour 06-17-06 0750	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Pressure control switch line failure. Line isolated and taken out of service.

Describe Area Affected and Cleanup Action Taken.*

All contained on location. Vacuum truck picked up all water it could. No remedial action taken, everything stayed on location on pad.

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: Larry D Rid	OIL CONSERVATION DIVISION
Printed Name: Larry Ridenour	Approved by District Supervisor:
Title: Operations Representative	Approval Date: / Expiration Date:
E-mail Address: lridenour@chevron.com	Conditions of Approval: / Attached ☐
Date: 06-19-06 Phone: 505-396-4414	

* Attach Additional Sheets If Necessary

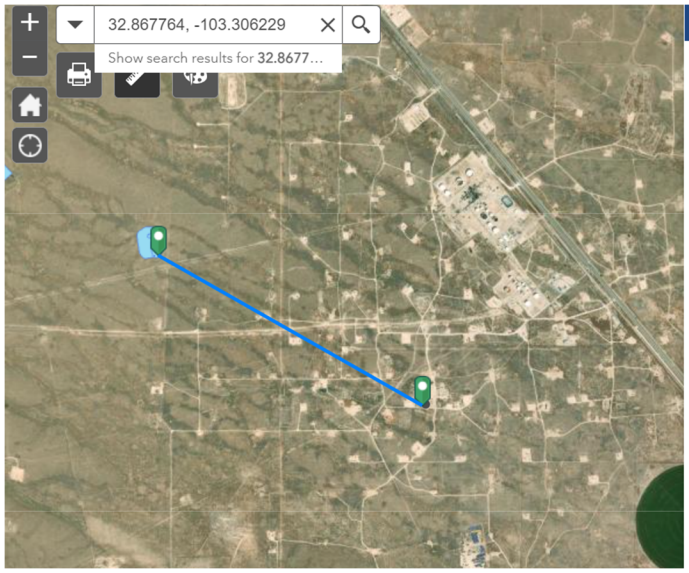
Facility - fPAC0617433007
Incident - nPAC0617434320
Application - pPAC0617434541

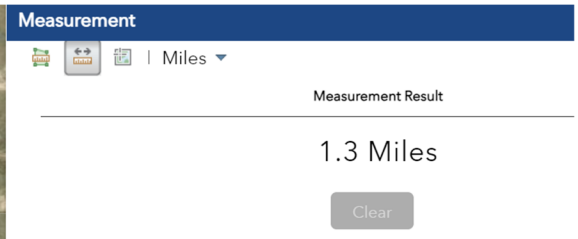
RP# 936

Appendix B

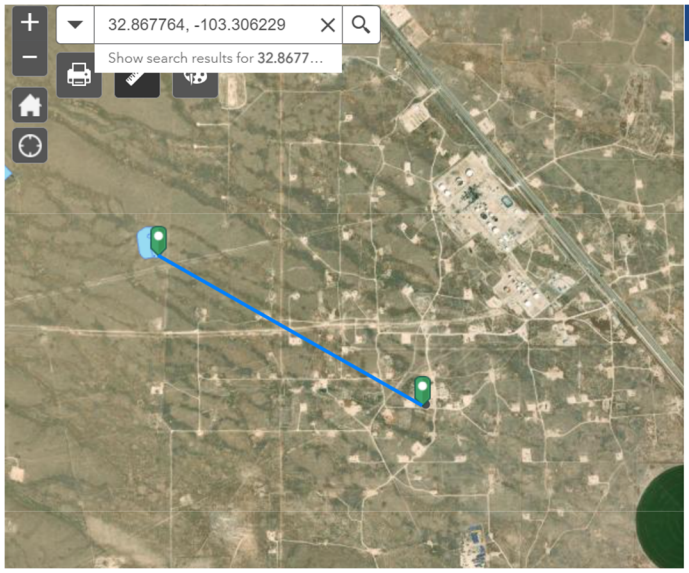
Site Characterization Data

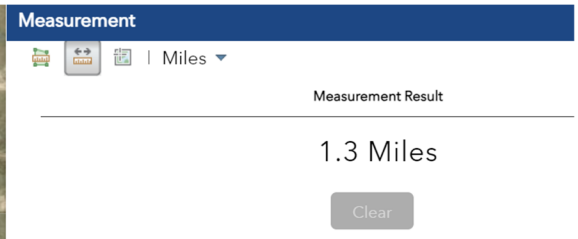
Distance to lakebed, sinkhole, or playa lake.



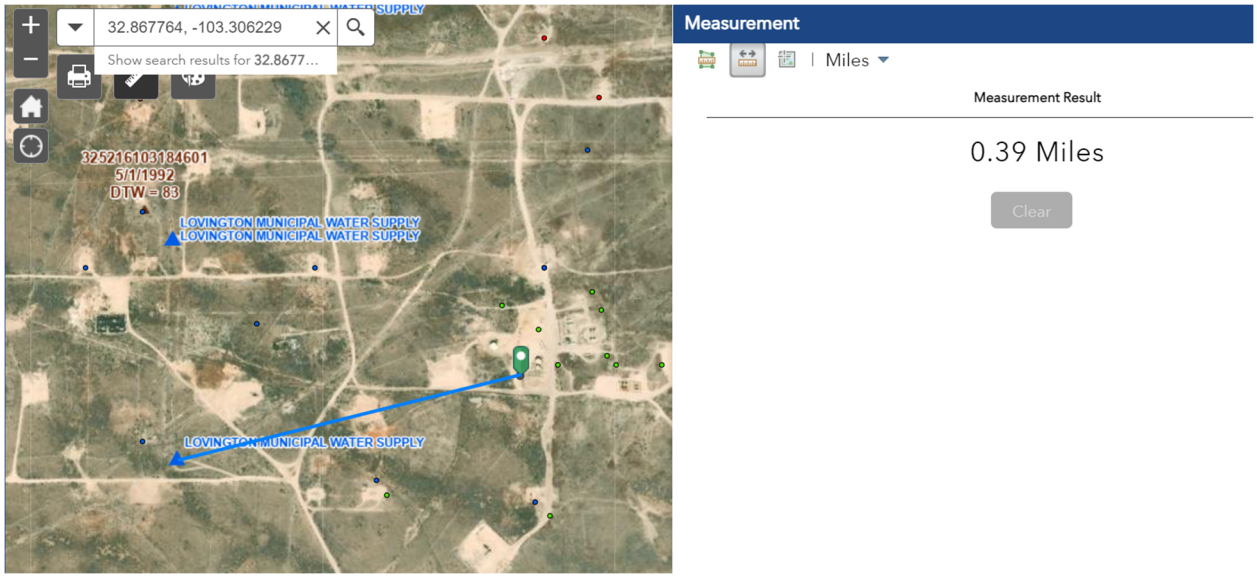


Distance to occupied permanent residence, school, hospital, institution, or church.

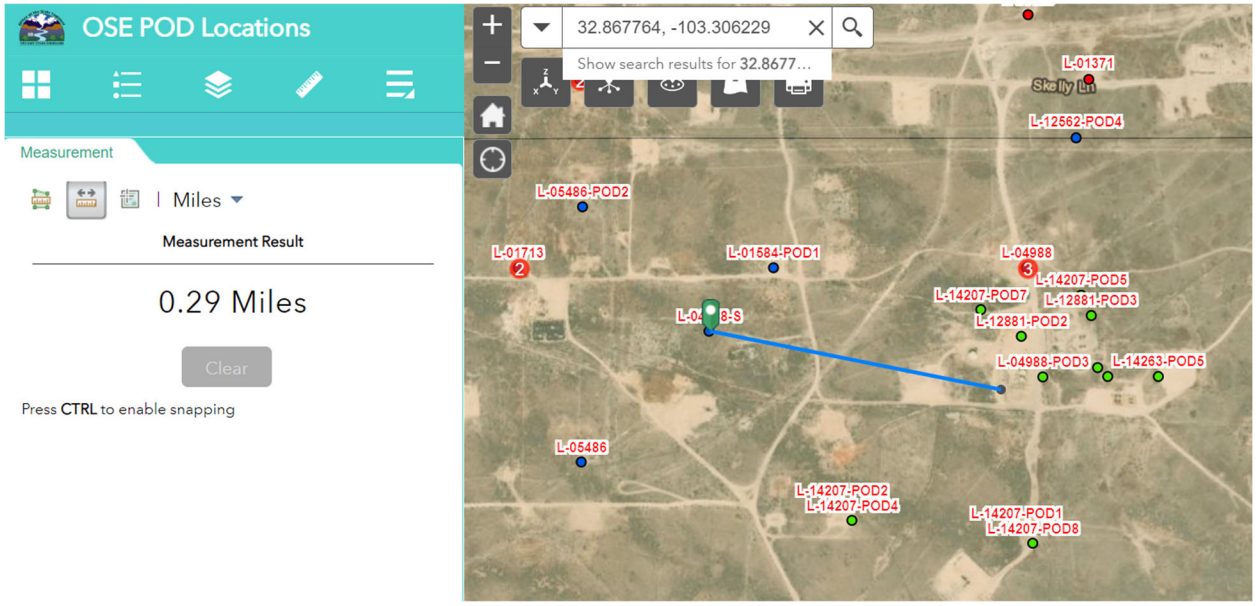




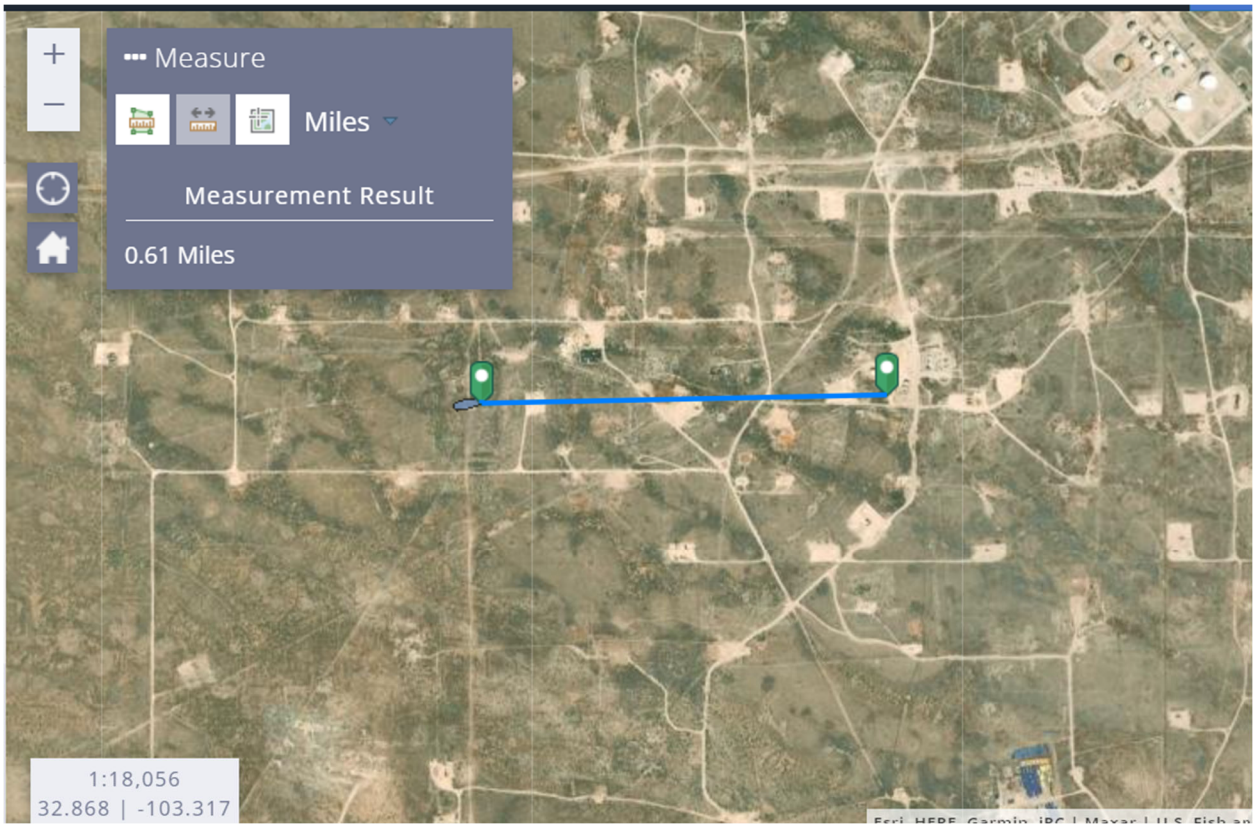
Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes (Lovington Municipal Water Supply Well NM3521813).



Distance to any other fresh water well or spring (L-04988-S).



Distance to a wetland.



Appendix C

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/10/2023 9:55:43 AM

JOB DESCRIPTION

Lovington LPU Control Battery

JOB NUMBER

880-26571-1

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
4/10/2023 9:55:43 AM

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

Client: ARCADIS U.S. Inc
Project/Site: Lovington LPU Control Battery

Laboratory Job ID: 880-26571-1

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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 U.S. Inc
Project/Site: Lovington LPU Control Battery

Job ID: 880-26571-1

Job ID: 880-26571-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26571-1

Receipt
The samples were received on 3/29/2023 5:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

Receipt Exceptions
The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar.

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-50530 and analytical batch 880-50707 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.

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

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

Client Sample Results

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-3-S-0-0.5-20230329
Lab Sample ID: 880-26571-1
Date Collected: 03/29/23 09:48
Matrix: Solid
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 07:45	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/06/23 15:19	04/09/23 07:45	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/06/23 15:19	04/09/23 07:45	1
m-Xylene & p-Xylene	<0.00102	U F1	0.00402	0.00102	mg/Kg		04/06/23 15:19	04/09/23 07:45	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/06/23 15:19	04/09/23 07:45	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/06/23 15:19	04/09/23 07:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*04/06/23 15:19*	*04/09/23 07:45*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*04/06/23 15:19*	*04/09/23 07:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**62.7**		49.9	15.0	mg/Kg			04/03/23 10:23	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	**32.2**	**J**	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:34	1
Diesel Range Organics (Over C10-C28)	**30.5**	**J**	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:34	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/31/23 16:59*	*04/01/23 15:34*	*1*
o-Terphenyl	*93*		*70 - 130*	*03/31/23 16:59*	*04/01/23 15:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3340**		25.3	1.99	mg/Kg			04/07/23 05:15	5

Client Sample ID: SB-2-S-0.5-20230329
Lab Sample ID: 880-26571-2
Date Collected: 03/29/23 09:49
Matrix: Solid
Date Received: 03/29/23 17:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000382	U	0.00198	0.000382	mg/Kg		04/06/23 15:19	04/09/23 08:06	1
Toluene	<0.000452	U	0.00198	0.000452	mg/Kg		04/06/23 15:19	04/09/23 08:06	1
Ethylbenzene	<0.000561	U	0.00198	0.000561	mg/Kg		04/06/23 15:19	04/09/23 08:06	1
m-Xylene & p-Xylene	<0.00100	U	0.00397	0.00100	mg/Kg		04/06/23 15:19	04/09/23 08:06	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/06/23 15:19	04/09/23 08:06	1
Xylenes, Total	<0.00100	U	0.00397	0.00100	mg/Kg		04/06/23 15:19	04/09/23 08:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*04/06/23 15:19*	*04/09/23 08:06*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*04/06/23 15:19*	*04/09/23 08:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.8**		50.0	15.0	mg/Kg			04/03/23 10:23	1

Client Sample Results

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-2-S-0.5-20230329
Lab Sample ID: 880-26571-2
Date Collected: 03/29/23 09:49
Matrix: Solid
Date Received: 03/29/23 17:40

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	19.9	J	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:55	1
Diesel Range Organics (Over C10-C28)	33.9	J	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:55	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/31/23 16:59*	*04/01/23 15:55*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/31/23 16:59*	*04/01/23 15:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	364		4.96	0.392	mg/Kg			04/07/23 05:29	1

