

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.	
☐ The impacted area has been secured to protect human health and the environment.	
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Patricia Zapata</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: _____	Date: _____

L48 Spill Volume Estimate Form

Facility Name & Number:	Asio Otis
Asset Area:	NDBW-N
Release Discovery Date & Time:	10-17-21 10:30am
Release Type:	Produced Water
Provide any known details about the event:	

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	See reference table below
Has it rained at least a half inch in the last 24 hours?	See reference table below

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	15.0	5.0	20.00	0.00%	22.250	0.000			
Rectangle B	66.0	8.0	0.20	11.00%	1.566	0.172			
Rectangle C	132.0	8.0	0.20	11.00%	3.133	0.345			
Rectangle D	204.0	8.0	0.20	11.00%	4.842	0.533			
Rectangle E					0.000	0.000			
Rectangle F					0.000	0.000			
Rectangle G					0.000	0.000			
Rectangle H					0.000	0.000			
Rectangle I					0.000	0.000			
Rectangle J					0.000	0.000			
Total Volume Release:						1.049			



COG (ConocoPhillips)

2024 Soil Deferral Request Report

Asio Otis CTB

Incident # NAPP2130843614

April 2024

2024 Soil Deferral Request Report

2024 Soil Deferral Request Report

Asio Otis CTB

Incident # NAPP2130843614

April 2024

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2024 Soil Deferral Request Report

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2024 Soil Deferral Request Report

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Soil Deferral Request Report (Report), on behalf of Concho Operating, LLC (COG – now ConocoPhillips), for the release site known as the Asio Otis CTB (Site). Details of the release are summarized in the Initial C-141 Form included as **Appendix A**.

2 Project Summary

The Site is located approximately 15.83 miles southwest of Malaga in Unit K, Section 18, Township 26 South, Range 27 East, Eddy County, New Mexico. A Site Location Map is included as **Figure 1**.

2.1 Incident # NAPP2130843614

According to the Initial C-141 Form, on October 18, 2021, a corroded bull plug was discovered at the Site. The leak resulted in the release of approximately 31 barrels (bbls) of produced water to ground surface at the Site. A vacuum truck recovered approximately 20 bbls of produced water. The impacted area measured approximately 155 feet by 125 feet. The Initial C-141 Form was submitted to the New Mexico Oil Conservation Division (NMOCD) on November 8, 2021, and assigned Incident ID number NAPP2130843614. The Initial C-141 Form is included as **Appendix A**.

3 Site Characterization

Soil assessment activities were performed at the Site during December 2021 by New Tech Global Environmental, LLC (NTGE) to determine the horizontal and vertical delineation of the release and deferral area. Samples were collected at 7 horizontal soil sample locations (H-1 through H-7) and two vertical soil sample locations (T-6 and T-7). The assessment activities associated analytical soil sample results and the initial proposed remediation/reclamation activities for the impacted areas are detailed in the 2021 Work Plan submitted previously by NTGE to the NMOCD (see **Appendix B**).

Upon further investigation, a water source was documented within half a mile of the release area. Per the Site Closure / Deferral Request Report for the COG Screech Owl Federal CTB (Incident ID NRM2009254898) dated November 2020, on September 20, 2018, a monitoring well (MW-1) was installed at the Alpha Gathering, Seg 3, Lat 6E Release Site located adjacent the COG Asio Otis CTB.

Groundwater was encountered at approximately ninety-three (93) feet below ground surface (bgs). On October 8, 2018, a groundwater sample was collected from the monitoring well and submitted to the laboratory for analysis of total dissolved solids (TDS) and benzene, toluene, ethylbenzene, and xylene (BTEX). The analytical results indicated concentrations of BTEX were less than the applicable Reporting Limit (RL) and less than the NMOCD regulatory guidelines. The analytical results indicated the TDS concentration of the groundwater sample was 485,000 milligrams per liter (mg/L) and exceeded the NMOCD and New Mexico Water Quality Control Commission (NMQWCC) standard of 10,000 mg/L for abatable groundwater.

2024 Soil Deferral Request Report

4 Closure Criteria for Soils Impacted by a Release

The NMOCD classifies the Site at the most stringent regulatory limits due to it being located within a high karst area. Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to a Site with depth to ground water less than 50 feet bgs:

Constituent	Limit (mg/Kg)
Chloride	600 mg/Kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/Kg
Benzene	10 mg/Kg

5 Prior Remediation Activities

Soil remediation activities were performed by Arcadis and eTech Environmental and Safety Solutions (eTech) from September 13 through September 26, 2022. Details from previous remediation activities are summarized in the 2022 Remediation Summary and Soil Deferral Request Report dated May 2023.

A deferral request was submitted to the NMOCD on May 15, 2023 and denied on October 6, 2023 for the following reasons:

- The area requested for deferral must be fully delineated. This would require vertical and horizontal delineation of the requested deferral area. Please collect samples in the area requested for deferral representing no more than 200 ft². Only sample points on pad that require a major facility deconstruction will be deferred. Continue to remove contaminants safely with alternative methods. If you believe a certain area will require deferral, please make sure that it has been fully delineated and specify the exact soil sample location. The OCD needs to see that every measure has been taken to remediate the release before a deferral can be granted. After all possible contaminated soil has been removed, a formal deferral request will need to be uploaded to the OCD payment port for review. The work will need to occur 90 days after report has been reviewed.

6 2024 Deferred Area Additional Delineation Assessment

As requested by NMOCD, Arcadis began additional soil assessment activities at 3 sample locations (H-N, H-E, and H-S) at the Site on December 7, 2023 to verify horizontal delineation of the pad area associated with the previous deferral request. Chloride concentrations in soil were determined during assessment activities to be below the applicable screening limits of 600 mg/kg for chloride at depths of 1 ft bgs within the pad and tank battery area located on the north portion of the pad. Five-point composite surface samples were also collected every 200 square feet bgs within the deferral area measuring 80 feet long by 12.5 feet wide at locations B-28 through B-32. These locations in conjunction with locations H-1 through H-7 and T-6 and T-7 from the NTGE assessment complete horizontal and vertical delineation for the proposed deferral area. The limits of the horizontal and vertical delineation assessment are presented on **Figure 2** and soil sample analytical results are

2024 Soil Deferral Request Report

summarized on **Table 1**. Photographic documentation of the deferral area is presented in the **2023 Soil Deferral Photographic Log**.

7 Summary

Analytical results associated with recent remediation and assessment activities conducted in 2022 and 2023 indicate that the horizontal and vertical extent of chloride, TPH, and BTEX impact in soil above NMAC Closure Criteria for a site with depth the groundwater less than 50 feet bgs due to being in a high karst area have been removed where possible and delineated both horizontally and vertically in areas that would require major facility deconstruction to remediate.

8 Deferral Request

Remediation activities were conducted in accordance with the NMOCD stipulations for accessible impacted areas at the Site. During excavation a resilient calcrete rock layer was encountered at shallow depths throughout the release area. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria in each of the submitted soil samples for the remediated areas. Impacted soil currently remains in-situ within the inaccessible area near the T-6 and T-7 sampling locations adjacent to and underneath the steel and poly flowlines north of the tank battery within the berm area on the pad.

Analytical results for soil samples collected indicate that chloride impact to soil is confined to surface and shallow soil only within the release area. Groundwater analytical data referenced in the site closure request for Incident #NRM2009254898 displays concentrations exceeding the NMOCD and New Mexico Water Quality Control Commission (NMQWCC) standard of 10,000 mg/L at a concentration of 485,000 mg/L and is therefore not abatable. The remaining in-situ impacted area is fully delineated and further excavation would pose a safety risk and require major facility deconstruction. Leaving the remaining impacted soil in-situ is not believed a risk to human health, the environment, or ground water.

As such, a deferral request for additional remediation of in-situ soil impacts measuring approximately 80 feet by 12.5 feet within the pad area north of the tank battery is requested at this time. This area will be addressed (assessed and excavated) during site restoration activities that will be conducted following abandonment of this facility at a future date in accordance with Sections 19.15.29.12 and 19.15.29.13 NMAC.

Based upon the findings presented in this report, no additional soil assessment activities are recommended at this time to further delineate the BTEX, TPH, and chloride impacts in soil at the Site. As such, Arcadis, on behalf of ConocoPhillips, respectfully requests deferral of Incident number NAPP2130843614 until the facility is abandoned and site reclamation activities are conducted.