Client Sample ID: SB-4-S-0.5-20230329
Lab Sample ID: 880-26571-3
Date Collected: 03/29/23 09:51
Matrix: Solid
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 08:26	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		04/06/23 15:19	04/09/23 08:26	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/06/23 15:19	04/09/23 08:26	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/06/23 15:19	04/09/23 08:26	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/06/23 15:19	04/09/23 08:26	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/06/23 15:19	04/09/23 08:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*04/06/23 15:19*	*04/09/23 08:26*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*04/06/23 15:19*	*04/09/23 08:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	54.0		49.9	15.0	mg/Kg			04/03/23 10:23	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	20.5	J	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 16:37	1
Diesel Range Organics (Over C10-C28)	33.5	J	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 16:37	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/31/23 16:59*	*04/01/23 16:37*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/31/23 16:59*	*04/01/23 16:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4590		49.5	3.91	mg/Kg			04/07/23 05:34	10

Client Sample Results

Client: ARCADIS U.S. Inc Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-1-S-0.5-20230329 Lab Sample ID: 880-26571-4

Date Collected: 03/29/23 09:55 **Matrix: Solid**
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 08:47	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		04/06/23 15:19	04/09/23 08:47	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		04/06/23 15:19	04/09/23 08:47	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		04/06/23 15:19	04/09/23 08:47	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		04/06/23 15:19	04/09/23 08:47	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		04/06/23 15:19	04/09/23 08:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/06/23 15:19*	*04/09/23 08:47*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*04/06/23 15:19*	*04/09/23 08:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**170**		49.9	15.0	mg/Kg			04/03/23 10:23	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	**23.3**	**J**	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 14:09	1
Diesel Range Organics (Over C10-C28)	**147**		49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 14:09	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/31/23 16:59	04/01/23 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/31/23 16:59*	*04/01/23 14:09*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/31/23 16:59*	*04/01/23 14:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1390**		25.0	1.97	mg/Kg			04/07/23 05:47	5

Client Sample ID: SB-3-S-2-20230329 Lab Sample ID: 880-26571-5

Date Collected: 03/29/23 10:18 **Matrix: Solid**
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 09:07	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		04/06/23 15:19	04/09/23 09:07	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		04/06/23 15:19	04/09/23 09:07	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		04/06/23 15:19	04/09/23 09:07	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		04/06/23 15:19	04/09/23 09:07	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		04/06/23 15:19	04/09/23 09:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*04/06/23 15:19*	*04/09/23 09:07*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*04/06/23 15:19*	*04/09/23 09:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**107**		49.8	14.9	mg/Kg			04/03/23 10:23	1

Client Sample Results

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-3-S-2-20230329
Lab Sample ID: 880-26571-5
Date Collected: 03/29/23 10:18
Matrix: Solid
Date Received: 03/29/23 17:40

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	19.1	J	49.8	14.9	mg/Kg		03/31/23 16:59	04/01/23 14:30	1
Diesel Range Organics (Over C10-C28)	87.9		49.8	14.9	mg/Kg		03/31/23 16:59	04/01/23 14:30	1
OII Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		03/31/23 16:59	04/01/23 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/31/23 16:59*	*04/01/23 14:30*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/31/23 16:59*	*04/01/23 14:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1180		25.0	1.98	mg/Kg			04/07/23 05:52	5

Client Sample ID: SB-2-S-2-20230329
Lab Sample ID: 880-26571-6
Date Collected: 03/29/23 10:22
Matrix: Solid
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 09:28	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		04/06/23 15:19	04/09/23 09:28	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		04/06/23 15:19	04/09/23 09:28	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		04/06/23 15:19	04/09/23 09:28	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		04/06/23 15:19	04/09/23 09:28	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		04/06/23 15:19	04/09/23 09:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*04/06/23 15:19*	*04/09/23 09:28*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/06/23 15:19*	*04/09/23 09:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	54.1		50.0	15.0	mg/Kg			04/03/23 10:23	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	33.2	J	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 16:59	1
Diesel Range Organics (Over C10-C28)	20.9	J	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 16:59	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/31/23 16:59*	*04/01/23 16:59*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/31/23 16:59*	*04/01/23 16:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	153		5.02	0.397	mg/Kg			04/07/23 05:57	1

Client Sample Results

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-4-S-2-20230329
Lab Sample ID: 880-26571-7
Date Collected: 03/29/23 10:40
Matrix: Solid
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 09:48	1
Toluene	**0.000538**	**J**	0.00198	0.000451	mg/Kg		04/06/23 15:19	04/09/23 09:48	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		04/06/23 15:19	04/09/23 09:48	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		04/06/23 15:19	04/09/23 09:48	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/06/23 15:19	04/09/23 09:48	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		04/06/23 15:19	04/09/23 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*04/06/23 15:19*	*04/09/23 09:48*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*04/06/23 15:19*	*04/09/23 09:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**165**		50.0	15.0	mg/Kg			04/03/23 10:23	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	**29.5**	**J**	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 14:52	1
Diesel Range Organics (Over C10-C28)	**135**		50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 14:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/31/23 16:59*	*04/01/23 14:52*	*1*
o-Terphenyl	*100*		*70 - 130*	*03/31/23 16:59*	*04/01/23 14:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2140**		24.9	1.96	mg/Kg			04/07/23 06:01	5

Client Sample ID: SB-1-S-2-20230329
Lab Sample ID: 880-26571-8
Date Collected: 03/29/23 10:48
Matrix: Solid
Date Received: 03/29/23 17:40

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		04/06/23 15:19	04/09/23 10:09	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/06/23 15:19	04/09/23 10:09	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/06/23 15:19	04/09/23 10:09	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/06/23 15:19	04/09/23 10:09	1
o-Xylene	**0.000378**	**J**	0.00201	0.000346	mg/Kg		04/06/23 15:19	04/09/23 10:09	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/06/23 15:19	04/09/23 10:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*04/06/23 15:19*	*04/09/23 10:09*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/06/23 15:19*	*04/09/23 10:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**88.8**		50.0	15.0	mg/Kg			04/03/23 10:23	1

Client Sample Results

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-1-S-2-20230329
Lab Sample ID: 880-26571-8
Date Collected: 03/29/23 10:48
Matrix: Solid
Date Received: 03/29/23 17:40

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	22.6	J	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:13	1
Diesel Range Organics (Over C10-C28)	66.2		50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:13	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/31/23 16:59*	*04/01/23 15:13*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/31/23 16:59*	*04/01/23 15:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2660		24.8	1.96	mg/Kg			04/07/23 06:06	5

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington LPU Control Battery

Job ID: 880-26571-1

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)
880-26571-1	SB-3-S-0-0.5-20230329	90	105
880-26571-1 MS	SB-3-S-0-0.5-20230329	105	108
880-26571-1 MSD	SB-3-S-0-0.5-20230329	102	110
880-26571-2	SB-2-S-0.5-20230329	97	106
880-26571-3	SB-4-S-0.5-20230329	101	104
880-26571-4	SB-1-S-0.5-20230329	99	104
880-26571-5	SB-3-S-2-20230329	92	105
880-26571-6	SB-2-S-2-20230329	104	107
880-26571-7	SB-4-S-2-20230329	103	108
880-26571-8	SB-1-S-2-20230329	103	107
LCS 880-50530/1-A	Lab Control Sample	97	107
LCSD 880-50530/2-A	Lab Control Sample Dup	105	106
MB 880-50514/5-A	Method Blank	92	98
MB 880-50530/5-A	Method Blank	89	98

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)
880-26571-1	SB-3-S-0-0.5-20230329	97	93
880-26571-2	SB-2-S-0.5-20230329	99	94
880-26571-3	SB-4-S-0.5-20230329	102	96
880-26571-4	SB-1-S-0.5-20230329	101	94
880-26571-5	SB-3-S-2-20230329	100	94
880-26571-6	SB-2-S-2-20230329	100	94
880-26571-7	SB-4-S-2-20230329	105	100
880-26571-8	SB-1-S-2-20230329	105	105
LCS 880-50055/2-A	Lab Control Sample	125	118
LCSD 880-50055/3-A	Lab Control Sample Dup	129	119
MB 880-50055/1-A	Method Blank	110	112

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50514/5-A
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/06/23 11:53	04/08/23 19:41	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/06/23 11:53	04/08/23 19:41	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/06/23 11:53	04/08/23 19:41	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/06/23 11:53	04/08/23 19:41	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/06/23 11:53	04/08/23 19:41	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/06/23 11:53	04/08/23 19:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*04/06/23 11:53*	*04/08/23 19:41*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/06/23 11:53*	*04/08/23 19:41*	*1*

Lab Sample ID: MB 880-50530/5-A
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50530

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/06/23 15:19	04/09/23 07:16	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/06/23 15:19	04/09/23 07:16	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/06/23 15:19	04/09/23 07:16	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/06/23 15:19	04/09/23 07:16	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/06/23 15:19	04/09/23 07:16	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/06/23 15:19	04/09/23 07:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*04/06/23 15:19*	*04/09/23 07:16*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/06/23 15:19*	*04/09/23 07:16*	*1*

Lab Sample ID: LCS 880-50530/1-A
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50530

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09653		mg/Kg		97	70 - 130
Toluene	0.100	0.09180		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.08493		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1671		mg/Kg		84	70 - 130
o-Xylene	0.100	0.08531		mg/Kg		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-50530/2-A
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50530

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1073		mg/Kg		107	70 - 130	11	35

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington LPU Control Battery

Job ID: 880-26571-1

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

Lab Sample ID: LCSD 880-50530/2-A
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50530

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1043		mg/Kg		104	70 - 130	13	35
Ethylbenzene			0.100	0.09784		mg/Kg		98	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.1938		mg/Kg		97	70 - 130	15	35
o-Xylene			0.100	0.09868		mg/Kg		99	70 - 130	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-26571-1 MS
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: SB-3-S-0-0.5-20230329
Prep Type: Total/NA
Prep Batch: 50530

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000387	U	0.100	0.08266		mg/Kg		82	70 - 130
Toluene	<0.000459	U	0.100	0.08099		mg/Kg		81	70 - 130
Ethylbenzene	<0.000568	U	0.100	0.07080		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00102	U F1	0.201	0.1394	F1	mg/Kg		69	70 - 130
o-Xylene	<0.000346	U	0.100	0.07236		mg/Kg		72	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 880-26571-1 MSD
Matrix: Solid
Analysis Batch: 50707

Client Sample ID: SB-3-S-0-0.5-20230329
Prep Type: Total/NA
Prep Batch: 50530

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000387	U	0.0990	0.09172		mg/Kg		93	70 - 130	10	35
Toluene	<0.000459	U	0.0990	0.08836		mg/Kg		89	70 - 130	9	35
Ethylbenzene	<0.000568	U	0.0990	0.07994		mg/Kg		81	70 - 130	12	35
m-Xylene & p-Xylene	<0.00102	U F1	0.198	0.1560		mg/Kg		79	70 - 130	11	35
o-Xylene	<0.000346	U	0.0990	0.07862		mg/Kg		79	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-50055/1-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50055

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		03/31/23 16:59	04/01/23 08:57	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington LPU Control Battery

Job ID: 880-26571-1

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

Lab Sample ID: MB 880-50055/1-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 08:57	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/31/23 16:59	04/01/23 08:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/31/23 16:59*	*04/01/23 08:57*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/31/23 16:59*	*04/01/23 08:57*	*1*

Lab Sample ID: LCS 880-50055/2-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	931.7		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.4		mg/Kg		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*125*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: LCSD 880-50055/3-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50055

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	973.6		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	891.8		mg/Kg		89	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*129*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50416/1-A
Matrix: Solid
Analysis Batch: 50618

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			04/07/23 03:58	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington LPU Control Battery

Job ID: 880-26571-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-50416/2-A
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.7		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-50416/3-A
Matrix: Solid
Analysis Batch: 50618

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	246.4		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 880-26571-1 MS
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: SB-3-S-0-0.5-20230329
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	3340		1260	4544		mg/Kg		96	90 - 110		

Lab Sample ID: 880-26571-1 MSD
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: SB-3-S-0-0.5-20230329
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3340		1260	4510		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: ARCADIS U.S. Inc Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

GC VOA

Prep Batch: 50514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-50514/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 50530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Total/NA	Solid	5030B	
880-26571-2	SB-2-S-0.5-20230329	Total/NA	Solid	5030B	
880-26571-3	SB-4-S-0.5-20230329	Total/NA	Solid	5030B	
880-26571-4	SB-1-S-0.5-20230329	Total/NA	Solid	5030B	
880-26571-5	SB-3-S-2-20230329	Total/NA	Solid	5030B	
880-26571-6	SB-2-S-2-20230329	Total/NA	Solid	5030B	
880-26571-7	SB-4-S-2-20230329	Total/NA	Solid	5030B	
880-26571-8	SB-1-S-2-20230329	Total/NA	Solid	5030B	
MB 880-50530/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-50530/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-50530/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-26571-1 MS	SB-3-S-0-0.5-20230329	Total/NA	Solid	5030B	
880-26571-1 MSD	SB-3-S-0-0.5-20230329	Total/NA	Solid	5030B	

Analysis Batch: 50707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Total/NA	Solid	8021B	50530
880-26571-2	SB-2-S-0.5-20230329	Total/NA	Solid	8021B	50530
880-26571-3	SB-4-S-0.5-20230329	Total/NA	Solid	8021B	50530
880-26571-4	SB-1-S-0.5-20230329	Total/NA	Solid	8021B	50530
880-26571-5	SB-3-S-2-20230329	Total/NA	Solid	8021B	50530
880-26571-6	SB-2-S-2-20230329	Total/NA	Solid	8021B	50530
880-26571-7	SB-4-S-2-20230329	Total/NA	Solid	8021B	50530
880-26571-8	SB-1-S-2-20230329	Total/NA	Solid	8021B	50530
MB 880-50514/5-A	Method Blank	Total/NA	Solid	8021B	50514
MB 880-50530/5-A	Method Blank	Total/NA	Solid	8021B	50530
LCS 880-50530/1-A	Lab Control Sample	Total/NA	Solid	8021B	50530
LCSD 880-50530/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50530
880-26571-1 MS	SB-3-S-0-0.5-20230329	Total/NA	Solid	8021B	50530
880-26571-1 MSD	SB-3-S-0-0.5-20230329	Total/NA	Solid	8021B	50530

GC Semi VOA

Prep Batch: 50055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Total/NA	Solid	8015NM Prep	
880-26571-2	SB-2-S-0.5-20230329	Total/NA	Solid	8015NM Prep	
880-26571-3	SB-4-S-0.5-20230329	Total/NA	Solid	8015NM Prep	
880-26571-4	SB-1-S-0.5-20230329	Total/NA	Solid	8015NM Prep	
880-26571-5	SB-3-S-2-20230329	Total/NA	Solid	8015NM Prep	
880-26571-6	SB-2-S-2-20230329	Total/NA	Solid	8015NM Prep	
880-26571-7	SB-4-S-2-20230329	Total/NA	Solid	8015NM Prep	
880-26571-8	SB-1-S-2-20230329	Total/NA	Solid	8015NM Prep	
MB 880-50055/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50055/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: ARCADIS U.S. Inc Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

GC Semi VOA

Analysis Batch: 50074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Total/NA	Solid	8015B NM	50055
880-26571-2	SB-2-S-0.5-20230329	Total/NA	Solid	8015B NM	50055
880-26571-3	SB-4-S-0.5-20230329	Total/NA	Solid	8015B NM	50055
880-26571-4	SB-1-S-0.5-20230329	Total/NA	Solid	8015B NM	50055
880-26571-5	SB-3-S-2-20230329	Total/NA	Solid	8015B NM	50055
880-26571-6	SB-2-S-2-20230329	Total/NA	Solid	8015B NM	50055
880-26571-7	SB-4-S-2-20230329	Total/NA	Solid	8015B NM	50055
880-26571-8	SB-1-S-2-20230329	Total/NA	Solid	8015B NM	50055
MB 880-50055/1-A	Method Blank	Total/NA	Solid	8015B NM	50055
LCS 880-50055/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50055
LCSD 880-50055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50055