Tables

Table 1
2021-2023 Soil Analytical Results
COG (ConocoPhillips)
Asio Otis CTB Incident # NAPP2130843614

Location ID	Depth (Feet)	Date Collected	Sample Name	Soil Status	BTEX					TPH				Gen Chem
					Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes, Total mg/kg	Total BTEX mg/kg	Gasoline Range Organics (GRO)-C6-C10 mg/kg	Diesel Range Organics (Over C10-C28) mg/kg	Oil Range Organics (Over C28-C36) mg/kg	Total TPH mg/kg	Chloride, Dissolved mg/kg
NMOCD					10	--	--	--	50	--	--	--	100	600
B-1	3.5	09/15/2022	B-4-3.5-091422	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	524
B-2	3	09/14/2022	B-2-3-091422	Removed	NA	NA	NA	NA	NA	NA	NA	NA	NA	604
B-2	4	09/21/2022	B-2-4'-092122	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	178
B-3	3	09/14/2022	B-3-3-091422	Removed	NA	NA	NA	NA	NA	NA	NA	NA	NA	972
B-4	5	09/14/2022	B-4-5-091422	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	407
B-5	5	09/14/2022	B-5-5-091422	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	572
B-6	3	09/14/2022	B-6-3-091422	Removed	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300
B-6	3.5	09/21/2022	B-6-3.5'-092122	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	104
B-7	4	09/21/2022	B-7-4'-092122	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	415
B-7	3	09/14/2022	B-7-3-091422	Removed	NA	NA	NA	NA	NA	NA	NA	NA	NA	729
B-8	4	09/21/2022	B-8-4'-092122	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	281
B-8	3	09/14/2022	B-8-3-091422	Removed	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300
B-9	6	09/15/2022	B-9-6-091522	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	181
B-10	6	09/15/2022	B-10-6-091522	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	140
B-11	6	09/15/2022	B-11-6-091522	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	140
B-12	6	09/15/2022	B-12-6'-091522	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	339
B-13	6	09/15/2022	B-13-6'-091522	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	408
B-14	6	09/15/2022	B-14-6'-091522	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.0	<50.0	<50.0	<50.0	78.2
B-15	6	09/16/2022	B-15-6'-091622	Removed	NA	NA	NA	NA	NA	NA	NA	NA	NA	779
B-15	7	09/21/2022	B-15-7'-092122	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.0	<50.0	<50.0	<50.0	234
B-16	6	09/16/2022	B-16-6'-091622	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	557
B-17	4	09/20/2022	B-17-4'-092022	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<49.8	<49.8	<49.8	<49.8	122
B-18	4	09/20/2022	B-18-4'-092022	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	61.7
B-19	6	09/21/2022	B-19-6'-092122	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	595
B-20	4	09/21/2022	B-20-4'-092122	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	361
B-21	5	09/21/2022	B-21-5'-092122	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	39.4
B-22	6	09/21/2022	B-22-6'-092122	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	274
B-23	5	09/21/2022	B-23-5'-092122	In-Situ	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	<50.0	<50.0	<50.0	<50.0	191
B-24	5	09/21/2022	B-24-5'-092122	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	244
B-25	6	09/21/2022	B-25-6'-092122	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<50.0	<50.0	<50.0	<50.0	30.4
B-26	6	09/22/2022	B-26-6'-092222	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<49.9	<49.9	<49.9	<49.9	204
B-27	6	09/22/2022	B-27-6'-092222	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	26.5
SW-1	2	09/14/2022	SW-1-2-091422	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	580
SW-2	2	09/14/2022	SW-2-2-091422	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	529
SW-3	2	09/14/2022	SW-3-2-091422	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	155
SW-4	2	09/14/2022	SW-4-2-091422	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	289
SW-5	3	09/16/2022	SW-5-3'-091622	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	212
SW-6	3	09/16/2022	SW-6-3'-091622	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	525
SW-7	3	09/16/2022	SW-7-3'-091622	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.8	<49.8	<49.8	<49.8	235
SW-8	3	09/22/2022	SW-8-3'-092222	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	79.7
SW-9	3	09/22/2022	SW-9-3'-092222	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	186
SW-10	3	09/16/2022	SW-10-3'-091622	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	249
SW-11	3	09/21/2022	SW-11-3'-092122	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	357
SW-12	2	09/20/2022	SW-12-2'-092022	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	98.2
SW-13	3	09/22/2022	SW-13-3'-092222	In-Situ	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<49.9	<49.9	<49.9	<49.9	148
SW-14	3	09/22/2022	SW-14-3'-092222	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<49.9	<49.9	<49.9	<49.9	225
SW-15	3	09/21/2022	SW-15-3'-092122	In-Situ	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.0	<50.0	<50.0	<50.0	498
SW-16	3	09/22/2022	SW-16-3'-092222	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	74.8
B-28	1	12/7/2023	B-28-S-120723	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.4	<50.0	<49.9	62.3	46900



Table 1
2021-2023 Soil Analytical Results
COG (ConocoPhillips)
Asio Otis CTB Incident # NAPP2130843614

Location ID	Depth (Feet)	Date Collected	Sample Name	Soil Status	BTEX					TPH				Gen Chem
					Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes, Total mg/kg	Total BTEX mg/kg	Gasoline Range Organics (GRO)-C6-C10 mg/kg	Diesel Range Organics (Over C10-C28) mg/kg	Oil Range Organics (Over C28-C36) mg/kg	Total TPH mg/kg	Chloride, Dissolved mg/kg
B-29	1	12/7/2023	B-29-S-120723	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<50.0	67.2	<50.0	67.2	31600
B-30	1	12/7/2023	B-30-S-120723	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	52.2	<49.9	52.2	54200
B-31	1	12/7/2023	B-31-S-120723	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.4	<50.4	<50.4	<50.4	34600
B-32	1	12/7/2023	B-32-S-120723	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	178	58.2	236	25100
H-E	1	12/7/2023	H-E-S-120723	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.3	<50.3	<50.3	<50.3	65.5
H-N	1	12/7/2023	H-N-S-120723	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	23.9
H-S	1	12/7/2023	H-S-S-120723	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.1	<50.1	<50.1	<50.1	296
NTG Environmental Samples Below														
T-6	0-1	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48,800
	1	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	4,080
	2	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	4,240
	3	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	2,640
	4	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	624
	5	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	128
	6	12/7/2021	T-6	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	128
T-7	0-1	12/6/2021	T-7	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	28	<10.0	28	72,800
	1	12/6/2021	T-7	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	8,260
	2	12/6/2021	T-7	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	13,400
	3	12/6/2021	T-7	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	4,800
	4	12/6/2021	T-7	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	416
	5	12/6/2021	T-7	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	448
H-1	0.5	10/27/2021	H-1	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<50.0	<50.0	<50.0	<50.0	51.8
H-2	0.5	10/27/2021	H-2	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.8	<49.8	<49.8	<49.8	49.3
H-3	0.5	10/27/2021	H-3	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	71.7
H-4	0.5	10/27/2021	H-4	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	62.8
H-5	0.5	10/27/2021	H-5	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	43.0
H-6	0.5	10/27/2021	H-6	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	49.7
H-7	0.5	10/27/2021	H-7	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<49.9	<49.9	<49.9	<49.9	56.2

Legend:

Analytes exceeding NMAC Standards are indicated in **bold**

'<' 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

TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics

TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics

TPH ORO: Total Petroleum Hydrocarbons Oil Range Organics

" ' " : Indicates one foot

" ' : Indicated inches

bgs: below ground surface

T: Trench Sample

H-Horizontal Sample

SW : Side wall sample

B : bottom sample

Notes:

1. Chloride analyzed by EPA Method 300

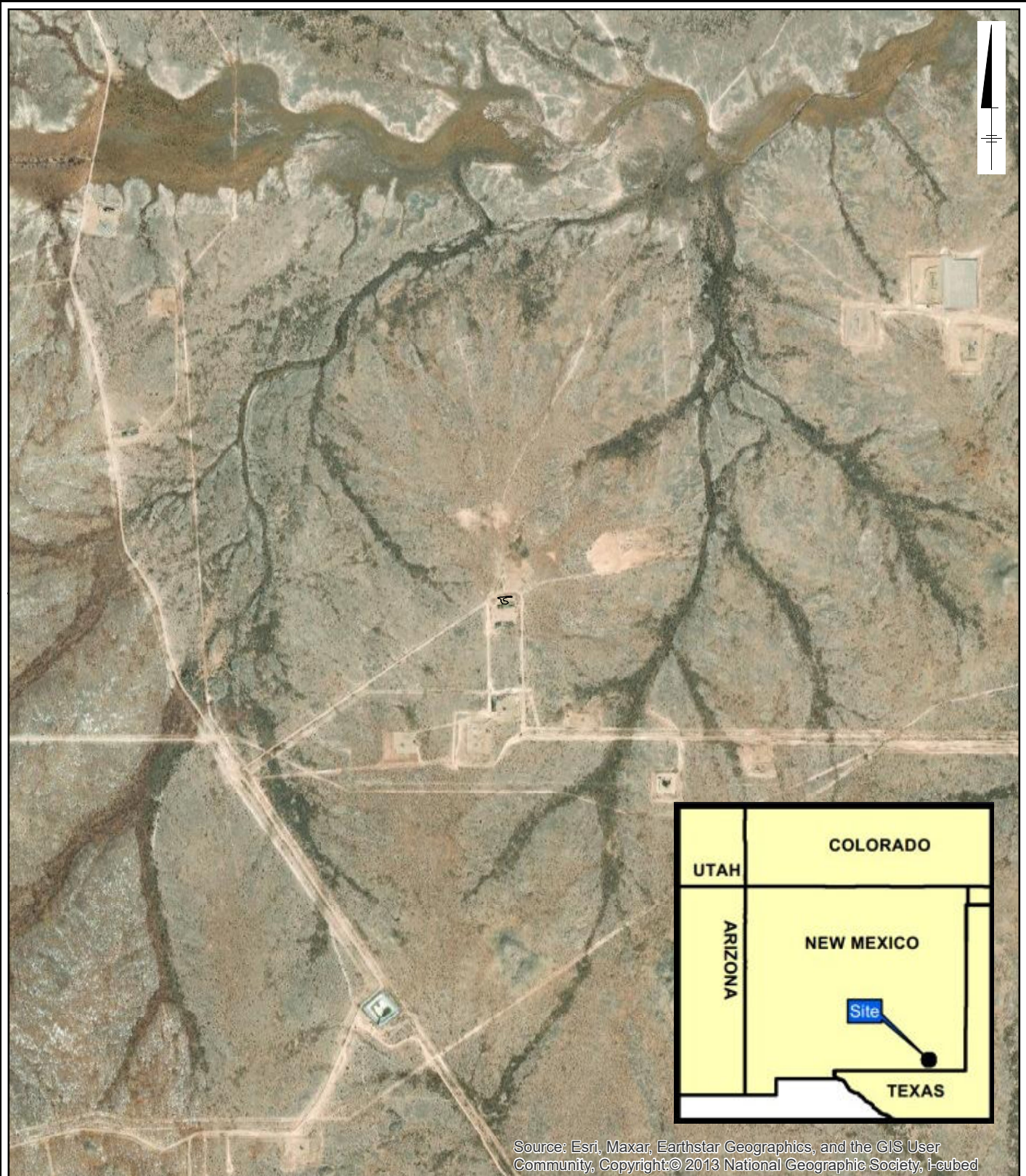
2. TPH analyzed by EPA Method 8015 M

3. BTEX analyzed by EPA Method 8260B

4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures

City: Div/Group: Created By: Last Saved By: WDBerndg
 Project (Project #)
 C:\BIM\OneDrive - ARCADIS\GIS\CONOCOPHILLIPS-ASIO OTIS CTB-EDDY COUNTY New Mexico\FIG1 ASIO OTIS CTB SLM.mxd 4/27/2023 4:14:35 PM

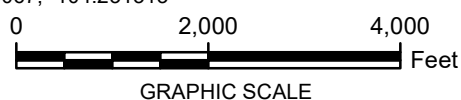


Legend

NOTES:

1. Datum: D_WGS_1984
2. Source: United States Geological Survey 7.5 Minute Quadrangle Map
3. Site Location: 32.040067, -104.231313

 Site Boundary



COG (CONOCOPHILLIPS)
 ASIO OTIS CTB
 EDDY COUNTY, NEW MEXICO

SITE LOCATION MAP



FIGURE
1

CITY (Read) DIV (GROUP) (Read) DB (Read) LD (Opt) PIC (Opt) PM (Read) TM (Opt) LVR (Opt) ON=OFF=REF*
D:\Arcadis\Land Services\ConocoPhillips\Asio_Otis\Asio_Otis_Fig-4.dwg LAYOUT: 4 SAVED: 4/4/2024 11:29 AM ACADVER: 21.05 (LMS TECH) PAGES: 15 PLOT: 15 PLOTSTYLETABLE: PLOTTED: 4/4/2024 11:31 AM BY: BERRY, WAYNE



NOTES:
Datum: D_WGS_1984
Source: Google Earth Map
Site Location: 32.040067, -104.231313

LEGEND:

-  STEEL SURFACE LINES
-  SURFACE POLYLINE
-  ABOVE GROUND STEEL FLOWLINE
-  EXCAVATED AREA
-  IMPACTED AREA
-  DEFFERAL AREA
-  HORIZONTAL DELINEATION SAMPLE LOCATION
-  VERTICAL DELINEATION SAMPLE LOCATION
-  BASE SAMPLE LOCATION



0 50' 100'

Approximate Scale: 1 in. = 50 ft.

COG (CONOCOPHILLIPS)
ASIO OTIS CTB
EDDY COUNTY, NEW MEXICO

**DELINEATION SOIL
SAMPLE LOCATIONS**



FIGURE

2

Photographic Logs



PHOTOGRAPHIC LOG

Property Name: Asio Otis CTB		Location: Loving County, NM	Case No. NAPP2130843614
Photo No. 1	Date: 09/23/2022		
Direction Photo Taken: N			
Description: Location sign 32.040067, -104.231313			



PHOTOGRAPHIC LOG

Property Name: Asio Otis CTB		Location: Loving County, NM	Case No. NAPP2130843614
Photo No. 2	Date: 09/23/2022		
Direction Photo Taken: SE			
Description: Proposed deferral area. N of tank battery wall with stationary steel lines on surface and elevated, stainless-steel lines, and surface poly lines from tank battery pad. 32.040067, -104.231313			

Appendix A

Initial C-141 Form Incident #NAPP2130843614

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.	
☐ The impacted area has been secured to protect human health and the environment.	
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Patricia Zapanta</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>11/8/2021</u>

Received by OCD: 4/11/2024 8:20:31 AM				L48 Spill Volume Estimate Form			NAPP2130843614		Page 21 of 229	
Facility Name & Number:				Asio Otis						
Asset Area:				NDBW-N						
Release Discovery Date & Time:				10-17-21 10:30am						
Release Type:				Produced Water						
Provide any known details about the event:										
Spill Calculation - Subsurface Spill - Rectangle										
Was the release on pad or off-pad?				See reference table below						
Has it rained at least a half inch in the last 24 hours?				See reference table below						
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)	
Rectangle A	15.0	5.0	20.00	0.00%	22.250	0.000				
Rectangle B	66.0	8.0	0.20	11.00%	1.566	0.172				
Rectangle C	132.0	8.0	0.20	11.00%	3.133	0.345				
Rectangle D	204.0	8.0	0.20	11.00%	4.842	0.533				
Rectangle E					0.000	0.000				
Rectangle F					0.000	0.000				
Rectangle G					0.000	0.000				
Rectangle H					0.000	0.000				
Rectangle I					0.000	0.000				
Rectangle J					0.000	0.000				
Total Volume Release:						1.049				
Released to Imaging: 7/3/2024 1:47:02 PM										

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

CONDITIONS

Action 60247

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 60247
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
marcus	None	11/8/2021

Appendix B

Work Plan



Site Information

Work Plan

**Asio Otis CTB (10.18.21)
Eddy County, New Mexico
Unit K Sec 18 T26S R27E
Incident #: NAPP2130843614
32.040067°, -104.231313°**

Produced Water Release

**Source: Failed bull plug due to corrosion
Release Date: 10/18/2021
Volume Released: 31 bbls/Produced Water
Volume Recovered: 20 bbls/Produced Water**

**Prepared for:
COG Operating, LLC
15 West London Rd
Loving, NM 88256**

**Prepared by:
NTG Environmental
701 Tradewinds Blvd
Suite C
Midland, TX 79706**



TABLE OF CONTENTS

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FIGURE 2	TOPOGRAPHIC MAP
FIGURE 3	SITE LOCATION MAP
FIGURE 4	PROPOSED EXCAVATION AREA & DEPTH MAP

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PHOTOS	PHOTOLOG

APPENDICES

APPENDIX A	C-141 INITIAL AND C-141 REMEDIATION
APPENDIX B	GROUNDWATER RESEARCH
APPENDIX C	LABORATORY ANALYTICAL REPORTS



701 Tradewinds Boulevard, Suite C
Midland, Texas 79706
Tel. 432.685.3898
www.ntglobal.com

January 26, 2022

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Work Plan
Asio Otis CTB (10.18.21)
COG Operating, LLC
Site Location: Unit K, S18, T26S, R27E
Incident #: NAPP2130843614
(Lat 32.040067°, Long -104.231313°)
Eddy County, New Mexico

Mr. Bratcher:

On behalf of Concho Operating, LLC (COG), New Tech Global Environmental, LLC (NTGE) has prepared this letter to document site assessment activities for the Asio Otis CTB (10.18.21) release. The site is located at 32.040067°, -104.231313° within Unit K, S18, T26S, R27E, and approximately 15.83 miles Southwest of Malaga, New Mexico, in Eddy County (Figures 1 and 2).

Background

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on October 18, 2021, caused by a corroded bull plug. It resulted in the release of approximately thirty-one (31) barrels of produced water, and twenty (20) barrels of produced water were recovered. The impacted area measured approximately 155' x 125', as shown on Figure 3. The initial C-141 form is attached in Appendix A.

Site Characterization

The site is located within a medium karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, there is no known water source within a ½ mile radius of the location. The nearest identified well is located approximately 1.35 miles Northwest of the site in S12, T26S, R26E, and drilled in 2018. The well has a reported depth to groundwater of 12.60' feet below ground surface (ft bgs). A copy of the associated *National Water Information System* report is attached in Appendix B.

Regulatory Criteria

In accordance with the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg

Assessment Activities

Trenches

On December 7, 2021, NTGE personnel were on site to vertically define the release. A total of seven (7) trenches (T-1 through T-7) were installed to total depths ranging from surface to 6 ft below the surface. Soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 4500. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3.

Referring to Table 1, all samples were below the regulatory limits for TPH, Benzene, and Total BTEX. The area of T-1 had chloride concentration values ranging from 60,000 mg/kg to 560 mg/kg at a depth from the surface to 2' below the surface. The area of T-2 had chloride concentration values ranging from 59,200 mg/kg to 1,200 mg/kg at a depth from the surface to 4' below the surface. The area of T-3 had chloride concentration values ranging from 128,000 mg/kg to 448 mg/kg at a depth from the surface to 3' below the surface. The area of T-4 had chloride concentration values ranging from 28,000 mg/kg to 32.0 mg/kg at a depth from the surface to 6' below the surface. The area of T-5 had chloride concentration values ranging from 95,200 mg/kg to 432 mg/kg and at a depth from the surface to 3' below the surface. The area of T-6 had chloride concentration values ranging from 48,800 mg/kg to 128 mg/kg at a depth from the surface to 5' below the surface. The area of T-7 had chloride concentration values ranging from 72,800 mg/kg to 416 mg/kg at a depth from the surface to 4' below the surface.

All Horizontal samples (H-1 through H-7) were below the regulatory limits.

Proposed Work Plan

Based on the laboratory results and the detected chloride concentrations, COG proposes to excavate the areas as shown in Figure 4 and highlighted (yellow) in Table 1.

- The area of T-1 will be excavated to 2' below surface and backfilled with clean material to grade.
- The areas of T-3 and T-5 will be excavated to a depth of 3' below surface and backfilled with clean material to grade.
- The area of T-7 will be excavated to a depth of 4' below surface and backfilled with clean material to grade.
- The areas of T-2 and T-6 will be excavated to a depth of 5' below surface and backfilled with clean material to grade.
- The area of T-4 will be excavated to a depth of 6' below surface and backfilled with clean material to grade.

Safety Concerns

Due to wall cave-ins and safety concerns, the proposed excavation depths may not be reached for the onsite personnel. In addition, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safety concerns for onsite personnel. COG will excavate the impacted soils to the maximum extent possible.

Composite sidewall and bottom hole samples will be collected every 400 square feet and analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B. Chloride by EPA method 300.0., to be representative of the release area for documentation purposes. COG estimates approximately 1,400 cubic yards to be removed and hauled to the nearest disposal. Once the site activities and excavation are complete, the areas will be backfilled with clean material to surface grade. The remediation will be implemented 90 days after the work plan is approved.

Conclusions

Upon completion, a final report detailing the remediation activities will be submitted to the NMOCD. If you have any questions regarding this report or need additional information, please contact us at 432-813-0263.

Sincerely,
NTG Environmental



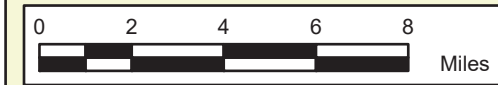
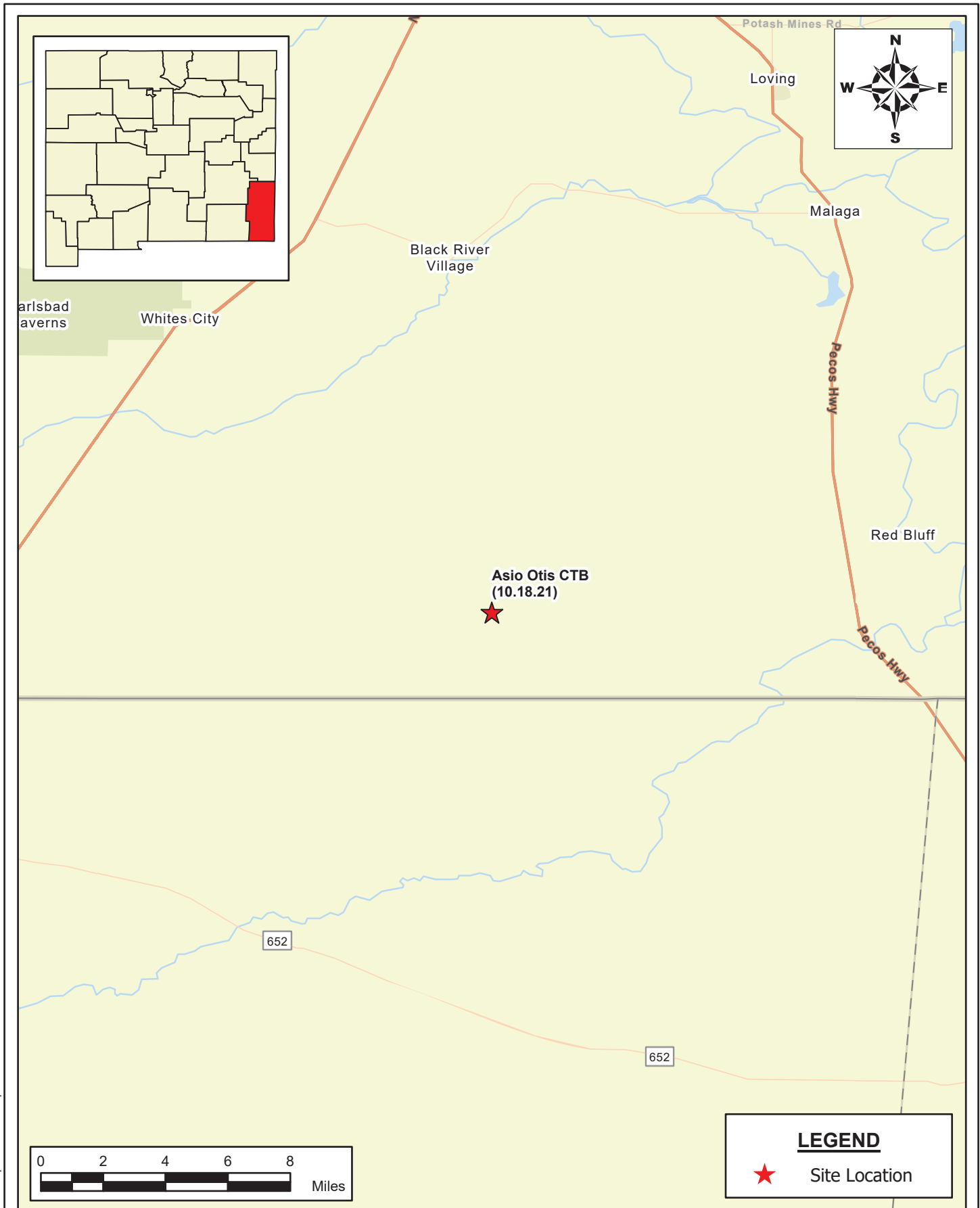
Mike Carmona
Senior Project Manager



Ashton Thielke
Project Manager



Figures



LEGEND

★ Site Location

SITE LOCATION MAP
COG OPERATING LLC
 ASIO OTIS CTB (10.18.21)
 EDDY COUNTY, NEW MEXICO
 32.040067, -104.231313

SCALE: As Shown Date: 12/30/2021 PROJECT #: 214821

New Tech Global Environmental, LLC
 911 Regional Park Drive
 Houston, Texas 77060
 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntglobal.com



NOTES:

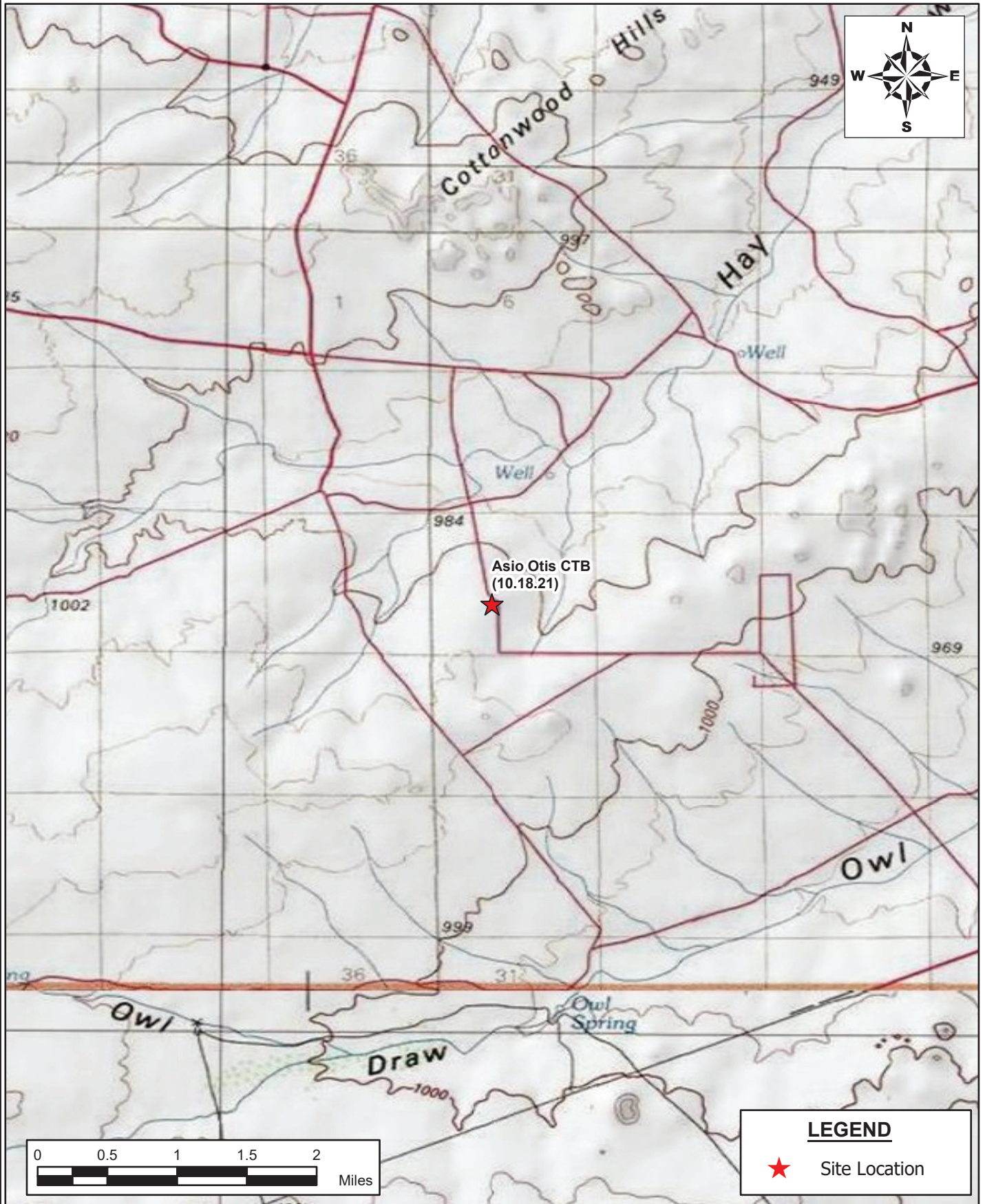
1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