Analysis Batch: 50152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Total/NA	Solid	8015 NM	
880-26571-2	SB-2-S-0.5-20230329	Total/NA	Solid	8015 NM	
880-26571-3	SB-4-S-0.5-20230329	Total/NA	Solid	8015 NM	
880-26571-4	SB-1-S-0.5-20230329	Total/NA	Solid	8015 NM	
880-26571-5	SB-3-S-2-20230329	Total/NA	Solid	8015 NM	
880-26571-6	SB-2-S-2-20230329	Total/NA	Solid	8015 NM	
880-26571-7	SB-4-S-2-20230329	Total/NA	Solid	8015 NM	
880-26571-8	SB-1-S-2-20230329	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Soluble	Solid	DI Leach	
880-26571-2	SB-2-S-0.5-20230329	Soluble	Solid	DI Leach	
880-26571-3	SB-4-S-0.5-20230329	Soluble	Solid	DI Leach	
880-26571-4	SB-1-S-0.5-20230329	Soluble	Solid	DI Leach	
880-26571-5	SB-3-S-2-20230329	Soluble	Solid	DI Leach	
880-26571-6	SB-2-S-2-20230329	Soluble	Solid	DI Leach	
880-26571-7	SB-4-S-2-20230329	Soluble	Solid	DI Leach	
880-26571-8	SB-1-S-2-20230329	Soluble	Solid	DI Leach	
MB 880-50416/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50416/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50416/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26571-1 MS	SB-3-S-0-0.5-20230329	Soluble	Solid	DI Leach	
880-26571-1 MSD	SB-3-S-0-0.5-20230329	Soluble	Solid	DI Leach	

Analysis Batch: 50618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26571-1	SB-3-S-0-0.5-20230329	Soluble	Solid	300.0	50416
880-26571-2	SB-2-S-0.5-20230329	Soluble	Solid	300.0	50416
880-26571-3	SB-4-S-0.5-20230329	Soluble	Solid	300.0	50416
880-26571-4	SB-1-S-0.5-20230329	Soluble	Solid	300.0	50416
880-26571-5	SB-3-S-2-20230329	Soluble	Solid	300.0	50416
880-26571-6	SB-2-S-2-20230329	Soluble	Solid	300.0	50416
880-26571-7	SB-4-S-2-20230329	Soluble	Solid	300.0	50416
880-26571-8	SB-1-S-2-20230329	Soluble	Solid	300.0	50416

QC Association Summary

Client: ARCADIS U.S. Inc Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

HPLC/IC (Continued)

Analysis Batch: 50618 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-50416/1-A	Method Blank	Soluble	Solid	300.0	50416
LCS 880-50416/2-A	Lab Control Sample	Soluble	Solid	300.0	50416
LCSD 880-50416/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50416
880-26571-1 MS	SB-3-S-0-0.5-20230329	Soluble	Solid	300.0	50416
880-26571-1 MSD	SB-3-S-0-0.5-20230329	Soluble	Solid	300.0	50416

Lab Chronicle

Client: ARCADIS U.S. Inc Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-3-S-0-0.5-20230329 Lab Sample ID: 880-26571-1

Date Collected: 03/29/23 09:48 **Matrix: Solid**
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 07:45	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 15:34	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50618	04/07/23 05:15	SMC	EET MID

Client Sample ID: SB-2-S-0.5-20230329 Lab Sample ID: 880-26571-2

Date Collected: 03/29/23 09:49 **Matrix: Solid**
Date Received: 03/29/23 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.04 g	5 mL	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 08:06	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 15:55	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50618	04/07/23 05:29	SMC	EET MID

Client Sample ID: SB-4-S-0.5-20230329 Lab Sample ID: 880-26571-3

Date Collected: 03/29/23 09:51 **Matrix: Solid**
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 08:26	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 16:37	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	50618	04/07/23 05:34	SMC	EET MID

Client Sample ID: SB-1-S-0.5-20230329 Lab Sample ID: 880-26571-4

Date Collected: 03/29/23 09:55 **Matrix: Solid**
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 08:47	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 14:09	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-1-S-0.5-20230329
Lab Sample ID: 880-26571-4
Date Collected: 03/29/23 09:55
Matrix: Solid
Date Received: 03/29/23 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50618	04/07/23 05:47	SMC	EET MID

Client Sample ID: SB-3-S-2-20230329
Lab Sample ID: 880-26571-5
Date Collected: 03/29/23 10:18
Matrix: Solid
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 09:07	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 14:30	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50618	04/07/23 05:52	SMC	EET MID

Client Sample ID: SB-2-S-2-20230329
Lab Sample ID: 880-26571-6
Date Collected: 03/29/23 10:22
Matrix: Solid
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 09:28	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 16:59	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50618	04/07/23 05:57	SMC	EET MID

Client Sample ID: SB-4-S-2-20230329
Lab Sample ID: 880-26571-7
Date Collected: 03/29/23 10:40
Matrix: Solid
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 09:48	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 14:52	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50618	04/07/23 06:01	SMC	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

Client Sample ID: SB-1-S-2-20230329
Lab Sample ID: 880-26571-8

Date Collected: 03/29/23 10:48
Matrix: Solid
Date Received: 03/29/23 17:40

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	50530	04/06/23 15:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50707	04/09/23 10:09	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50152	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 15:13	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50618	04/07/23 06:06	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
Job ID: 880-26571-1
Project/Site: Lovington LPU Control Battery

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: Lovington LPU Control Battery

Job ID: 880-26571-1

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: Lovington LPU Control Battery

Job ID: 880-26571-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26571-1	SB-3-S-0-0.5-20230329	Solid	03/29/23 09:48	03/29/23 17:40
880-26571-2	SB-2-S-0.5-20230329	Solid	03/29/23 09:49	03/29/23 17:40
880-26571-3	SB-4-S-0.5-20230329	Solid	03/29/23 09:51	03/29/23 17:40
880-26571-4	SB-1-S-0.5-20230329	Solid	03/29/23 09:55	03/29/23 17:40
880-26571-5	SB-3-S-2-20230329	Solid	03/29/23 10:18	03/29/23 17:40
880-26571-6	SB-2-S-2-20230329	Solid	03/29/23 10:22	03/29/23 17:40
880-26571-7	SB-4-S-2-20230329	Solid	03/29/23 10:40	03/29/23 17:40
880-26571-8	SB-1-S-2-20230329	Solid	03/29/23 10:48	03/29/23 17:40

Eurofins Midland
1211 W Florida Ave
Midland, TX 79701
Phone (432) 704-5440

Chain of Custody Record

eurofins | Environment Testing

26571

Client Information	Sampler: Gary S. Longwell	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-5489-722 2
Client Contact: Douglas Jordan	Phone: 432-288-0876	E-Mail: John Builes@et.eurofinsus com	State of Origin:	Page: 1 1 / 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 0001C			
Email: douglas jordan@arcadis com	WO #:			
Project Name: LPU Lovington [redacted] Central Battery	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-3-S-0-0.5-20230329	03/29/23	0948	G	Solid			X		
SB-2-S-0-0.5-20230329	03/29/23	0949	G	Solid			X		
SB-4-S-0-0.5-20230329	03/29/23	0951	G	Solid			X		
SB-1-S-0-0.5-20230329	03/29/23	0955	G	Solid			X		
SB-3-S-2-20230329	03/29/23	1018	G	Solid			X		
SB-2-S-2-20230329	03/29/23	1022	G	Solid			X		
SB-4-S-2-20230329	03/29/23	1040	G	Solid			X		
SB-1-S-2-20230329	03/29/23	1048	G	Solid			X		
				Solid					

880-26571 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	Company	Received by	Date/Time	Company
Gary S. Longwell	03/29/23 / 1740	ARCADIS		5/29/23 1740	
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. 4.3/4.0

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-26571-1

Login Number: 26571
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 2/12/2024 7:40:19 PM

JOB DESCRIPTION

LPU Injection Station
Lovington NM

JOB NUMBER

880-38883-1

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
2/12/2024 7:40:19 PM

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

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Laboratory Job ID: 880-38883-1
SDG: Lovington NM

Table of Contents

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: LPU Injection Station

Job ID: 880-38883-1

Job ID: 880-38883-1 Eurofins Midland

Job Narrative
880-38883-1

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

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

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

Receipt
The samples were received on 2/2/2024 2:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72706 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72706/82).

Method 8021B: Surrogate recovery for the following samples were outside control limits: SB-8-S-2'-240130 (880-38883-8), SB-9-S-2'-240130 (880-38883-10), SB-10-S-2'-240130 (880-38883-12), SB-12-S-1.5'-240130 (880-38883-16) and (890-6075-A-21-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72706 recovered above the upper control limit for Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72706/113).

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: The surrogate recovery for the blank associated with preparation batch 880-72465 and analytical batch 880-72794 was outside the upper control limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72372 and analytical batch 880-72625 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-5-S-1'-240130

Lab Sample ID: 880-38883-1
Matrix: Solid
Date Collected: 01/30/24 12:00
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**344**	**F1**	4.96	0.392	mg/Kg			02/08/24 09:01	1

Client Sample ID: SB-5-S-1.5'-240130

Lab Sample ID: 880-38883-2
Matrix: Solid
Date Collected: 01/30/24 12:10
Date Received: 02/02/24 14:00

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		02/09/24 13:04	02/11/24 03:25	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		02/09/24 13:04	02/11/24 03:25	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		02/09/24 13:04	02/11/24 03:25	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		02/09/24 13:04	02/11/24 03:25	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		02/09/24 13:04	02/11/24 03:25	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		02/09/24 13:04	02/11/24 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*02/09/24 13:04*	*02/11/24 03:25*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*02/09/24 13:04*	*02/11/24 03:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			02/11/24 03:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**20.7**	**J**	49.6	14.9	mg/Kg			02/10/24 23:57	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	<14.9	U	49.6	14.9	mg/Kg		02/06/24 10:41	02/10/24 23:57	1
Diesel Range Organics (Over C10-C28)	**20.7**	**J**	49.6	14.9	mg/Kg		02/06/24 10:41	02/10/24 23:57	1
OII Range Organics (Over C28-C36)	<14.9	U	49.6	14.9	mg/Kg		02/06/24 10:41	02/10/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*02/06/24 10:41*	*02/10/24 23:57*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/06/24 10:41*	*02/10/24 23:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**406**		5.01	0.396	mg/Kg			02/08/24 09:21	1

Client Sample ID: SB-6-S-1'-240130

Lab Sample ID: 880-38883-3
Matrix: Solid
Date Collected: 01/30/24 12:30
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		5.03	0.397	mg/Kg			02/08/24 09:28	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-6-S-1.5'-240130

Lab Sample ID: 880-38883-4
Matrix: Solid
Date Collected: 01/30/24 12:40
Date Received: 02/02/24 14:00

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		02/09/24 13:04	02/11/24 03:45	1
Toluene	**0.000569**	**J**	0.00201	0.000459	mg/Kg		02/09/24 13:04	02/11/24 03:45	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		02/09/24 13:04	02/11/24 03:45	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		02/09/24 13:04	02/11/24 03:45	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		02/09/24 13:04	02/11/24 03:45	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		02/09/24 13:04	02/11/24 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*02/09/24 13:04*	*02/11/24 03:45*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*02/09/24 13:04*	*02/11/24 03:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			02/11/24 03:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**44.3**	**J**	50.1	15.0	mg/Kg			02/11/24 03:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.1	15.0	mg/Kg		02/06/24 10:41	02/11/24 03:50	1
Diesel Range Organics (Over C10-C28)	**44.3**	**J**	50.1	15.0	mg/Kg		02/06/24 10:41	02/11/24 03:50	1
OII Range Organics (Over C28-C36)	<15.0	U	50.1	15.0	mg/Kg		02/06/24 10:41	02/11/24 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*02/06/24 10:41*	*02/11/24 03:50*	*1*
o-Terphenyl	*107*		*70 - 130*	*02/06/24 10:41*	*02/11/24 03:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**324**		5.04	0.398	mg/Kg			02/08/24 09:35	1

Client Sample ID: SB-7-S-1'-240130

Lab Sample ID: 880-38883-5
Matrix: Solid
Date Collected: 01/30/24 13:00
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.4**		5.04	0.398	mg/Kg			02/08/24 09:41	1

Client Sample ID: SB-7-S-1.5'-240130

Lab Sample ID: 880-38883-6
Matrix: Solid
Date Collected: 01/30/24 13:10
Date Received: 02/02/24 14:00

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		02/09/24 13:04	02/11/24 04:05	1
Toluene	**0.000659**	**J**	0.00200	0.000457	mg/Kg		02/09/24 13:04	02/11/24 04:05	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		02/09/24 13:04	02/11/24 04:05	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-7-S-1.5'-240130

Lab Sample ID: 880-38883-6
Matrix: Solid
Date Collected: 01/30/24 13:10
Date Received: 02/02/24 14:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		02/09/24 13:04	02/11/24 04:05	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		02/09/24 13:04	02/11/24 04:05	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		02/09/24 13:04	02/11/24 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*02/09/24 13:04*	*02/11/24 04:05*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*02/09/24 13:04*	*02/11/24 04:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			02/11/24 04:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**45.0**	**J**	50.4	15.1	mg/Kg			02/11/24 03:29	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	<15.1	U	50.4	15.1	mg/Kg		02/06/24 10:41	02/11/24 03:29	1
Diesel Range Organics (Over C10-C28)	**45.0**	**J**	50.4	15.1	mg/Kg		02/06/24 10:41	02/11/24 03:29	1
OII Range Organics (Over C28-C36)	<15.1	U	50.4	15.1	mg/Kg		02/06/24 10:41	02/11/24 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*02/06/24 10:41*	*02/11/24 03:29*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/06/24 10:41*	*02/11/24 03:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82.4**		4.96	0.392	mg/Kg			02/08/24 10:22	1

Client Sample ID: SB-8-S-1'-240130

Lab Sample ID: 880-38883-7
Matrix: Solid
Date Collected: 01/30/24 13:30
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**203**		4.97	0.393	mg/Kg			02/08/24 10:29	1

Client Sample ID: SB-8-S-2'-240130

Lab Sample ID: 880-38883-8
Matrix: Solid
Date Collected: 01/30/24 13:40
Date Received: 02/02/24 14:00

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		02/09/24 13:08	02/11/24 18:57	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		02/09/24 13:08	02/11/24 18:57	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		02/09/24 13:08	02/11/24 18:57	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		02/09/24 13:08	02/11/24 18:57	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		02/09/24 13:08	02/11/24 18:57	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		02/09/24 13:08	02/11/24 18:57	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-8-S-2'-240130

Lab Sample ID: 880-38883-8
Matrix: Solid
Date Collected: 01/30/24 13:40
Date Received: 02/02/24 14:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*02/09/24 13:08*	*02/11/24 18:57*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/09/24 13:08*	*02/11/24 18:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			02/11/24 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**201**		50.5	15.2	mg/Kg			02/11/24 01:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.2	U	50.5	15.2	mg/Kg		02/06/24 10:41	02/11/24 01:43	1
Diesel Range Organics (Over C10-C28)	**201**		50.5	15.2	mg/Kg		02/06/24 10:41	02/11/24 01:43	1
OII Range Organics (Over C28-C36)	<15.2	U	50.5	15.2	mg/Kg		02/06/24 10:41	02/11/24 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*105*		*70 - 130*	*02/06/24 10:41*	*02/11/24 01:43*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/06/24 10:41*	*02/11/24 01:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**157**		5.00	0.395	mg/Kg			02/08/24 10:36	1

Client Sample ID: SB-9-S-1'-240130

Lab Sample ID: 880-38883-9
Matrix: Solid
Date Collected: 01/30/24 13:50
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**143**		5.02	0.397	mg/Kg			02/08/24 10:42	1