FIGURE 1

SHEET NUMBER:

1 of 1



LEGEND

★ Site Location

AREA MAP
COG OPERATING LLC
 ASIO OTIS CTB (10.18.21)
 EDDY COUNTY, NEW MEXICO
 32.040067, -104.231313

New Tech Global Environmental, LLC
 911 Regional Park Drive
 Houston, Texas 77060
 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntglobal.com

NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

FIGURE 2

SHEET NUMBER:

1 of 1

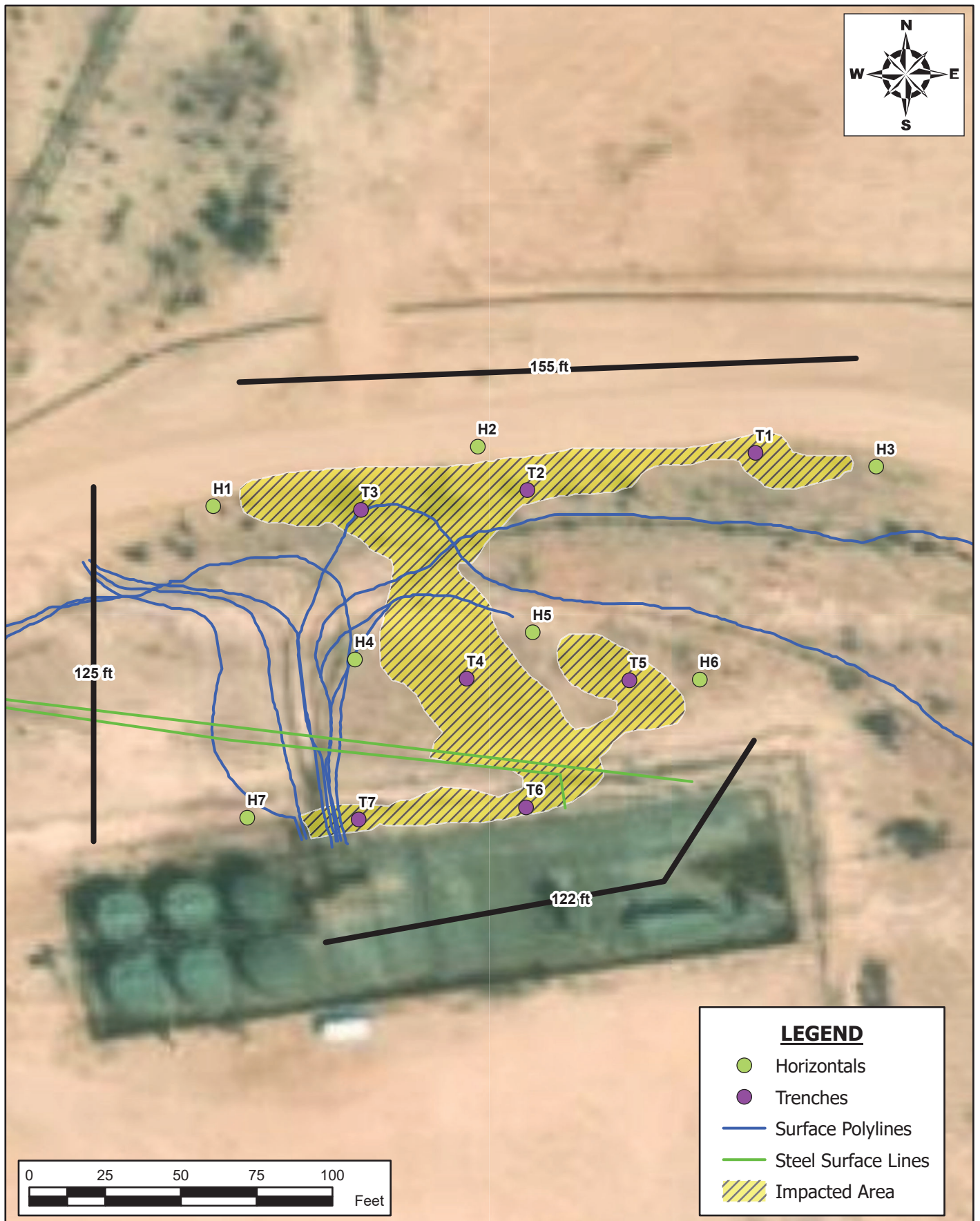
SCALE: As Shown

Date: 12/30/2021

PROJECT #: 214821

Document Path: P:\Full Figure Template Revised.aprx

Document Path: P:\2021 PROJECTS\COGRSC\214821 - Asio Otis CTB (10.18.21)\7 - Figures\GIS\Geodatabase\Asio Otis CTB Figures.aprx



SAMPLE LOCATION MAP
COG OPERATING LLC
 ASIO OTIS CTB (10.18.21)
 EDDY COUNTY, NEW MEXICO
 32.040067, -104.231313

SCALE: As Shown

Date: 1/20/2022

PROJECT #: 214821



New Tech Global Environmental, LLC
 911 Regional Park Drive
 Houston, Texas 77060
 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntglobal.com

NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

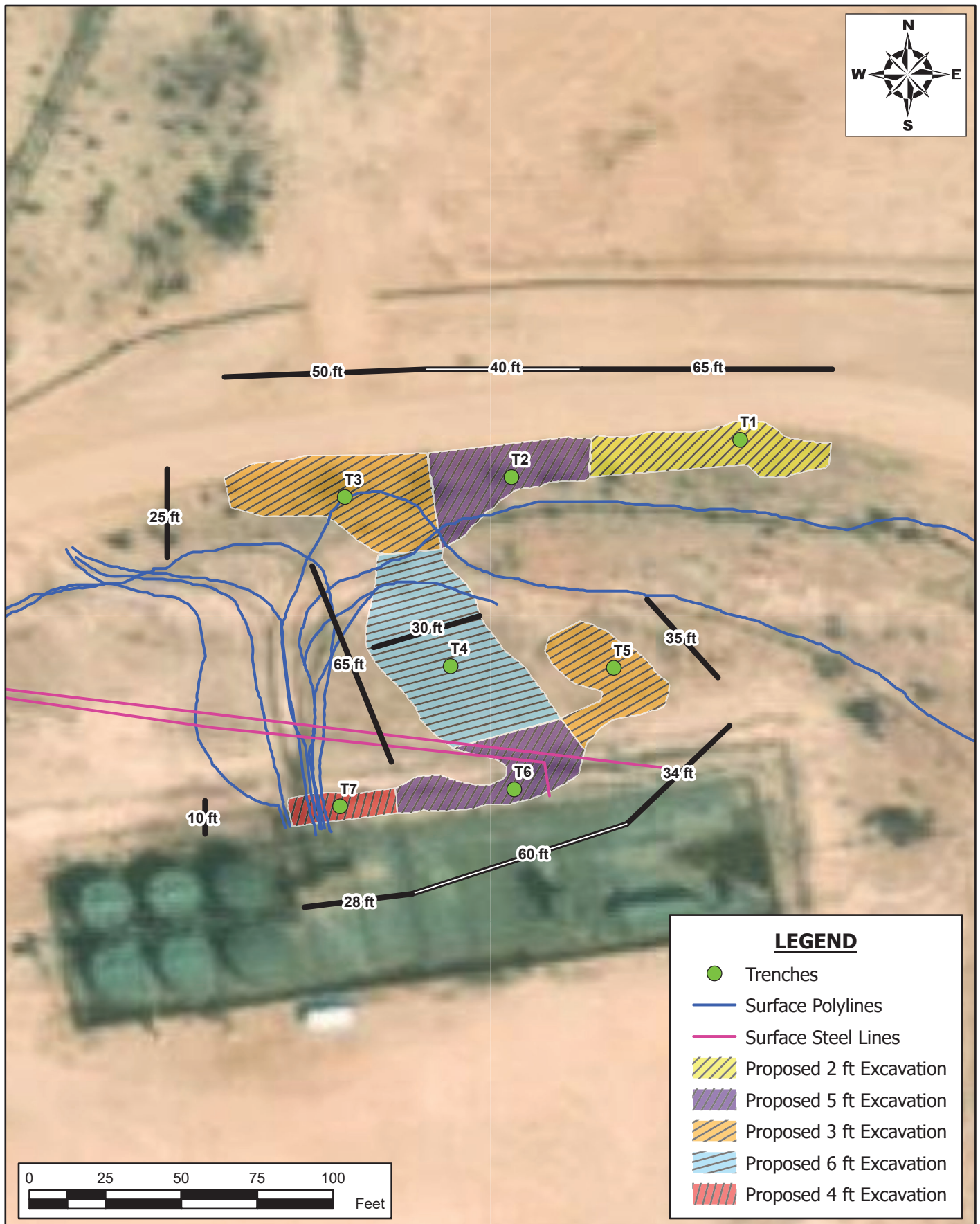
DRAWING NUMBER:

FIGURE 3

SHEET NUMBER:

1 of 1

Document Path: P:\2021 PROJECTS\COGRSC\214821 - Asio Otis CTB (10.18.21)\7 - Figures\GIS\Geodatabase\Asio Otis CTB Figures.aprx



PROPOSED EXCAVATION DEPTH MAP
COG OPERATING LLC
 ASIO OTIS CTB (10.18.21)
 EDDY COUNTY, NEW MEXICO
 32.040067, -104.231313

SCALE: As Shown

Date: 1/19/2022

PROJECT #: 214821



New Tech Global Environmental, LLC
 911 Regional Park Drive
 Houston, Texas 77060
 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntglobal.com

NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

FIGURE 4

SHEET NUMBER:

1 of 1



Tables

Table 1
Concho Operating, LLC
Asio Otis CTB (10.18.21)
Eddy County, New Mexico

Sample ID	Date	Sample Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
T-1	12/7/2021	0-1	<10.0	14.5	<10.0	14.5	<0.050	<0.050	<0.050	<0.150	<0.300	60,000
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	688
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	560
T-2	12/7/2021	0-1	<10.0	40.0	<10.0	40.0	<0.050	<0.050	<0.050	<0.150	<0.300	59,200
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	5,600
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,640
	"	3	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	496
T-3	12/7/2021	0-1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128,000
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,480
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,200
	"	3	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	448
T-4	12/7/2021	0-1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	12,300
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	28,000
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	7,060
	"	3	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	6,000
	"	4	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,400
	"	5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,060
	"	6	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
T-5	12/7/2021	0-1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	95,200
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,440
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,620
	"	3	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	432
T-6	12/7/2021	0-1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48,800
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,080
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,240
	"	3	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,640
	"	4	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	624
	"	5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
T-7	12/6/2021	0-1	<10.0	28	<10.0	28	<0.050	<0.050	<0.050	<0.150	<0.300	72,800
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	8,260
	"	2	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	13,400
	"	3	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	4,800
	"	4	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	416
H-1	10/27/2021	0.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	51.8
	H-2	10/27/2021	0.5	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	49.3
	H-3	10/27/2021	0.5	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	71.7
	H-4	10/27/2021	0.5	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	62.8
	H-5	10/27/2021	0.5	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	43.0
	H-6	10/27/2021	0.5	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	49.7
	H-7	10/27/2021	0.5	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	56.2
Regulatory Limits						100 mg/kg	10 mg/kg				50 mg/kg	600 mg/kg

Proposed Excavation Depths
 (-) Not Analyzed
 A - Table 1 - 19.15.29 NMAC
 mg/kg - milligram per kilogram
 TPH- Total Petroleum Hydrocarbons
 ft-feet



Photo Log

PHOTOGRAPHIC LOG

COG Operating, LLC

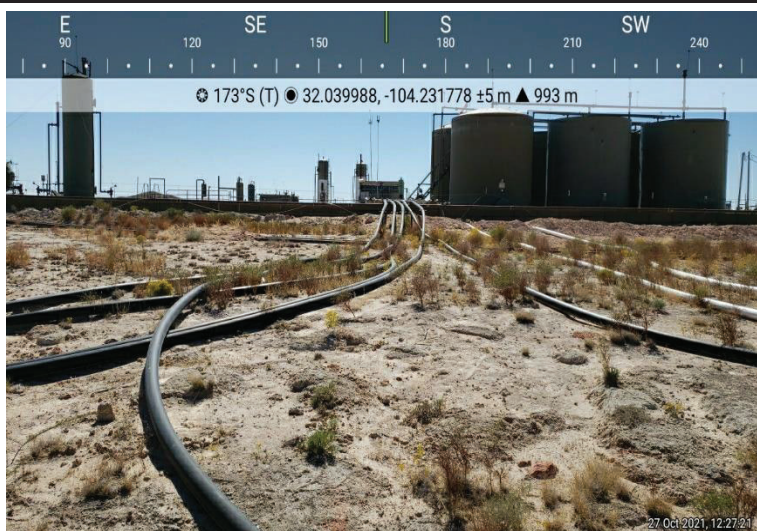
Photograph No. 1

Facility: Asio Otis CTB (10.18.21)

County: Eddy County, New Mexico

Description:

View South, area of T-2 through T-7.



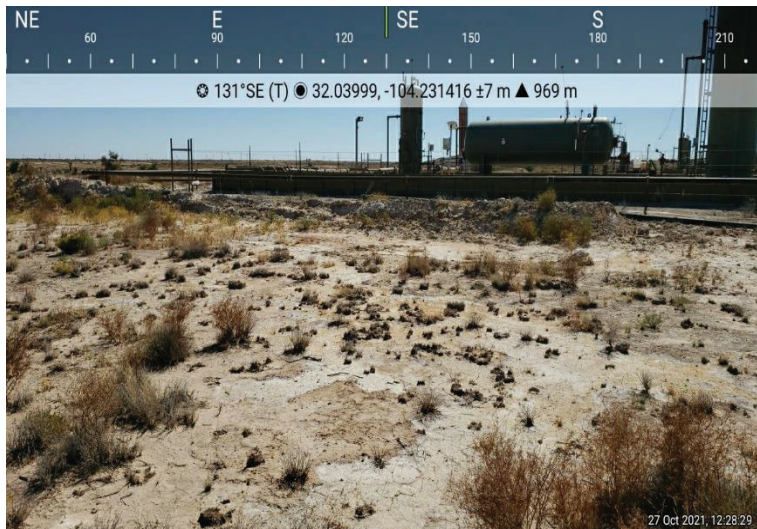
Photograph No. 2

Facility: Asio Otis CTB (10.18.21)

County: Eddy County, New Mexico

Description:

View Southeast, area of T-4 through T-7.



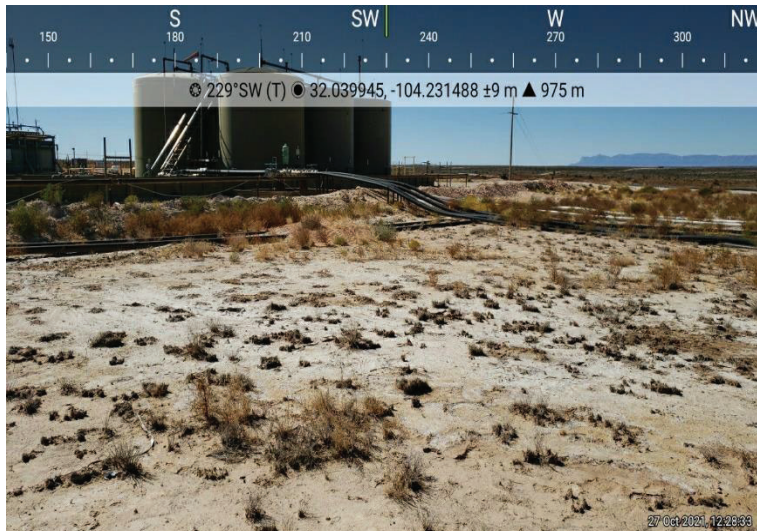
Photograph No. 3

Facility: Asio Otis CTB (10.18.21)

County: Eddy County, New Mexico

Description:

View Southwest, area of T-5 through T-7.





Appendix A

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAPP2130843614
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jacqui Harris	Contact Telephone	575-496-0780
Contact email	Jacqui.Harris@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2130843614
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.039781 Longitude -104.23156
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	ASIO Otus CTB	Site Type	Tank Battery
Date Release Discovered	October 18, 2021	API# (if applicable)	

Unit Letter	Section	Township	Range	County
K	18	26S	27E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 31	Volume Recovered (bbls) 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a bull plug falling off due to corrosion.
The release occurred within the lined facility and over flowed into the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area evaluated for any possible impact from the release.