Client Sample ID: SB-9-S-2'-240130

Lab Sample ID: 880-38883-10
Matrix: Solid
Date Collected: 01/30/24 14:00
Date Received: 02/02/24 14:00

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		02/09/24 13:08	02/11/24 19:25	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		02/09/24 13:08	02/11/24 19:25	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		02/09/24 13:08	02/11/24 19:25	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		02/09/24 13:08	02/11/24 19:25	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		02/09/24 13:08	02/11/24 19:25	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		02/09/24 13:08	02/11/24 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*155*	*S1+*	*70 - 130*	*02/09/24 13:08*	*02/11/24 19:25*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/09/24 13:08*	*02/11/24 19:25*	*1*

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-9-S-2'-240130

Lab Sample ID: 880-38883-10
Matrix: Solid
Date Collected: 01/30/24 14:00
Date Received: 02/02/24 14:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			02/11/24 19:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**298**		50.0	15.0	mg/Kg			02/11/24 02:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		02/06/24 10:41	02/11/24 02:04	1
Diesel Range Organics (Over C10-C28)	**298**		50.0	15.0	mg/Kg		02/06/24 10:41	02/11/24 02:04	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/06/24 10:41	02/11/24 02:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*02/06/24 10:41*	*02/11/24 02:04*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/06/24 10:41*	*02/11/24 02:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**113**		5.03	0.397	mg/Kg			02/08/24 10:49	1

Client Sample ID: SB-10-S-1'-240130

Lab Sample ID: 880-38883-11
Matrix: Solid
Date Collected: 01/30/24 14:05
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1970**		50.5	3.99	mg/Kg			02/08/24 10:56	10

Client Sample ID: SB-10-S-2'-240130

Lab Sample ID: 880-38883-12
Matrix: Solid
Date Collected: 01/30/24 14:10
Date Received: 02/02/24 14:00

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		02/09/24 13:08	02/11/24 19:53	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		02/09/24 13:08	02/11/24 19:53	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		02/09/24 13:08	02/11/24 19:53	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		02/09/24 13:08	02/11/24 19:53	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		02/09/24 13:08	02/11/24 19:53	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		02/09/24 13:08	02/11/24 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*15*	*S1-*	*70 - 130*	*02/09/24 13:08*	*02/11/24 19:53*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/09/24 13:08*	*02/11/24 19:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			02/11/24 19:53	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-10-S-2'-240130

Lab Sample ID: 880-38883-12
Matrix: Solid
Date Collected: 01/30/24 14:10
Date Received: 02/02/24 14:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**44.9**	**J**	50.0	15.0	mg/Kg			02/11/24 01:22	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	<15.0	U	50.0	15.0	mg/Kg		02/06/24 10:41	02/11/24 01:22	1
Diesel Range Organics (Over C10-C28)	**44.9**	**J**	50.0	15.0	mg/Kg		02/06/24 10:41	02/11/24 01:22	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/06/24 10:41	02/11/24 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*02/06/24 10:41*	*02/11/24 01:22*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/06/24 10:41*	*02/11/24 01:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**353**		4.99	0.394	mg/Kg			02/08/24 11:16	1

Client Sample ID: SB-11-S-1'-240130

Lab Sample ID: 880-38883-13
Matrix: Solid
Date Collected: 01/30/24 14:15
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1730**		25.1	1.98	mg/Kg			02/08/24 11:23	5

Client Sample ID: SB-11-S-2'-240130

Lab Sample ID: 880-38883-14
Matrix: Solid
Date Collected: 01/30/24 14:20
Date Received: 02/02/24 14:00

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		02/09/24 13:08	02/11/24 20:21	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		02/09/24 13:08	02/11/24 20:21	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		02/09/24 13:08	02/11/24 20:21	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		02/09/24 13:08	02/11/24 20:21	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		02/09/24 13:08	02/11/24 20:21	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		02/09/24 13:08	02/11/24 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*02/09/24 13:08*	*02/11/24 20:21*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/09/24 13:08*	*02/11/24 20:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			02/11/24 20:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**15.9**	**J**	49.8	14.9	mg/Kg			02/11/24 00:40	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-11-S-2'-240130

Lab Sample ID: 880-38883-14
Matrix: Solid
Date Collected: 01/30/24 14:20
Date Received: 02/02/24 14:00

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	<14.9	U	49.8	14.9	mg/Kg		02/06/24 10:41	02/11/24 00:40	1
Diesel Range Organics (Over C10-C28)	**15.9**	**J**	49.8	14.9	mg/Kg		02/06/24 10:41	02/11/24 00:40	1
OII Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		02/06/24 10:41	02/11/24 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*02/06/24 10:41*	*02/11/24 00:40*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/06/24 10:41*	*02/11/24 00:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		25.1	1.98	mg/Kg			02/08/24 11:43	5

Client Sample ID: SB-12-S-1'-240130

Lab Sample ID: 880-38883-15
Matrix: Solid
Date Collected: 01/30/24 14:25
Date Received: 02/02/24 14:00

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1240**		24.9	1.97	mg/Kg			02/08/24 11:50	5

Client Sample ID: SB-12-S-1.5'-240130

Lab Sample ID: 880-38883-16
Matrix: Solid
Date Collected: 01/30/24 14:30
Date Received: 02/02/24 14:00

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		02/09/24 13:08	02/11/24 20:49	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		02/09/24 13:08	02/11/24 20:49	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		02/09/24 13:08	02/11/24 20:49	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		02/09/24 13:08	02/11/24 20:49	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		02/09/24 13:08	02/11/24 20:49	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		02/09/24 13:08	02/11/24 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*02/09/24 13:08*	*02/11/24 20:49*	*1*
1,4-Difluorobenzene (Surr)	*129*		*70 - 130*	*02/09/24 13:08*	*02/11/24 20:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			02/11/24 20:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**24.0**	**J**	49.6	14.9	mg/Kg			02/11/24 01:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.6	14.9	mg/Kg		02/06/24 10:41	02/11/24 01:01	1
Diesel Range Organics (Over C10-C28)	**24.0**	**J**	49.6	14.9	mg/Kg		02/06/24 10:41	02/11/24 01:01	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-12-S-1.5'-240130
Date Collected: 01/30/24 14:30
Date Received: 02/02/24 14:00

Lab Sample ID: 880-38883-16
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)	<14.9	U	49.6	14.9	mg/Kg		02/06/24 10:41	02/11/24 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*02/06/24 10:41*	*02/11/24 01:01*	*1*
o-Terphenyl	*101*		*70 - 130*	*02/06/24 10:41*	*02/11/24 01:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		4.99	0.394	mg/Kg			02/08/24 11:57	1

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington 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)
880-38883-2	SB-5-S-1.5'-240130	83	74
880-38883-4	SB-6-S-1.5'-240130	87	79
880-38883-6	SB-7-S-1.5'-240130	92	72
880-38883-8	SB-8-S-2'-240130	134 S1+	110
880-38883-10	SB-9-S-2'-240130	155 S1+	99
880-38883-12	SB-10-S-2'-240130	15 S1-	83
880-38883-14	SB-11-S-2'-240130	126	92
880-38883-16	SB-12-S-1.5'-240130	143 S1+	129
LCS 880-72766/1-A	Lab Control Sample	112	101
LCS 880-72771/1-A	Lab Control Sample	127	115
LCSD 880-72766/2-A	Lab Control Sample Dup	115	101
LCSD 880-72771/2-A	Lab Control Sample Dup	119	92
MB 880-72502/5-A	Method Blank	73	83
MB 880-72507/5-A	Method Blank	76	79
MB 880-72766/5-A	Method Blank	75	80
MB 880-72771/5-A	Method Blank	101	95

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)
880-38883-2	SB-5-S-1.5'-240130	124	105
880-38883-4	SB-6-S-1.5'-240130	125	107
880-38883-6	SB-7-S-1.5'-240130	106	89
880-38883-8	SB-8-S-2'-240130	105	86
880-38883-10	SB-9-S-2'-240130	111	86
880-38883-12	SB-10-S-2'-240130	99	87
880-38883-14	SB-11-S-2'-240130	114	97
880-38883-16	SB-12-S-1.5'-240130	125	101
LCS 880-72465/2-A	Lab Control Sample	106	103
LCSD 880-72465/3-A	Lab Control Sample Dup	105	105
MB 880-72465/1-A	Method Blank	156 S1+	129

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72502/5-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72502

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/06/24 13:27	02/10/24 09:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*02/06/24 13:27*	*02/10/24 09:00*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/06/24 13:27*	*02/10/24 09:00*	*1*

Lab Sample ID: MB 880-72507/5-A
Matrix: Solid
Analysis Batch: 72703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/06/24 13:59	02/10/24 20:56	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/06/24 13:59	02/10/24 20:56	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/06/24 13:59	02/10/24 20:56	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/06/24 13:59	02/10/24 20:56	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/06/24 13:59	02/10/24 20:56	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/06/24 13:59	02/10/24 20:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/06/24 13:59*	*02/10/24 20:56*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*02/06/24 13:59*	*02/10/24 20:56*	*1*

Lab Sample ID: MB 880-72766/5-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72766

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/09/24 13:04	02/10/24 20:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*02/09/24 13:04*	*02/10/24 20:12*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*02/09/24 13:04*	*02/10/24 20:12*	*1*

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

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

Lab Sample ID: LCS 880-72766/1-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72766

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1162		mg/Kg		116	70 - 130		
Toluene			0.100	0.1119		mg/Kg		112	70 - 130		
Ethylbenzene			0.100	0.1237		mg/Kg		124	70 - 130		
m-Xylene & p-Xylene			0.200	0.2474		mg/Kg		124	70 - 130		
o-Xylene			0.100	0.1188		mg/Kg		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-72766/2-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72766

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1164		mg/Kg		116	70 - 130	0	35
Toluene			0.100	0.1145		mg/Kg		114	70 - 130	2	35
Ethylbenzene			0.100	0.1267		mg/Kg		127	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2603		mg/Kg		130	70 - 130	5	35
o-Xylene			0.100	0.1250		mg/Kg		125	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-72771/5-A
Matrix: Solid
Analysis Batch: 72703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72771

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/09/24 13:08	02/11/24 10:26	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/09/24 13:08	02/11/24 10:26	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/09/24 13:08	02/11/24 10:26	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/09/24 13:08	02/11/24 10:26	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/09/24 13:08	02/11/24 10:26	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/09/24 13:08	02/11/24 10:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/09/24 13:08*	*02/11/24 10:26*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/09/24 13:08*	*02/11/24 10:26*	*1*

Lab Sample ID: LCS 880-72771/1-A
Matrix: Solid
Analysis Batch: 72703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72771

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09677		mg/Kg		97	70 - 130		
Toluene			0.100	0.1042		mg/Kg		104	70 - 130		

Eurofins Midland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

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

Lab Sample ID: LCS 880-72771/1-A
Matrix: Solid
Analysis Batch: 72703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72771

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylbenzene			0.100	0.1169		mg/Kg		117	70 - 130		
m-Xylene & p-Xylene			0.200	0.2498		mg/Kg		125	70 - 130		
o-Xylene			0.100	0.1148		mg/Kg		115	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: LCSD 880-72771/2-A
Matrix: Solid
Analysis Batch: 72703

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72771

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1129		mg/Kg		113	70 - 130	15	35
Toluene			0.100	0.1151		mg/Kg		115	70 - 130	10	35
Ethylbenzene			0.100	0.1166		mg/Kg		117	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2600		mg/Kg		130	70 - 130	4	35
o-Xylene			0.100	0.1235		mg/Kg		123	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

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

Lab Sample ID: MB 880-72465/1-A
Matrix: Solid
Analysis Batch: 72794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72465

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		02/06/24 10:41	02/10/24 18:47	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/06/24 10:41	02/10/24 18:47	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/06/24 10:41	02/10/24 18:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*156*	*S1+*	*70 - 130*	*02/06/24 10:41*	*02/10/24 18:47*	*1*
o-Terphenyl	*129*		*70 - 130*	*02/06/24 10:41*	*02/10/24 18:47*	*1*

Lab Sample ID: LCS 880-72465/2-A
Matrix: Solid
Analysis Batch: 72794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72465

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	952.7		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	978.5		mg/Kg		98	70 - 130		

Eurofins Midland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

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

Lab Sample ID: LCS 880-72465/2-A
Matrix: Solid
Analysis Batch: 72794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72465

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-72465/3-A
Matrix: Solid
Analysis Batch: 72794

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72465

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	951.9		mg/Kg		95	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	962.2		mg/Kg		96	70 - 130	2	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72372/1-A
Matrix: Solid
Analysis Batch: 72625

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			02/08/24 08:40	1

Lab Sample ID: LCS 880-72372/2-A
Matrix: Solid
Analysis Batch: 72625

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	246.0		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-72372/3-A
Matrix: Solid
Analysis Batch: 72625

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	245.8		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-38883-1 MS
Matrix: Solid
Analysis Batch: 72625

Client Sample ID: SB-5-S-1'-240130
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	344	F1	248	459.8	F1	mg/Kg		47	90 - 110		

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-38883-1 MSD
Matrix: Solid
Analysis Batch: 72625

Client Sample ID: SB-5-S-1'-240130
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	344	F1	248	457.3	F1	mg/Kg		46	90 - 110	1	20

Lab Sample ID: 880-38883-11 MS
Matrix: Solid
Analysis Batch: 72625

Client Sample ID: SB-10-S-1'-240130
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1970		2530	4533		mg/Kg		102	90 - 110

Lab Sample ID: 880-38883-11 MSD
Matrix: Solid
Analysis Batch: 72625

Client Sample ID: SB-10-S-1'-240130
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1970		2530	4539		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

GC VOA

Prep Batch: 72502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72502/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 72507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72507/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 72703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-8	SB-8-S-2'-240130	Total/NA	Solid	8021B	72771
880-38883-10	SB-9-S-2'-240130	Total/NA	Solid	8021B	72771
880-38883-12	SB-10-S-2'-240130	Total/NA	Solid	8021B	72771
880-38883-14	SB-11-S-2'-240130	Total/NA	Solid	8021B	72771
880-38883-16	SB-12-S-1.5'-240130	Total/NA	Solid	8021B	72771
MB 880-72507/5-A	Method Blank	Total/NA	Solid	8021B	72507
MB 880-72771/5-A	Method Blank	Total/NA	Solid	8021B	72771
LCS 880-72771/1-A	Lab Control Sample	Total/NA	Solid	8021B	72771
LCSD 880-72771/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72771

Analysis Batch: 72706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-2	SB-5-S-1.5'-240130	Total/NA	Solid	8021B	72766
880-38883-4	SB-6-S-1.5'-240130	Total/NA	Solid	8021B	72766
880-38883-6	SB-7-S-1.5'-240130	Total/NA	Solid	8021B	72766
MB 880-72502/5-A	Method Blank	Total/NA	Solid	8021B	72502
MB 880-72766/5-A	Method Blank	Total/NA	Solid	8021B	72766
LCS 880-72766/1-A	Lab Control Sample	Total/NA	Solid	8021B	72766
LCSD 880-72766/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72766

Prep Batch: 72766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-2	SB-5-S-1.5'-240130	Total/NA	Solid	5030B	
880-38883-4	SB-6-S-1.5'-240130	Total/NA	Solid	5030B	
880-38883-6	SB-7-S-1.5'-240130	Total/NA	Solid	5030B	
MB 880-72766/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-72766/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-72766/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Prep Batch: 72771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-8	SB-8-S-2'-240130	Total/NA	Solid	5030B	
880-38883-10	SB-9-S-2'-240130	Total/NA	Solid	5030B	
880-38883-12	SB-10-S-2'-240130	Total/NA	Solid	5030B	
880-38883-14	SB-11-S-2'-240130	Total/NA	Solid	5030B	
880-38883-16	SB-12-S-1.5'-240130	Total/NA	Solid	5030B	
MB 880-72771/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-72771/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-72771/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 72981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-2	SB-5-S-1.5'-240130	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

GC VOA (Continued)

Analysis Batch: 72981 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-4	SB-6-S-1.5'-240130	Total/NA	Solid	Total BTEX	
880-38883-6	SB-7-S-1.5'-240130	Total/NA	Solid	Total BTEX	
880-38883-8	SB-8-S-2'-240130	Total/NA	Solid	Total BTEX	
880-38883-10	SB-9-S-2'-240130	Total/NA	Solid	Total BTEX	
880-38883-12	SB-10-S-2'-240130	Total/NA	Solid	Total BTEX	
880-38883-14	SB-11-S-2'-240130	Total/NA	Solid	Total BTEX	
880-38883-16	SB-12-S-1.5'-240130	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-2	SB-5-S-1.5'-240130	Total/NA	Solid	8015NM Prep	
880-38883-4	SB-6-S-1.5'-240130	Total/NA	Solid	8015NM Prep	
880-38883-6	SB-7-S-1.5'-240130	Total/NA	Solid	8015NM Prep	
880-38883-8	SB-8-S-2'-240130	Total/NA	Solid	8015NM Prep	
880-38883-10	SB-9-S-2'-240130	Total/NA	Solid	8015NM Prep	
880-38883-12	SB-10-S-2'-240130	Total/NA	Solid	8015NM Prep	
880-38883-14	SB-11-S-2'-240130	Total/NA	Solid	8015NM Prep	
880-38883-16	SB-12-S-1.5'-240130	Total/NA	Solid	8015NM Prep	
MB 880-72465/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72465/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72465/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-2	SB-5-S-1.5'-240130	Total/NA	Solid	8015B NM	72465
880-38883-4	SB-6-S-1.5'-240130	Total/NA	Solid	8015B NM	72465
880-38883-6	SB-7-S-1.5'-240130	Total/NA	Solid	8015B NM	72465
880-38883-8	SB-8-S-2'-240130	Total/NA	Solid	8015B NM	72465
880-38883-10	SB-9-S-2'-240130	Total/NA	Solid	8015B NM	72465
880-38883-12	SB-10-S-2'-240130	Total/NA	Solid	8015B NM	72465
880-38883-14	SB-11-S-2'-240130	Total/NA	Solid	8015B NM	72465
880-38883-16	SB-12-S-1.5'-240130	Total/NA	Solid	8015B NM	72465
MB 880-72465/1-A	Method Blank	Total/NA	Solid	8015B NM	72465
LCS 880-72465/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72465
LCSD 880-72465/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72465

Analysis Batch: 72963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-2	SB-5-S-1.5'-240130	Total/NA	Solid	8015 NM	
880-38883-4	SB-6-S-1.5'-240130	Total/NA	Solid	8015 NM	
880-38883-6	SB-7-S-1.5'-240130	Total/NA	Solid	8015 NM	
880-38883-8	SB-8-S-2'-240130	Total/NA	Solid	8015 NM	
880-38883-10	SB-9-S-2'-240130	Total/NA	Solid	8015 NM	
880-38883-12	SB-10-S-2'-240130	Total/NA	Solid	8015 NM	
880-38883-14	SB-11-S-2'-240130	Total/NA	Solid	8015 NM	
880-38883-16	SB-12-S-1.5'-240130	Total/NA	Solid	8015 NM	

QC Association Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

HPLC/IC

Leach Batch: 72372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-1	SB-5-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-2	SB-5-S-1.5'-240130	Soluble	Solid	DI Leach	
880-38883-3	SB-6-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-4	SB-6-S-1.5'-240130	Soluble	Solid	DI Leach	
880-38883-5	SB-7-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-6	SB-7-S-1.5'-240130	Soluble	Solid	DI Leach	
880-38883-7	SB-8-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-8	SB-8-S-2'-240130	Soluble	Solid	DI Leach	
880-38883-9	SB-9-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-10	SB-9-S-2'-240130	Soluble	Solid	DI Leach	
880-38883-11	SB-10-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-12	SB-10-S-2'-240130	Soluble	Solid	DI Leach	
880-38883-13	SB-11-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-14	SB-11-S-2'-240130	Soluble	Solid	DI Leach	
880-38883-15	SB-12-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-16	SB-12-S-1.5'-240130	Soluble	Solid	DI Leach	
MB 880-72372/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72372/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72372/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38883-1 MS	SB-5-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-1 MSD	SB-5-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-11 MS	SB-10-S-1'-240130	Soluble	Solid	DI Leach	
880-38883-11 MSD	SB-10-S-1'-240130	Soluble	Solid	DI Leach	

Analysis Batch: 72625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38883-1	SB-5-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-2	SB-5-S-1.5'-240130	Soluble	Solid	300.0	72372
880-38883-3	SB-6-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-4	SB-6-S-1.5'-240130	Soluble	Solid	300.0	72372
880-38883-5	SB-7-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-6	SB-7-S-1.5'-240130	Soluble	Solid	300.0	72372
880-38883-7	SB-8-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-8	SB-8-S-2'-240130	Soluble	Solid	300.0	72372
880-38883-9	SB-9-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-10	SB-9-S-2'-240130	Soluble	Solid	300.0	72372
880-38883-11	SB-10-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-12	SB-10-S-2'-240130	Soluble	Solid	300.0	72372
880-38883-13	SB-11-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-14	SB-11-S-2'-240130	Soluble	Solid	300.0	72372
880-38883-15	SB-12-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-16	SB-12-S-1.5'-240130	Soluble	Solid	300.0	72372
MB 880-72372/1-A	Method Blank	Soluble	Solid	300.0	72372
LCS 880-72372/2-A	Lab Control Sample	Soluble	Solid	300.0	72372
LCSD 880-72372/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72372
880-38883-1 MS	SB-5-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-1 MSD	SB-5-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-11 MS	SB-10-S-1'-240130	Soluble	Solid	300.0	72372
880-38883-11 MSD	SB-10-S-1'-240130	Soluble	Solid	300.0	72372

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-5-S-1'-240130

Lab Sample ID: 880-38883-1
Matrix: Solid
Date Collected: 01/30/24 12:00
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 09:01	CH	EET MID

Client Sample ID: SB-5-S-1.5'-240130

Lab Sample ID: 880-38883-2
Matrix: Solid
Date Collected: 01/30/24 12:10
Date Received: 02/02/24 14:00

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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 03:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 03:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/10/24 23:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/10/24 23:57	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 09:21	CH	EET MID

Client Sample ID: SB-6-S-1'-240130

Lab Sample ID: 880-38883-3
Matrix: Solid
Date Collected: 01/30/24 12:30
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 09:28	CH	EET MID

Client Sample ID: SB-6-S-1.5'-240130

Lab Sample ID: 880-38883-4
Matrix: Solid
Date Collected: 01/30/24 12:40
Date Received: 02/02/24 14:00

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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 03:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 03:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 03:50	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 03:50	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 09:35	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-7-S-1'-240130

Lab Sample ID: 880-38883-5
Matrix: Solid
Date Collected: 01/30/24 13:00
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 09:41	CH	EET MID

Client Sample ID: SB-7-S-1.5'-240130

Lab Sample ID: 880-38883-6
Matrix: Solid
Date Collected: 01/30/24 13:10
Date Received: 02/02/24 14:00

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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 04:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 04:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 03:29	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 03:29	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 10:22	CH	EET MID

Client Sample ID: SB-8-S-1'-240130

Lab Sample ID: 880-38883-7
Matrix: Solid
Date Collected: 01/30/24 13:30
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 10:29	CH	EET MID

Client Sample ID: SB-8-S-2'-240130

Lab Sample ID: 880-38883-8
Matrix: Solid
Date Collected: 01/30/24 13:40
Date Received: 02/02/24 14:00

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	72771	02/09/24 13:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72703	02/11/24 18:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 18:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 01:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 01:43	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 10:36	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-9-S-1'-240130

Lab Sample ID: 880-38883-9
Matrix: Solid
Date Collected: 01/30/24 13:50
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 10:42	CH	EET MID

Client Sample ID: SB-9-S-2'-240130

Lab Sample ID: 880-38883-10
Matrix: Solid
Date Collected: 01/30/24 14:00
Date Received: 02/02/24 14:00

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	72771	02/09/24 13:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72703	02/11/24 19:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 19:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 02:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 02:04	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 10:49	CH	EET MID

Client Sample ID: SB-10-S-1'-240130

Lab Sample ID: 880-38883-11
Matrix: Solid
Date Collected: 01/30/24 14:05
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		10			72625	02/08/24 10:56	CH	EET MID

Client Sample ID: SB-10-S-2'-240130

Lab Sample ID: 880-38883-12
Matrix: Solid
Date Collected: 01/30/24 14:10
Date Received: 02/02/24 14:00

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	72771	02/09/24 13:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72703	02/11/24 19:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 19:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 01:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 01:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 11:16	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Client Sample ID: SB-11-S-1'-240130

Lab Sample ID: 880-38883-13
Matrix: Solid
Date Collected: 01/30/24 14:15
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		5			72625	02/08/24 11:23	CH	EET MID

Client Sample ID: SB-11-S-2'-240130

Lab Sample ID: 880-38883-14
Matrix: Solid
Date Collected: 01/30/24 14:20
Date Received: 02/02/24 14:00

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	72771	02/09/24 13:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72703	02/11/24 20:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 20:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 00:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 00:40	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		5			72625	02/08/24 11:43	CH	EET MID

Client Sample ID: SB-12-S-1'-240130

Lab Sample ID: 880-38883-15
Matrix: Solid
Date Collected: 01/30/24 14:25
Date Received: 02/02/24 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		5			72625	02/08/24 11:50	CH	EET MID

Client Sample ID: SB-12-S-1.5'-240130

Lab Sample ID: 880-38883-16
Matrix: Solid
Date Collected: 01/30/24 14:30
Date Received: 02/02/24 14:00

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	72771	02/09/24 13:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72703	02/11/24 20:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72981	02/11/24 20:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			72963	02/11/24 01:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	72465	02/06/24 10:41	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72794	02/11/24 01:01	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72372	02/05/24 13:03	SMC	EET MID
Soluble	Analysis	300.0		1			72625	02/08/24 11:57	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: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington 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:

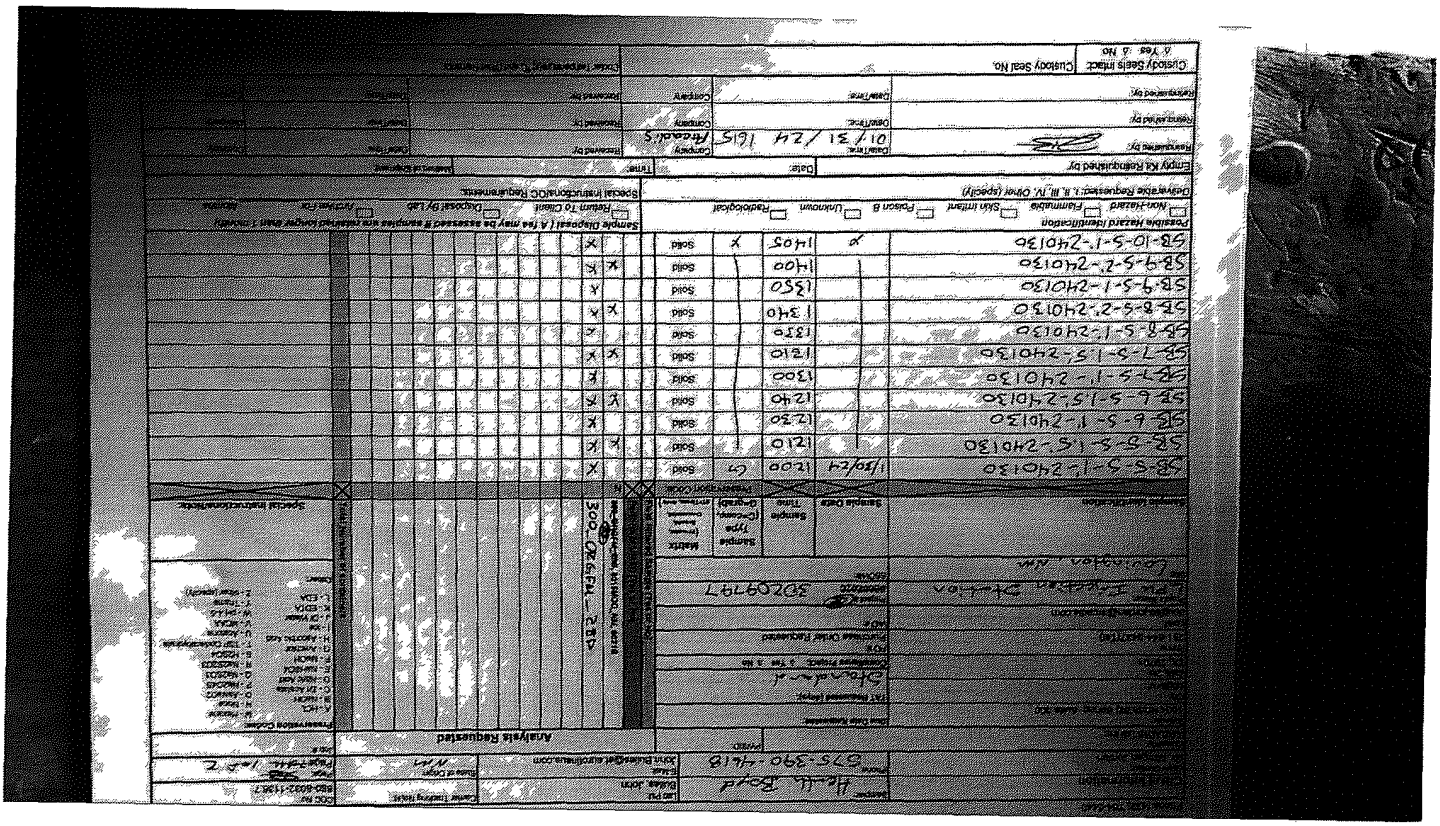
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38883-1
SDG: Lovington NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38883-1	SB-5-S-1'-240130	Solid	01/30/24 12:00	02/02/24 14:00
880-38883-2	SB-5-S-1.5'-240130	Solid	01/30/24 12:10	02/02/24 14:00
880-38883-3	SB-6-S-1'-240130	Solid	01/30/24 12:30	02/02/24 14:00
880-38883-4	SB-6-S-1.5'-240130	Solid	01/30/24 12:40	02/02/24 14:00
880-38883-5	SB-7-S-1'-240130	Solid	01/30/24 13:00	02/02/24 14:00
880-38883-6	SB-7-S-1.5'-240130	Solid	01/30/24 13:10	02/02/24 14:00
880-38883-7	SB-8-S-1'-240130	Solid	01/30/24 13:30	02/02/24 14:00
880-38883-8	SB-8-S-2'-240130	Solid	01/30/24 13:40	02/02/24 14:00
880-38883-9	SB-9-S-1'-240130	Solid	01/30/24 13:50	02/02/24 14:00
880-38883-10	SB-9-S-2'-240130	Solid	01/30/24 14:00	02/02/24 14:00
880-38883-11	SB-10-S-1'-240130	Solid	01/30/24 14:05	02/02/24 14:00
880-38883-12	SB-10-S-2'-240130	Solid	01/30/24 14:10	02/02/24 14:00
880-38883-13	SB-11-S-1'-240130	Solid	01/30/24 14:15	02/02/24 14:00
880-38883-14	SB-11-S-2'-240130	Solid	01/30/24 14:20	02/02/24 14:00
880-38883-15	SB-12-S-1'-240130	Solid	01/30/24 14:25	02/02/24 14:00
880-38883-16	SB-12-S-1.5'-240130	Solid	01/30/24 14:30	02/02/24 14:00




880-38883 Chain of Custody

38883

Loc: 880

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-38883-1
SDG Number: Lovington NM

Login Number: 38883
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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 2/14/2024 3:23:31 PM

JOB DESCRIPTION

LPU Injection Station
Lovington, NM

JOB NUMBER

880-38873-1

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
2/14/2024 3:23:31 PM

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

Table of Contents

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, 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.
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: LPU Injection Station