Incident ID	NAPP2130843614
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The volume released was greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given by Jacqui Harris via e-mail October 18, 2021 at 4:54 pm to ocd.enviro@state.nm.us and blm_nm_cfo_spill@blm.gov.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Brittany N. Esparza	Title: Environmental Technician
Signature: 	Date: 11/4/2021
email: Brittany.Esparza@ConocoPhillips.com	Telephone: (432) 221-0398
<u>OCD Only</u>	
Received by: Ramona Marcus	Date: 11/8/2021

Received by OCD: 11/4/2021 12:10:14 PM					L48 Spill Volume Estimate Form		NAPP2130843614		Page 3 of 4	
Facility Name & Number:					Asio Otis					
Asset Area:					NDBW-N					
Release Discovery Date & Time:					10-17-21 10:30am					
Release Type:					Produced Water					
Provide any known details about the event:										
Spill Calculation - Subsurface Spill - Rectangle										
Was the release on pad or off-pad?					See reference table below					
Has it rained at least a half inch in the last 24 hours?					See reference table below					
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)	
Rectangle A	15.0	5.0	20.00	0.00%	22.250	0.000				
Rectangle B	66.0	8.0	0.20	11.00%	1.566	0.172				
Rectangle C	132.0	8.0	0.20	11.00%	3.133	0.345				
Rectangle D	204.0	8.0	0.20	11.00%	4.842	0.533				
Rectangle E					0.000	0.000				
Rectangle F					0.000	0.000				
Rectangle G					0.000	0.000				
Rectangle H					0.000	0.000				
Rectangle I					0.000	0.000				
Rectangle J					0.000	0.000				
Total Volume Release:						1.049				

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

CONDITIONS

Action 60247

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 60247
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
marcus	None	11/8/2021

Incident ID	NAPP2130843614
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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?	<u>12.60</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: <i>Each of the following items must be included in the report.</i> ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.☐ Field data☒ Data table of soil contaminant concentration data☒ Depth to water determination☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release☐ Boring or excavation logs☒ Photographs including date and GIS information☒ Topographic/Aerial maps☒ Laboratory data including chain of custody
--

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2130843614
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jacqui Harris Title: Sr. Environmental Engineer

Signature: _____ Date: _____

email: jacqui.harris@conocophillips.com Telephone: 575-745-1807

OCD Only

Received by: _____ Date: _____

Incident ID	NAPP2130843614
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jacqui Harris Title: Sr. Environmental Engineer
Signature: _____ Date: _____
email: jacqui.harris@conocophillips.com Telephone: 575-745-1807

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____



Appendix B

Nearest Water Well

COG Operating, LLC

Legend

0.50 Mile Radius

1.35 Miles

1.56 Miles

2.33 Miles

2.46 Miles

2.62 Miles

3.55 Miles

3.62 Miles

Asio Otis CTB (10.18.21)

NMSEO Water Well

USGS Water Well



Medium Karst

COG Operating, LLC

Legend

- Asio Otis CTB (10.18.21)
- MEDIUM

Asio Otis CTB (10.18.21)





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 04269 POD1	CUB	ED		4	2	3	18	26S	27E	572620	3545176	94	105		
C 02218	CUB	ED		4	1	4	07	26S	27E	573039	3546725*	1684	35		
C 02438	CUB	ED		4	2	3	12	26S	26E	571015	3546705*	2210	30		
C 02219	CUB	ED		4	4	4	05	26S	27E	575033	3547948*	3768	35		
C 01887	C	ED		4	4	2	15	26S	26E	568614	3545497*	3953	53	31	22
C 02439	CUB	ED		2	4	2	15	26S	26E	568614	3545697*	3977	30		

Average Depth to Water: **31 feet**

Minimum Depth: **31 feet**

Maximum Depth: **31 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 572548.81

Northing (Y): 3545113.72

Radius: 4023

*UTM location was derived from PLSS - see Help

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

10/27/21 9:07 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
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30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
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42	42
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68	68
69	69
70	70
71	71
72	72
73	73
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75	75
76	76
77	77
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80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Q64 Q16 Q4 Sec TwS Rng

X	Y
---	---

C 02930

2 3 4 22 26S 27E 577938 3543284*

Driller License: 1227

Driller Company: B & H DRILLING

Driller Name:**Drill Start Date:** 09/06/2002

Drill Finish Date: 09/12/2002

Plug Date:

Log File Date: 12/19/2002

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 120 GPM

Casing Size: 6.00

Depth Well: 100 feet

Depth Water: 50 feet

Water Bearing Stratifications:

Top	Bottom	Description
1	2	3

50 62 Sandstone/Gravel/Conglomerate

80 100 Limestone/Dolomite/Chalk

Casing Perforations:

Top Bottom

50 100

***UTM location was derived from PLSS - see Help**

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

1/18/22 3:39 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
	C 01887	4	4	2	15	26S	26E	568614	3545497* 
Driller License:	817	Driller Company:				WEST, BILLY GEORGE			
Driller Name:	GEORGE WEST								
Drill Start Date:	03/26/1980	Drill Finish Date:				04/27/1980		Plug Date:	
Log File Date:	05/09/1980	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	12 GPM
Casing Size:	6.00	Depth Well:				53 feet		Depth Water:	31 feet
Water Bearing Stratifications:					Top	Bottom	Description		
					42	45	Sandstone/Gravel/Conglomerate		
Casing Perforations:					Top	Bottom			
					40	53			

*UTM location was derived from PLSS - see Help

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

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Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320124104110601

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320124104110601 26S.27E.22.43242

Eddy County, New Mexico
Latitude 32°01'21.8", Longitude 104°10'24.4" NAD83
Land-surface elevation 3,095 feet above NGVD29
The depth of the well is 56 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Castile Formation (312CSTL) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1987-10-13			D 62610		3082.58	NGVD29	3	S			A
1987-10-13			D 62611		3084.21	NAVD88	3	S			A
1987-10-13			D 72019	12.42			3	S			A
1992-11-04			D 62610		3076.22	NGVD29	1	S	USGS	S	A
1992-11-04			D 62611		3077.85	NAVD88	1	S	USGS	S	A
1992-11-04			D 72019	18.78			1	S	USGS	S	A
1992-11-18			D 62610		3076.52	NGVD29	1	S	USGS	S	A
1992-11-18			D 62611		3078.15	NAVD88	1	S	USGS	S	A
1992-11-18			D 72019	18.48			1	S	USGS	S	A
1998-01-13			D 62610		3070.48	NGVD29	1	S	USGS	S	A
1998-01-13			D 62611		3072.11	NAVD88	1	S	USGS	S	A
1998-01-13			D 72019	24.52			1	S	USGS	S	A
2003-01-29			D 62610		3064.65	NGVD29	1	S	USGS	S	A
2003-01-29			D 62611		3066.28	NAVD88	1	S	USGS	S	A
2003-01-29			D 72019	30.35			1	S	USGS	S	A
2013-01-09	21:20 UTC	m	62610		3053.61	NGVD29	3	S	USGS	S	A
2013-01-09	21:20 UTC	m	62611		3055.24	NAVD88	3	S	USGS	S	A
2013-01-09	21:20 UTC	m	72019	41.39			3	S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute

Section	Code	Description
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	3	True value is above reported value due to local conditions
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Agency code = usgs

site_no list =

- 320244104161501

Minimum number of levels = 1

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USGS 320244104161501 26S.26E.15.24444

Eddy County, New Mexico
Latitude 32°02'44", Longitude 104°16'15" NAD27
Land-surface elevation 3,280 feet above NAVD88
The depth of the well is 53 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1983-08-24		D	62610		3246.37	NGVD29	1	Z			A
1983-08-24		D	62611		3248.04	NAVD88	1	Z			A
1983-08-24		D	72019	31.96			1	Z			A
1987-10-08		D	62610		3248.64	NGVD29	1	Z			A
1987-10-08		D	62611		3250.31	NAVD88	1	Z			A
1987-10-08		D	72019	29.69			1	Z			A
1992-11-18		D	62610		3246.72	NGVD29	1	S			A
1992-11-18		D	62611		3248.39	NAVD88	1	S			A
1992-11-18		D	72019	31.61			1	S			A
1998-01-08		D	62610		3242.41	NGVD29	1	S			A
1998-01-08		D	62611		3244.08	NAVD88	1	S			A
1998-01-08		D	72019	35.92			1	S			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.