Job ID: 880-38873-1

Job ID: 880-38873-1 Eurofins Midland

Job Narrative
880-38873-1

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

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

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

Receipt
The samples were received on 2/5/2024 8:42 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SB-13-S-1'-240201 (880-38873-1), SB-13-S-1.5'-240201 (880-38873-2), SB-14-S-1'-240201 (880-38873-3) and SB-14-S-1.5'-240201 (880-38873-4).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72383 and analytical batch 880-72441 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SB-13-S-1'-240201 (880-38873-1) and SB-14-S-1'-240201 (880-38873-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-72383 and analytical batch 880-72441 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: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Client Sample ID: SB-13-S-1'-240201

Lab Sample ID: 880-38873-1
Matrix: Solid
Date Collected: 02/01/24 08:50
Date Received: 02/05/24 08:42

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		02/12/24 16:23	02/14/24 02:05	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		02/12/24 16:23	02/14/24 02:05	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		02/12/24 16:23	02/14/24 02:05	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		02/12/24 16:23	02/14/24 02:05	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		02/12/24 16:23	02/14/24 02:05	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		02/12/24 16:23	02/14/24 02:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/12/24 16:23*	*02/14/24 02:05*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/12/24 16:23*	*02/14/24 02:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			02/14/24 02:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.3**		50.1	15.0	mg/Kg			02/06/24 20:40	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	**32.9**	**J**	50.1	15.0	mg/Kg		02/05/24 13:43	02/06/24 20:40	1
Diesel Range Organics (Over C10-C28)	**36.4**	**J B**	50.1	15.0	mg/Kg		02/05/24 13:43	02/06/24 20:40	1
OII Range Organics (Over C28-C36)	<15.0	U	50.1	15.0	mg/Kg		02/05/24 13:43	02/06/24 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*02/05/24 13:43*	*02/06/24 20:40*	*1*
o-Terphenyl	*116*		*70 - 130*	*02/05/24 13:43*	*02/06/24 20:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		5.04	0.398	mg/Kg			02/05/24 20:03	1

Client Sample ID: SB-13-S-1.5'-240201

Lab Sample ID: 880-38873-2
Matrix: Solid
Date Collected: 02/01/24 09:00
Date Received: 02/05/24 08:42

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		02/12/24 16:23	02/14/24 02:25	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		02/12/24 16:23	02/14/24 02:25	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		02/12/24 16:23	02/14/24 02:25	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		02/12/24 16:23	02/14/24 02:25	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		02/12/24 16:23	02/14/24 02:25	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		02/12/24 16:23	02/14/24 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/12/24 16:23*	*02/14/24 02:25*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/12/24 16:23*	*02/14/24 02:25*	*1*

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Client Sample ID: SB-13-S-1.5'-240201

Lab Sample ID: 880-38873-2
Matrix: Solid
Date Collected: 02/01/24 09:00
Date Received: 02/05/24 08:42

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			02/14/24 02:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.8**		50.4	15.1	mg/Kg			02/06/24 21:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**33.9**	**J**	50.4	15.1	mg/Kg		02/05/24 13:43	02/06/24 21:02	1
Diesel Range Organics (Over C10-C28)	**31.9**	**J B**	50.4	15.1	mg/Kg		02/05/24 13:43	02/06/24 21:02	1
OII Range Organics (Over C28-C36)	<15.1	U	50.4	15.1	mg/Kg		02/05/24 13:43	02/06/24 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*02/05/24 13:43*	*02/06/24 21:02*	*1*
o-Terphenyl	*109*		*70 - 130*	*02/05/24 13:43*	*02/06/24 21:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**362**		4.99	0.394	mg/Kg			02/05/24 20:08	1

Client Sample ID: SB-14-S-1'-240201

Lab Sample ID: 880-38873-3
Matrix: Solid
Date Collected: 02/01/24 09:20
Date Received: 02/05/24 08:42

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		02/12/24 16:23	02/14/24 02:46	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		02/12/24 16:23	02/14/24 02:46	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		02/12/24 16:23	02/14/24 02:46	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		02/12/24 16:23	02/14/24 02:46	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		02/12/24 16:23	02/14/24 02:46	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		02/12/24 16:23	02/14/24 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/12/24 16:23*	*02/14/24 02:46*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/12/24 16:23*	*02/14/24 02:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			02/14/24 02:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**46.8**	**J**	50.2	15.0	mg/Kg			02/06/24 21:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**24.2**	**J**	50.2	15.0	mg/Kg		02/05/24 13:43	02/06/24 21:22	1
Diesel Range Organics (Over C10-C28)	**22.6**	**J B**	50.2	15.0	mg/Kg		02/05/24 13:43	02/06/24 21:22	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Client Sample ID: SB-14-S-1'-240201

Lab Sample ID: 880-38873-3
Matrix: Solid
Date Collected: 02/01/24 09:20
Date Received: 02/05/24 08:42

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<15.0	U	50.2	15.0	mg/Kg		02/05/24 13:43	02/06/24 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*145*	*S1+*	*70 - 130*	*02/05/24 13:43*	*02/06/24 21:22*	*1*
o-Terphenyl	*127*		*70 - 130*	*02/05/24 13:43*	*02/06/24 21:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**639**		4.97	0.393	mg/Kg			02/05/24 20:13	1

Client Sample ID: SB-14-S-1.5'-240201

Lab Sample ID: 880-38873-4
Matrix: Solid
Date Collected: 02/01/24 09:30
Date Received: 02/05/24 08:42

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		02/12/24 16:23	02/14/24 03:06	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		02/12/24 16:23	02/14/24 03:06	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		02/12/24 16:23	02/14/24 03:06	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		02/12/24 16:23	02/14/24 03:06	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		02/12/24 16:23	02/14/24 03:06	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		02/12/24 16:23	02/14/24 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/12/24 16:23*	*02/14/24 03:06*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/12/24 16:23*	*02/14/24 03:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			02/14/24 03:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**49.9**		49.9	15.0	mg/Kg			02/06/24 21:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**28.3**	**J**	49.9	15.0	mg/Kg		02/05/24 13:43	02/06/24 21:43	1
Diesel Range Organics (Over C10-C28)	**21.6**	**J B**	49.9	15.0	mg/Kg		02/05/24 13:43	02/06/24 21:43	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/05/24 13:43	02/06/24 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*02/05/24 13:43*	*02/06/24 21:43*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/05/24 13:43*	*02/06/24 21:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**745**		4.97	0.393	mg/Kg			02/05/24 20:28	1

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, 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)
880-38873-1	SB-13-S-1'-240201	110	96
880-38873-2	SB-13-S-1.5'-240201	110	93
880-38873-3	SB-14-S-1'-240201	113	95
880-38873-4	SB-14-S-1.5'-240201	108	97
LCS 880-72955/1-A	Lab Control Sample	109	103
LCSD 880-72955/2-A	Lab Control Sample Dup	101	97
MB 880-72955/5-A	Method Blank	79	98

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)
880-38873-1	SB-13-S-1'-240201	135 S1+	116
880-38873-2	SB-13-S-1.5'-240201	127	109
880-38873-3	SB-14-S-1'-240201	145 S1+	127
880-38873-4	SB-14-S-1.5'-240201	124	105
LCS 880-72383/2-A	Lab Control Sample	89	87
LCSD 880-72383/3-A	Lab Control Sample Dup	94	89
MB 880-72383/1-A	Method Blank	169 S1+	146 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72955/5-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72955

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/12/24 16:23	02/13/24 19:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*02/12/24 16:23*	*02/13/24 19:14*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/12/24 16:23*	*02/13/24 19:14*	*1*

Lab Sample ID: LCS 880-72955/1-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72955

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1125		mg/Kg		112	70 - 130		
Toluene			0.100	0.1232		mg/Kg		123	70 - 130		
Ethylbenzene			0.100	0.1135		mg/Kg		113	70 - 130		
m-Xylene & p-Xylene			0.200	0.2276		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1140		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-72955/2-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72955

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08835		mg/Kg		88	70 - 130	24	35
Toluene			0.100	0.1024		mg/Kg		102	70 - 130	18	35
Ethylbenzene			0.100	0.09665		mg/Kg		97	70 - 130	16	35
m-Xylene & p-Xylene			0.200	0.1953		mg/Kg		98	70 - 130	15	35
o-Xylene			0.100	0.09790		mg/Kg		98	70 - 130	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

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

Lab Sample ID: MB 880-72383/1-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72383

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		02/05/24 13:43	02/06/24 07:13	1
Diesel Range Organics (Over C10-C28)	19.29	J	50.0	15.0	mg/Kg		02/05/24 13:43	02/06/24 07:13	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/05/24 13:43	02/06/24 07:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*169*	*S1+*	*70 - 130*	*02/05/24 13:43*	*02/06/24 07:13*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*02/05/24 13:43*	*02/06/24 07:13*	*1*

Lab Sample ID: LCS 880-72383/2-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72383

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	885.4		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: LCSD 880-72383/3-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72383

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	998.8		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	877.0		mg/Kg		88	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72356/1-A
Matrix: Solid
Analysis Batch: 72369

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			02/05/24 19:29	1

QC Sample Results

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-72356/2-A
Matrix: Solid
Analysis Batch: 72369

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	237.5		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-72356/3-A
Matrix: Solid
Analysis Batch: 72369

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	239.6		mg/Kg		96	90 - 110	1	20

QC Association Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

GC VOA

Prep Batch: 72955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Total/NA	Solid	5030B	
880-38873-2	SB-13-S-1.5'-240201	Total/NA	Solid	5030B	
880-38873-3	SB-14-S-1'-240201	Total/NA	Solid	5030B	
880-38873-4	SB-14-S-1.5'-240201	Total/NA	Solid	5030B	
MB 880-72955/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-72955/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-72955/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 73077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Total/NA	Solid	8021B	72955
880-38873-2	SB-13-S-1.5'-240201	Total/NA	Solid	8021B	72955
880-38873-3	SB-14-S-1'-240201	Total/NA	Solid	8021B	72955
880-38873-4	SB-14-S-1.5'-240201	Total/NA	Solid	8021B	72955
MB 880-72955/5-A	Method Blank	Total/NA	Solid	8021B	72955
LCS 880-72955/1-A	Lab Control Sample	Total/NA	Solid	8021B	72955
LCSD 880-72955/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72955

Analysis Batch: 73155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Total/NA	Solid	Total BTEX	
880-38873-2	SB-13-S-1.5'-240201	Total/NA	Solid	Total BTEX	
880-38873-3	SB-14-S-1'-240201	Total/NA	Solid	Total BTEX	
880-38873-4	SB-14-S-1.5'-240201	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Total/NA	Solid	8015NM Prep	
880-38873-2	SB-13-S-1.5'-240201	Total/NA	Solid	8015NM Prep	
880-38873-3	SB-14-S-1'-240201	Total/NA	Solid	8015NM Prep	
880-38873-4	SB-14-S-1.5'-240201	Total/NA	Solid	8015NM Prep	
MB 880-72383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Total/NA	Solid	8015B NM	72383
880-38873-2	SB-13-S-1.5'-240201	Total/NA	Solid	8015B NM	72383
880-38873-3	SB-14-S-1'-240201	Total/NA	Solid	8015B NM	72383
880-38873-4	SB-14-S-1.5'-240201	Total/NA	Solid	8015B NM	72383
MB 880-72383/1-A	Method Blank	Total/NA	Solid	8015B NM	72383
LCS 880-72383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72383
LCSD 880-72383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72383

Analysis Batch: 72575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Total/NA	Solid	8015 NM	
880-38873-2	SB-13-S-1.5'-240201	Total/NA	Solid	8015 NM	

QC Association Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

GC Semi VOA (Continued)

Analysis Batch: 72575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-3	SB-14-S-1'-240201	Total/NA	Solid	8015 NM	
880-38873-4	SB-14-S-1.5'-240201	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Soluble	Solid	DI Leach	
880-38873-2	SB-13-S-1.5'-240201	Soluble	Solid	DI Leach	
880-38873-3	SB-14-S-1'-240201	Soluble	Solid	DI Leach	
880-38873-4	SB-14-S-1.5'-240201	Soluble	Solid	DI Leach	
MB 880-72356/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72356/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72356/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 72369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38873-1	SB-13-S-1'-240201	Soluble	Solid	300.0	72356
880-38873-2	SB-13-S-1.5'-240201	Soluble	Solid	300.0	72356
880-38873-3	SB-14-S-1'-240201	Soluble	Solid	300.0	72356
880-38873-4	SB-14-S-1.5'-240201	Soluble	Solid	300.0	72356
MB 880-72356/1-A	Method Blank	Soluble	Solid	300.0	72356
LCS 880-72356/2-A	Lab Control Sample	Soluble	Solid	300.0	72356
LCSD 880-72356/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72356

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Client Sample ID: SB-13-S-1'-240201

Lab Sample ID: 880-38873-1
Matrix: Solid
Date Collected: 02/01/24 08:50
Date Received: 02/05/24 08:42

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 02:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73155	02/14/24 02:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			72575	02/06/24 20:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 20:40	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72356	02/05/24 10:33	SMC	EET MID
Soluble	Analysis	300.0		1			72369	02/05/24 20:03	CH	EET MID

Client Sample ID: SB-13-S-1.5'-240201

Lab Sample ID: 880-38873-2
Matrix: Solid
Date Collected: 02/01/24 09:00
Date Received: 02/05/24 08:42

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 02:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73155	02/14/24 02:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			72575	02/06/24 21:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 21:02	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72356	02/05/24 10:33	SMC	EET MID
Soluble	Analysis	300.0		1			72369	02/05/24 20:08	CH	EET MID

Client Sample ID: SB-14-S-1'-240201

Lab Sample ID: 880-38873-3
Matrix: Solid
Date Collected: 02/01/24 09:20
Date Received: 02/05/24 08:42

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 02:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73155	02/14/24 02:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			72575	02/06/24 21:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 21:22	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72356	02/05/24 10:33	SMC	EET MID
Soluble	Analysis	300.0		1			72369	02/05/24 20:13	CH	EET MID

Client Sample ID: SB-14-S-1.5'-240201

Lab Sample ID: 880-38873-4
Matrix: Solid
Date Collected: 02/01/24 09:30
Date Received: 02/05/24 08:42

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 03:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73155	02/14/24 03:06	SM	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Client Sample ID: SB-14-S-1.5'-240201

Date Collected: 02/01/24 09:30
Date Received: 02/05/24 08:42

Lab Sample ID: 880-38873-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			72575	02/06/24 21:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 21:43	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72356	02/05/24 10:33	SMC	EET MID
Soluble	Analysis	300.0		1			72369	02/05/24 20:28	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: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: ARCADIS US Inc
Project/Site: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, 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: LPU Injection Station

Job ID: 880-38873-1
SDG: Lovington, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38873-1	SB-13-S-1'-240201	Solid	02/01/24 08:50	02/05/24 08:42
880-38873-2	SB-13-S-1.5'-240201	Solid	02/01/24 09:00	02/05/24 08:42
880-38873-3	SB-14-S-1'-240201	Solid	02/01/24 09:20	02/05/24 08:42
880-38873-4	SB-14-S-1.5'-240201	Solid	02/01/24 09:30	02/05/24 08:42

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

Chain of Custody Record

eurofins Environment Testing

873

Client Information	Sampler: Heath Boyd	Lab PM: Builes John	Carrier Tracking No(s)	COC No: 880-8032-1136 9
Client Contact: Mr Morgan Jordan	Phone: 575-390-4618	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~9 of 14~~ 1 of 1
Company: ARCADIS US Inc	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): Standard			
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: LPH Injection Station	Project #: ~~88002020~~ 30209797			
Site: Lovington, NM	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 (GRO)	300_ORGFM_28D	Total Number of containers	Special Instructions/Note
	Preservation Code:						N			
SB-13-S-1'-240201	2-1-24	850	G	Solid			X	X		
SB-13-S-1.5'-240201	"	900	"	Solid			X	X		
SB-14-S-1'-240201	"	920	"	Solid			X	X		
SB-14-S-1.5'-240201	X	930	X	Solid			X	X		
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

880-38873 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	Company	Received by	Date/Time	Company
Luis Esparza	2/2/24 1308		Daphne Gonzales		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/2/24 842	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time: 2/5/24	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 1 3 1.5

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-38873-1
SDG Number: Lovington, NM

Login Number: 38873
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis U.S., Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 4/24/2024 12:13:13 PM

JOB DESCRIPTION

LPU Injection St.
Lovington, NM

JOB NUMBER

880-42430-1

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
4/24/2024 12:13:13 PM

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

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Laboratory Job ID: 880-42430-1
SDG: Lovington, NM

Table of Contents

Definitions/Glossary

Client: Arcadis U.S., Inc. Job ID: 880-42430-1
Project/Site: LPU Injection St. SDG: Lovington, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, 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 U.S., Inc.
Project: LPU Injection St.

Job ID: 880-42430-1

Job ID: 880-42430-1 Eurofins Midland

Job Narrative
880-42430-1

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

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

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

Receipt
The samples were received on 4/18/2024 11:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SB-15-0-1' (880-42430-1), SB-15-2'-3' (880-42430-2), SB-16-0-1' (880-42430-3), SB-16-2'-3' (880-42430-4), SB-17-0-1' (880-42430-5), SB-17-2'-3' (880-42430-6), SB-18-0-1' (880-42430-7), SB-18-2'-3' (880-42430-8), SB-19-0-1' (880-42430-9) and SB-19-2'-3' (880-42430-10).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-78769 and analytical batch 880-79001 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-78769 and analytical batch 880-79001 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 U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-15-0-1'

Lab Sample ID: 880-42430-1
Matrix: Solid
Date Collected: 04/16/24 08:50
Date Received: 04/18/24 11:50

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46.0**		5.03	0.397	mg/Kg			04/20/24 15:18	1

Client Sample ID: SB-15-2'-3'

Lab Sample ID: 880-42430-2
Matrix: Solid
Date Collected: 04/16/24 09:00
Date Received: 04/18/24 11:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000592**	**J**	0.00201	0.000387	mg/Kg		04/18/24 15:58	04/21/24 00:35	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		04/18/24 15:58	04/21/24 00:35	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		04/18/24 15:58	04/21/24 00:35	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		04/18/24 15:58	04/21/24 00:35	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		04/18/24 15:58	04/21/24 00:35	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		04/18/24 15:58	04/21/24 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*04/18/24 15:58*	*04/21/24 00:35*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/18/24 15:58*	*04/21/24 00:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			04/21/24 00:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**158**		49.7	14.9	mg/Kg			04/23/24 18:17	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**	49.7	14.9	mg/Kg		04/19/24 13:48	04/23/24 18:17	1
Diesel Range Organics (Over C10-C28)	**127**	**B**	49.7	14.9	mg/Kg		04/19/24 13:48	04/23/24 18:17	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.7	14.9	mg/Kg		04/19/24 13:48	04/23/24 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*130*		*70 - 130*	*04/19/24 13:48*	*04/23/24 18:17*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/19/24 13:48*	*04/23/24 18:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**67.1**		4.98	0.393	mg/Kg			04/20/24 15:33	1

Client Sample ID: SB-16-0-1'

Lab Sample ID: 880-42430-3
Matrix: Solid
Date Collected: 04/16/24 09:20
Date Received: 04/18/24 11:50

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.8**		5.04	0.398	mg/Kg			04/20/24 15:38	1

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-16-2'-3'

Lab Sample ID: 880-42430-4
Matrix: Solid
Date Collected: 04/16/24 09:40
Date Received: 04/18/24 11:50

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		04/18/24 15:58	04/21/24 00:55	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/18/24 15:58	04/21/24 00:55	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/18/24 15:58	04/21/24 00:55	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/18/24 15:58	04/21/24 00:55	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/18/24 15:58	04/21/24 00:55	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/18/24 15:58	04/21/24 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/18/24 15:58*	*04/21/24 00:55*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/18/24 15:58*	*04/21/24 00:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			04/21/24 00:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**27.7**	**J**	49.8	14.9	mg/Kg			04/23/24 16:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**27.7**	**J**	49.8	14.9	mg/Kg		04/19/24 13:48	04/23/24 16:45	1
Diesel Range Organics (Over C10-C28)	<14.9	U	49.8	14.9	mg/Kg		04/19/24 13:48	04/23/24 16:45	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		04/19/24 13:48	04/23/24 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*04/19/24 13:48*	*04/23/24 16:45*	*1*
o-Terphenyl	*96*		*70 - 130*	*04/19/24 13:48*	*04/23/24 16:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.8**		4.98	0.393	mg/Kg			04/20/24 15:42	1

Client Sample ID: SB-17-0-1'

Lab Sample ID: 880-42430-5
Matrix: Solid
Date Collected: 04/16/24 09:55
Date Received: 04/18/24 11:50

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.48**		5.03	0.397	mg/Kg			04/20/24 15:47	1

Client Sample ID: SB-17-2'-3'

Lab Sample ID: 880-42430-6
Matrix: Solid
Date Collected: 04/16/24 10:05
Date Received: 04/18/24 11:50

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		04/18/24 15:58	04/21/24 01:16	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		04/18/24 15:58	04/21/24 01:16	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		04/18/24 15:58	04/21/24 01:16	1

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-17-2'-3'

Lab Sample ID: 880-42430-6
Matrix: Solid
Date Collected: 04/16/24 10:05
Date Received: 04/18/24 11:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		04/18/24 15:58	04/21/24 01:16	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/18/24 15:58	04/21/24 01:16	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		04/18/24 15:58	04/21/24 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/18/24 15:58*	*04/21/24 01:16*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*04/18/24 15:58*	*04/21/24 01:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00396	0.00100	mg/Kg			04/21/24 01:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**18.5**	**J**	49.8	14.9	mg/Kg			04/23/24 17:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**18.5**	**J**	49.8	14.9	mg/Kg		04/19/24 13:48	04/23/24 17:13	1
Diesel Range Organics (Over C10-C28)	<14.9	U	49.8	14.9	mg/Kg		04/19/24 13:48	04/23/24 17:13	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		04/19/24 13:48	04/23/24 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*04/19/24 13:48*	*04/23/24 17:13*	*1*
o-Terphenyl	*77*		*70 - 130*	*04/19/24 13:48*	*04/23/24 17:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.1**		5.02	0.397	mg/Kg			04/20/24 16:02	1

Client Sample ID: SB-18-0-1'

Lab Sample ID: 880-42430-7
Matrix: Solid
Date Collected: 04/16/24 10:50
Date Received: 04/18/24 11:50

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1550**		25.1	1.98	mg/Kg			04/20/24 16:07	5

Client Sample ID: SB-18-2'-3'

Lab Sample ID: 880-42430-8
Matrix: Solid
Date Collected: 04/16/24 11:10
Date Received: 04/18/24 11:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000382	U	0.00198	0.000382	mg/Kg		04/18/24 15:58	04/21/24 01:36	1
Toluene	<0.000452	U	0.00198	0.000452	mg/Kg		04/18/24 15:58	04/21/24 01:36	1
Ethylbenzene	<0.000561	U	0.00198	0.000561	mg/Kg		04/18/24 15:58	04/21/24 01:36	1
m-Xylene & p-Xylene	<0.00100	U	0.00397	0.00100	mg/Kg		04/18/24 15:58	04/21/24 01:36	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/18/24 15:58	04/21/24 01:36	1
Xylenes, Total	<0.00100	U	0.00397	0.00100	mg/Kg		04/18/24 15:58	04/21/24 01:36	1

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-18-2'-3'

Lab Sample ID: 880-42430-8
Matrix: Solid
Date Collected: 04/16/24 11:10
Date Received: 04/18/24 11:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*04/18/24 15:58*	*04/21/24 01:36*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/18/24 15:58*	*04/21/24 01:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00397	0.00100	mg/Kg			04/21/24 01:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**41.7**	**J**	50.0	15.0	mg/Kg			04/23/24 17:34	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	**41.7**	**J**	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 17:34	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 17:34	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*106*		*70 - 130*	*04/19/24 13:48*	*04/23/24 17:34*	*1*
o-Terphenyl	*91*		*70 - 130*	*04/19/24 13:48*	*04/23/24 17:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**720**		4.95	0.391	mg/Kg			04/20/24 16:12	1

Client Sample ID: SB-19-0-1'

Lab Sample ID: 880-42430-9
Matrix: Solid
Date Collected: 04/16/24 13:10
Date Received: 04/18/24 11:50

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**606**		4.98	0.393	mg/Kg			04/20/24 16:16	1

Client Sample ID: SB-19-2'-3'

Lab Sample ID: 880-42430-10
Matrix: Solid
Date Collected: 04/16/24 13:30
Date Received: 04/18/24 11:50

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		04/18/24 15:58	04/21/24 01:57	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		04/18/24 15:58	04/21/24 01:57	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/18/24 15:58	04/21/24 01:57	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/18/24 15:58	04/21/24 01:57	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/18/24 15:58	04/21/24 01:57	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/18/24 15:58	04/21/24 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/18/24 15:58*	*04/21/24 01:57*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*04/18/24 15:58*	*04/21/24 01:57*	*1*

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-19-2'-3'

Date Collected: 04/16/24 13:30
Date Received: 04/18/24 11:50

Lab Sample ID: 880-42430-10

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			04/21/24 01:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**38.9**	**J**	50.0	15.0	mg/Kg			04/23/24 17:56	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	**38.9**	**J**	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 17:56	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 17:56	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*04/19/24 13:48*	*04/23/24 17:56*	*1*
o-Terphenyl	*104*		*70 - 130*	*04/19/24 13:48*	*04/23/24 17:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**594**		5.00	0.395	mg/Kg			04/20/24 16:21	1

Surrogate Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, 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)								
880-42430-2	SB-15-2'-3'	114	92								
880-42430-4	SB-16-2'-3'	116	92								
880-42430-6	SB-17-2'-3'	116	91								
880-42430-8	SB-18-2'-3'	115	92								
880-42430-10	SB-19-2'-3'	116	94								
LCS 880-78677/1-A	Lab Control Sample	111	101								
LCSD 880-78677/2-A	Lab Control Sample Dup	111	103								
MB 880-78677/5-A	Method Blank	113	89								

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)								
880-42430-2	SB-15-2'-3'	130	111								
880-42430-4	SB-16-2'-3'	108	96								
880-42430-6	SB-17-2'-3'	90	77								
880-42430-8	SB-18-2'-3'	106	91								
880-42430-10	SB-19-2'-3'	122	104								
LCS 880-78769/2-A	Lab Control Sample	106	109								
LCSD 880-78769/3-A	Lab Control Sample Dup	83	87								
MB 880-78769/1-A	Method Blank	131 S1+	118								

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-78677/5-A
Matrix: Solid
Analysis Batch: 78856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 78677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/18/24 15:58	04/20/24 19:37	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/18/24 15:58	04/20/24 19:37	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/18/24 15:58	04/20/24 19:37	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/18/24 15:58	04/20/24 19:37	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/18/24 15:58	04/20/24 19:37	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/18/24 15:58	04/20/24 19:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*04/18/24 15:58*	*04/20/24 19:37*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*04/18/24 15:58*	*04/20/24 19:37*	*1*

Lab Sample ID: LCS 880-78677/1-A
Matrix: Solid
Analysis Batch: 78856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 78677

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1121		mg/Kg		112	70 - 130		
Toluene			0.100	0.1055		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1046		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2113		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1059		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-78677/2-A
Matrix: Solid
Analysis Batch: 78856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 78677

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1161		mg/Kg		116	70 - 130	3	35
Toluene			0.100	0.1082		mg/Kg		108	70 - 130	2	35
Ethylbenzene			0.100	0.1066		mg/Kg		107	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2138		mg/Kg		107	70 - 130	1	35
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

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

Lab Sample ID: MB 880-78769/1-A
Matrix: Solid
Analysis Batch: 79001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 78769

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		04/19/24 13:48	04/23/24 07:53	1
Diesel Range Organics (Over C10-C28)	16.74	J	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 07:53	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		04/19/24 13:48	04/23/24 07:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*04/19/24 13:48*	*04/23/24 07:53*	*1*
o-Terphenyl	*118*		*70 - 130*	*04/19/24 13:48*	*04/23/24 07:53*	*1*

Lab Sample ID: LCS 880-78769/2-A
Matrix: Solid
Analysis Batch: 79001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 78769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1069		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	975.3		mg/Kg		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*109*		*70 - 130*

Lab Sample ID: LCSD 880-78769/3-A
Matrix: Solid
Analysis Batch: 79001

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 78769

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	963.7		mg/Kg		96	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	831.8		mg/Kg		83	70 - 130	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-78714/1-A
Matrix: Solid
Analysis Batch: 78777

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			04/20/24 15:04	1

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-78714/2-A
Matrix: Solid
Analysis Batch: 78777

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.4		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-78714/3-A
Matrix: Solid
Analysis Batch: 78777

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	254.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-42430-1 MS
Matrix: Solid
Analysis Batch: 78777

Client Sample ID: SB-15-0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	46.0		252	309.9		mg/Kg		105	90 - 110		

Lab Sample ID: 880-42430-1 MSD
Matrix: Solid
Analysis Batch: 78777

Client Sample ID: SB-15-0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	46.0		252	310.6		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

GC VOA

Prep Batch: 78677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-2	SB-15-2'-3'	Total/NA	Solid	5030B	
880-42430-4	SB-16-2'-3'	Total/NA	Solid	5030B	
880-42430-6	SB-17-2'-3'	Total/NA	Solid	5030B	
880-42430-8	SB-18-2'-3'	Total/NA	Solid	5030B	
880-42430-10	SB-19-2'-3'	Total/NA	Solid	5030B	
MB 880-78677/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-78677/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-78677/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 78856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-2	SB-15-2'-3'	Total/NA	Solid	8021B	78677
880-42430-4	SB-16-2'-3'	Total/NA	Solid	8021B	78677
880-42430-6	SB-17-2'-3'	Total/NA	Solid	8021B	78677
880-42430-8	SB-18-2'-3'	Total/NA	Solid	8021B	78677
880-42430-10	SB-19-2'-3'	Total/NA	Solid	8021B	78677
MB 880-78677/5-A	Method Blank	Total/NA	Solid	8021B	78677
LCS 880-78677/1-A	Lab Control Sample	Total/NA	Solid	8021B	78677
LCSD 880-78677/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	78677

Analysis Batch: 78927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-2	SB-15-2'-3'	Total/NA	Solid	Total BTEX	
880-42430-4	SB-16-2'-3'	Total/NA	Solid	Total BTEX	
880-42430-6	SB-17-2'-3'	Total/NA	Solid	Total BTEX	
880-42430-8	SB-18-2'-3'	Total/NA	Solid	Total BTEX	
880-42430-10	SB-19-2'-3'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 78769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-2	SB-15-2'-3'	Total/NA	Solid	8015NM Prep	
880-42430-4	SB-16-2'-3'	Total/NA	Solid	8015NM Prep	
880-42430-6	SB-17-2'-3'	Total/NA	Solid	8015NM Prep	
880-42430-8	SB-18-2'-3'	Total/NA	Solid	8015NM Prep	
880-42430-10	SB-19-2'-3'	Total/NA	Solid	8015NM Prep	
MB 880-78769/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-78769/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-78769/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 79001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-2	SB-15-2'-3'	Total/NA	Solid	8015B NM	78769
880-42430-4	SB-16-2'-3'	Total/NA	Solid	8015B NM	78769
880-42430-6	SB-17-2'-3'	Total/NA	Solid	8015B NM	78769
880-42430-8	SB-18-2'-3'	Total/NA	Solid	8015B NM	78769
880-42430-10	SB-19-2'-3'	Total/NA	Solid	8015B NM	78769
MB 880-78769/1-A	Method Blank	Total/NA	Solid	8015B NM	78769
LCS 880-78769/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	78769
LCSD 880-78769/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	78769

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

GC Semi VOA

Analysis Batch: 79181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-2	SB-15-2'-3'	Total/NA	Solid	8015 NM	
880-42430-4	SB-16-2'-3'	Total/NA	Solid	8015 NM	
880-42430-6	SB-17-2'-3'	Total/NA	Solid	8015 NM	
880-42430-8	SB-18-2'-3'	Total/NA	Solid	8015 NM	
880-42430-10	SB-19-2'-3'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 78714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-1	SB-15-0-1'	Soluble	Solid	DI Leach	
880-42430-2	SB-15-2'-3'	Soluble	Solid	DI Leach	
880-42430-3	SB-16-0-1'	Soluble	Solid	DI Leach	
880-42430-4	SB-16-2'-3'	Soluble	Solid	DI Leach	
880-42430-5	SB-17-0-1'	Soluble	Solid	DI Leach	
880-42430-6	SB-17-2'-3'	Soluble	Solid	DI Leach	
880-42430-7	SB-18-0-1'	Soluble	Solid	DI Leach	
880-42430-8	SB-18-2'-3'	Soluble	Solid	DI Leach	
880-42430-9	SB-19-0-1'	Soluble	Solid	DI Leach	
880-42430-10	SB-19-2'-3'	Soluble	Solid	DI Leach	
MB 880-78714/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78714/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78714/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-42430-1 MS	SB-15-0-1'	Soluble	Solid	DI Leach	
880-42430-1 MSD	SB-15-0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 78777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42430-1	SB-15-0-1'	Soluble	Solid	300.0	78714
880-42430-2	SB-15-2'-3'	Soluble	Solid	300.0	78714
880-42430-3	SB-16-0-1'	Soluble	Solid	300.0	78714
880-42430-4	SB-16-2'-3'	Soluble	Solid	300.0	78714
880-42430-5	SB-17-0-1'	Soluble	Solid	300.0	78714
880-42430-6	SB-17-2'-3'	Soluble	Solid	300.0	78714
880-42430-7	SB-18-0-1'	Soluble	Solid	300.0	78714
880-42430-8	SB-18-2'-3'	Soluble	Solid	300.0	78714
880-42430-9	SB-19-0-1'	Soluble	Solid	300.0	78714
880-42430-10	SB-19-2'-3'	Soluble	Solid	300.0	78714
MB 880-78714/1-A	Method Blank	Soluble	Solid	300.0	78714
LCS 880-78714/2-A	Lab Control Sample	Soluble	Solid	300.0	78714
LCSD 880-78714/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78714
880-42430-1 MS	SB-15-0-1'	Soluble	Solid	300.0	78714
880-42430-1 MSD	SB-15-0-1'	Soluble	Solid	300.0	78714

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-15-0-1'

Lab Sample ID: 880-42430-1
Matrix: Solid
Date Collected: 04/16/24 08:50
Date Received: 04/18/24 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 15:18	SMC	EET MID

Client Sample ID: SB-15-2'-3'

Lab Sample ID: 880-42430-2
Matrix: Solid
Date Collected: 04/16/24 09:00
Date Received: 04/18/24 11:50

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	78677	04/18/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	78856	04/21/24 00:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			78927	04/21/24 00:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			79181	04/23/24 18:17	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	78769	04/19/24 13:48	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	79001	04/23/24 18:17	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 15:33	SMC	EET MID

Client Sample ID: SB-16-0-1'

Lab Sample ID: 880-42430-3
Matrix: Solid
Date Collected: 04/16/24 09:20
Date Received: 04/18/24 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 15:38	SMC	EET MID

Client Sample ID: SB-16-2'-3'

Lab Sample ID: 880-42430-4
Matrix: Solid
Date Collected: 04/16/24 09:40
Date Received: 04/18/24 11:50

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	78677	04/18/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	78856	04/21/24 00:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			78927	04/21/24 00:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			79181	04/23/24 16:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	78769	04/19/24 13:48	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	79001	04/23/24 16:45	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 15:42	SMC	EET MID

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-17-0-1'

Lab Sample ID: 880-42430-5
Matrix: Solid
Date Collected: 04/16/24 09:55
Date Received: 04/18/24 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 15:47	SMC	EET MID

Client Sample ID: SB-17-2'-3'

Lab Sample ID: 880-42430-6
Matrix: Solid
Date Collected: 04/16/24 10:05
Date Received: 04/18/24 11:50

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	78677	04/18/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	78856	04/21/24 01:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			78927	04/21/24 01:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			79181	04/23/24 17:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	78769	04/19/24 13:48	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	79001	04/23/24 17:13	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 16:02	SMC	EET MID

Client Sample ID: SB-18-0-1'

Lab Sample ID: 880-42430-7
Matrix: Solid
Date Collected: 04/16/24 10:50
Date Received: 04/18/24 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	78777	04/20/24 16:07	SMC	EET MID

Client Sample ID: SB-18-2'-3'

Lab Sample ID: 880-42430-8
Matrix: Solid
Date Collected: 04/16/24 11:10
Date Received: 04/18/24 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.04 g	5 mL	78677	04/18/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	78856	04/21/24 01:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			78927	04/21/24 01:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			79181	04/23/24 17:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	78769	04/19/24 13:48	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	79001	04/23/24 17:34	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 16:12	SMC	EET MID

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Client Sample ID: SB-19-0-1'

Lab Sample ID: 880-42430-9
Matrix: Solid
Date Collected: 04/16/24 13:10
Date Received: 04/18/24 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 16:16	SMC	EET MID

Client Sample ID: SB-19-2'-3'

Lab Sample ID: 880-42430-10
Matrix: Solid
Date Collected: 04/16/24 13:30
Date Received: 04/18/24 11:50

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	78677	04/18/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	78856	04/21/24 01:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			78927	04/21/24 01:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			79181	04/23/24 17:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	78769	04/19/24 13:48	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	79001	04/23/24 17:56	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	78714	04/19/24 10:04	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78777	04/20/24 16:21	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, 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 U.S., Inc.
Project/Site: LPU Injection St.

Job ID: 880-42430-1
SDG: Lovington, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-42430-1	SB-15-0-1'	Solid	04/16/24 08:50	04/18/24 11:50
880-42430-2	SB-15-2'-3'	Solid	04/16/24 09:00	04/18/24 11:50
880-42430-3	SB-16-0-1'	Solid	04/16/24 09:20	04/18/24 11:50
880-42430-4	SB-16-2'-3'	Solid	04/16/24 09:40	04/18/24 11:50
880-42430-5	SB-17-0-1'	Solid	04/16/24 09:55	04/18/24 11:50
880-42430-6	SB-17-2'-3'	Solid	04/16/24 10:05	04/18/24 11:50
880-42430-7	SB-18-0-1'	Solid	04/16/24 10:50	04/18/24 11:50
880-42430-8	SB-18-2'-3'	Solid	04/16/24 11:10	04/18/24 11:50
880-42430-9	SB-19-0-1'	Solid	04/16/24 13:10	04/18/24 11:50
880-42430-10	SB-19-2'-3'	Solid	04/16/24 13:30	04/18/24 11:50

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Chain of Custody

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

880-42430 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:	1004 N Big Spring Suite 300	Address:	
City, State ZIP:	Midland, Tx 79701	City, State ZIP:	
Phone:	281-644-9437	Email:	

Work Order Comments

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

Project Name:	LPH Injection St.	Turn Around	
Project Number:	30209797	☑ Routine ☐ Rush	
Project Location:	Lovington, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-.1D
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.6
Total Containers:		Corrected Temperature:	1.5

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: 300_ORGFM_28D	8015MOD_NM	8021B
SB-15-0-1'	S	4/16/24	850		G	1	X		
SB-15-2-3'			900			1	X	X	X
SB-16-0-1'			920			1	X		
SB-16-2-3'			940			1	X	X	X
SB-17-0-1'			955			1	X		
SB-17-2-3'			1005			1	X	X	X
SB-18-4-5'			1050			1	X	X	X
SB-18-6-7'			1110			1	X		
SB-19-2-3'			1310			1	X		
SB-19-4-5'	X	X	1330		X	1	X	X	X

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245 1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Dallely Gonzales	4/16/24 4/17/24	2 Dallely Gonzalez		4/19/24 1150
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Arcadis U.S., Inc.

Job Number: 880-42430-1
SDG Number: Lovington, NM

Login Number: 42430
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

Appendix D

NMOCD Correspondence

From: Jordan, Morgan
Sent: Monday, May 6, 2024 10:53 AM
To: Krueger, Lauren
Subject: FW: [EXTERNAL] NMOCD Deadline Extension Request - City of Lovington Surface Owned Sites

Thank You,

Morgan Jordan | Project Manager | douglas.jordan@arcadis.com
Arcadis | Arcadis U.S., Inc.
98 San Jacinto Blvd, Suite 414 | Austin, TX | 78701 | USA
M. +1 281 644 9437

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Tuesday, April 30, 2024 3:41 PM
To: Foord, Scott <William.Foord@arcadis.com>
Cc: Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Request - City of Lovington Surface Owned Sites

Scott,

Based on the age of the releases, OCD will grant the following extension:

1. Inc. No. nPAC0617931420 – LPU 45 New due date is June 26, 2024 (60 days)
2. Inc. No. nPAC0617434320 – LPU Injection Station New due date is June 26, 2024 (60 days)
3. Inc. No. nPAC0711538356 – LPU 118 New due date is June 30, 2024 (60 days)
4. Inc. No. nPAC0706832335 – LSAU 24 New due date is June 26, 2024 (60 days)
5. Inc. No. nGRL0821729742 – LSAU 73 New due date is June 30, 2024 (60 days)
6. Inc. No. NGRL0916650301 – LSAU 82 New due date is June 30, 2024 (60 days)

Please include a copy of this email in the reports for each of the above referenced incident numbers.

Thank you,
Brittany Hall ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110

505.517.5333 | Brittany.Hall@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd/

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/ or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Foord, Scott <William.Foord@arcadis.com>
Sent: Monday, April 29, 2024 8:07 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Request - City of Lovington Surface Owned Sites

Brittany,

Please see comments below specific to the status for each of these sites. We are currently summarizing the analytical data and preparing remediation work plans for each site that has been recently assessed. Chevron Legal has been and is currently in communication with the City of Lovington (surface owner) and we anticipate access confirmation soon. This has been ongoing since at least late 2022 to early 2023. Please let me know if you need any additional information.

1. Inc. No. nPAC0617931420 – LPU 45 – Additional soil assessment activities completed in February 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
2. Inc. No. nPAC0617434320 – LPU Injection Station – Additional soil assessment activities completed in February and April 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
3. Inc. No. nPAC0711538356 – LPU 118 – The latest soil assessment was completed in March 2023 and a Site Characterization and Remediation Work Plan was submitted to NMOCD in December 2023. The 2023 Site Characterization and Remediation Work Plan was rejected and is currently being revised to address NMOCD comments for resubmittal to the Portal.
4. Inc. No. nPAC0706832335 – LSAU 24 - Additional soil assessment activities completed in February and April 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
5. Inc. No. nGRL0821729742 – LSAU 73 – The latest soil assessment was completed in March 2023 and a Site Characterization and Remediation Work Plan was submitted to NMOCD in December 2023. The 2023 Site Characterization and Remediation Work Plan was rejected and is currently being revised to address NMOCD comments for resubmittal to the Portal.
6. Inc. No. NGRL0916650301 – LSAU 82 – – The latest soil assessment was completed in March 2023 and a Site Characterization and Remediation Work Plan was submitted to NMOCD in December 2023. The 2023 Site Characterization and Remediation Work Plan was rejected and is currently being revised to address NMOCD comments for resubmittal to the Portal.

Thanks,
Scott
Direct 713-953-4853
Cell 281-725-7477

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Wednesday, April 24, 2024 11:14 AM

To: Foord, Scott <William.Foord@arcadis.com>
Cc: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Request - City of Lovington Surface Owned Sites

Mr. Foord,

After reviewing the previous rejections for the 6 below mentioned incident numbers, the most recent sampling dates in those reports are all over a year old (samples are dated 3/28 or 3/29/2023). These reports were also not submitted to the OCD until December 2023.

Could you please clarify if any additional work has been done at the sites, and how long obtaining access agreements with the City of Lovington has been ongoing?

Thank you,
Brittany Hall ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd/

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/ or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Wednesday, April 24, 2024 8:05 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] NMOCD Deadline Extension Request - City of Lovington Surface Owned Sites

FYI. All are under your review.

Nelson V.

From: Foord, Scott <William.Foord@arcadis.com>
Sent: Wednesday, April 3, 2024 3:41 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Brand, Chris M <Chrisbrand@chevron.com>; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: [EXTERNAL] NMOCD Deadline Extension Request - City of Lovington Surface Owned Sites

Nelson,

Chevron is currently working on finalizing access agreements with the City of Lovington for the following sites. The City owns the surface. We apologize for the delays, but this has been a back and forth process with all parties and is still ongoing. We would like to please request 90-day extensions for the 4/26/2024 through 4/30/2024 deadlines to complete remediation plans or closure reports for the following sites:

1. Inc. No. nPAC0617931420 – LPU 45
2. Inc. No. nPAC0617434320 – LPU Injection Station
3. Inc. No. nPAC0711538356 – LPU 118
4. Inc. No. nPAC0706832335 – LSAU 24
5. Inc. No. nGRL0821729742 – LSAU 73
6. Inc. No. NGRL0916650301 – LSAU 82

Please let me know if you need any additioanl information.

Thanks,
Scott

Scott Foord PG, RSO, CPM
AFS Group Service Leader
Arcadis U.S., Inc.
10205 Westheimer Road Suite 800 | Houston, Texas | 77042 | USA
T +1 713 953 4853
M +1 281 725 7477
www.arcadis.com

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Arcadis U.S., Inc.
10205 Westheimer Road, Suite 800
Houston
Texas 77042
Phone: 713 953 4800
Fax: 713 977 4620
www.arcadis.com

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 357172

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nPAC0617434320**
Incident Name	**NPAC0617434320 CHEVRON LOVINGTON PADDOCK UNIT @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Facility	**[fPAC0617433007] Chevron Lovington Paddock Unit**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CHEVRON LOVINGTON PADDOCK UNIT
Date Release Discovered	06/17/2006
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Injection | Produced Water | Released: 200 BBL | Recovered: 170 BBL | Lost: 30 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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

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

I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 06/25/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	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 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Zero feet, overlying, or within area
A wetland	Between 1000 (ft.) and ½ (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)	4590
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	298
GRO+DRO (EPA SW-846 Method 8015M)	298
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	07/25/2024
On what date will (or did) the final sampling or liner inspection occur	07/30/2024
On what date will (or was) the remediation complete(d)	08/25/2024
What is the estimated surface area (in square feet) that will be reclaimed	20000
What is the estimated volume (in cubic yards) that will be reclaimed	3000
What is the estimated surface area (in square feet) that will be remediated	20000
What is the estimated volume (in cubic yards) that will be remediated	3000
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
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: 06/25/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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

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CONDITIONS

Action 357172

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 357172
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation plan conditionally approved. Vertical delineation was not achieved at 6-7' bgs and must be addressed during remediation activities. All side wall and base samples must be at or below the most stringent closure criteria found in Table I.	6/26/2024
bhall	The site has multiple active facility IDs (fAPP2133553485 and fPAC0617433007). The closure report will need to include verification that this facility is still active. If the facility is inactive, the release area will need to be reclaimed at the time of remediation pursuant to 19.15.29.13 NMAC, including reseeding in the first favorable growing season. If the facility is inactive, an email should be sent to OCD to update the status of the facility IDs.	6/26/2024
bhall	Submit a complete and accurate closure and/or reclamation report through the OCD Permitting website by 9/27/2024. Failure to submit a complete report by 9/27/2024 may result in compliance and enforcement penalties pursuant to 19.15.5 NMAC.	6/26/2024