Section	Code	Description
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 320323104112901

Minimum number of levels = 1
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USGS 320323104112901 26S.27E.07.414444

Eddy County, New Mexico
Latitude 32°03'23", Longitude 104°11'29" NAD27
Land-surface elevation 3,268 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Castile Formation (312CSTL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1978-01-25			D 62610		3257.04	NGVD29	1	Z			A
1978-01-25			D 62611		3258.69	NAVD88	1	Z			A
1978-01-25			D 72019	9.31			1	Z			A
1983-01-25			D 62610		3258.77	NGVD29	3	Z			A
1983-01-25			D 62611		3260.42	NAVD88	3	Z			A
1983-01-25			D 72019	7.58			3	Z			A
1987-10-08			D 62610		3258.70	NGVD29	1	Z			A
1987-10-08			D 62611		3260.35	NAVD88	1	Z			A
1987-10-08			D 72019	7.65			1	Z			A
1988-04-07			D 62610		3259.93	NGVD29	1	Z			A
1988-04-07			D 62611		3261.58	NAVD88	1	Z			A
1988-04-07			D 72019	6.42			1	Z			A
1992-11-18			D 62610		3257.57	NGVD29	1	S			A
1992-11-18			D 62611		3259.22	NAVD88	1	S			A
1992-11-18			D 72019	8.78			1	S			A
1998-01-13			D 62610		3252.60	NGVD29	1	S			A
1998-01-13			D 62611		3254.25	NAVD88	1	S			A
1998-01-13			D 72019	13.75			1	S			A
2003-01-28			D 62610		3248.60	NGVD29	1	S	USGS	S	A
2003-01-28			D 62611		3250.25	NAVD88	1	S	USGS	S	A
2003-01-28			D 72019	17.75			1	S	USGS	S	A

Explanation		
Section	Code	Description

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	3	True value is above reported value due to local conditions
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Agency code = usgs

site_no list =

- 320320104145101

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320320104145101 26S.26E.12.34120

Eddy County, New Mexico
Latitude 32°03'09.7", Longitude 104°14'56.7" NAD83
Land-surface elevation 3,230.90 feet above NGVD29
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1978-01-25		D	62610		3217.55	NGVD29	1	Z			A
1978-01-25		D	62611		3219.22	NAVD88	1	Z			A
1978-01-25		D	72019	13.35			1	Z			A
1992-11-18		D	62610		3218.87	NGVD29	1	S			A
1992-11-18		D	62611		3220.54	NAVD88	1	S			A
1992-11-18		D	72019	12.03			1	S			A
1998-01-13		D	62610		3215.24	NGVD29	1	S			A
1998-01-13		D	62611		3216.91	NAVD88	1	S			A
1998-01-13		D	72019	15.66			1	S			A
2003-01-28		D	62610		3214.44	NGVD29	1	S	USGS	S	A
2003-01-28		D	62611		3216.11	NAVD88	1	S	USGS	S	A
2003-01-28		D	72019	16.46			1	S	USGS	S	A
2013-01-09	22:10 UTC	m	62610		3213.80	NGVD29	1	S	USGS	S	A
2013-01-09	22:10 UTC	m	62611		3215.47	NAVD88	1	S	USGS	S	A
2013-01-09	22:10 UTC	m	72019	17.10			1	S	USGS	S	A
2018-02-15	22:14 UTC	m	62610		3218.30	NGVD29	1	S	USGS	S	A
2018-02-15	22:14 UTC	m	62611		3219.97	NAVD88	1	S	USGS	S	A
2018-02-15	22:14 UTC	m	72019	12.60			1	S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet

Section	Code	Description
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for New Mexico: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>



Page Contact Information: [New Mexico Water Data Maintainer](#)
Page Last Modified: 2021-10-27 11:21:45 EDT
0.35 0.31 nadww01



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Agency code = usgs
site_no list =

- 320343104110201

Minimum number of levels = 1
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USGS 320343104110201 26S.27E.08.13230

Eddy County, New Mexico
Latitude 32°03'32.4", Longitude 104°13'03.9" NAD83
Land-surface elevation 3,182.10 feet above NGVD29
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Castile Formation (312CSTL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

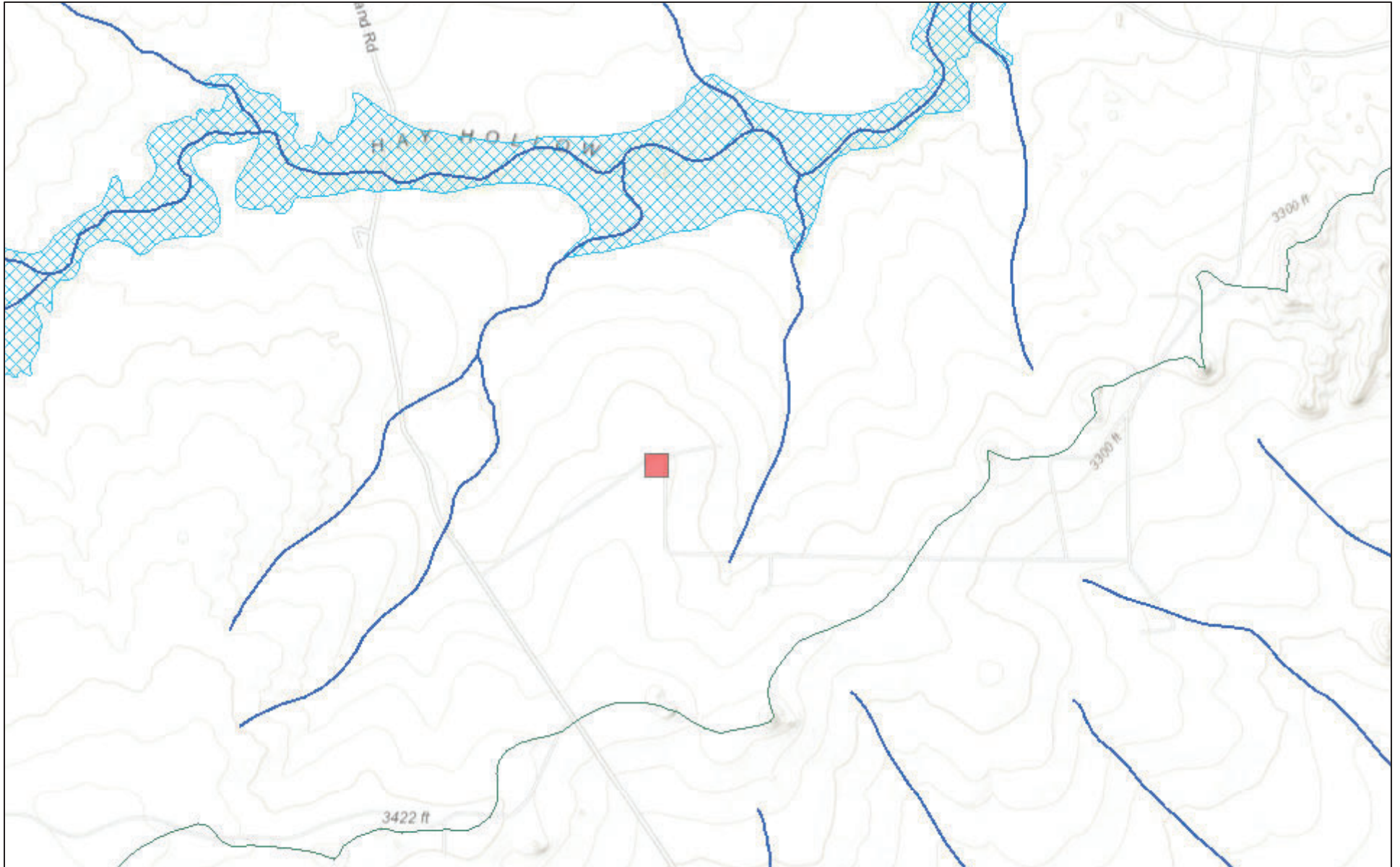
Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1978-01-03			D 62610		3164.52	NGVD29	1	Z			A
1978-01-03			D 62611		3166.18	NAVD88	1	Z			A
1978-01-03			D 72019	17.58			1	Z			A
1983-01-05			D 62610		3166.54	NGVD29	1	Z			A
1983-01-05			D 62611		3168.20	NAVD88	1	Z			A
1983-01-05			D 72019	15.56			1	Z			A
1987-10-08			D 62610		3167.72	NGVD29	1	Z			A
1987-10-08			D 62611		3169.38	NAVD88	1	Z			A
1987-10-08			D 72019	14.38			1	Z			A
1992-11-04			D 62610		3165.85	NGVD29	1	S			A
1992-11-04			D 62611		3167.51	NAVD88	1	S			A
1992-11-04			D 72019	16.25			1	S			A
1998-01-13			D 62610		3165.45	NGVD29	1	S			A
1998-01-13			D 62611		3167.11	NAVD88	1	S			A
1998-01-13			D 72019	16.65			1	S			A
2003-01-28			D 62610		3164.88	NGVD29	1	S	USGS		A
2003-01-28			D 62611		3166.54	NAVD88	1	S	USGS		A
2003-01-28			D 72019	17.22			1	S	USGS		A
2013-01-09	21:45 UTC	m	62610		3173.16	NGVD29	1	S	USGS	S	A
2013-01-09	21:45 UTC	m	62611		3174.82	NAVD88	1	S	USGS	S	A
2013-01-09	21:45 UTC	m	72019	8.94			1	S	USGS	S	A

Explanation		
Section	Code	Description

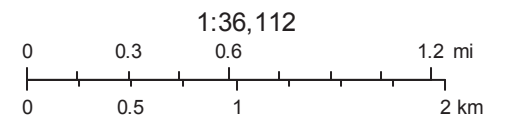
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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New Mexico NFHL Data



October 27, 2021



FEMA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,



National Water Information System: Mapper



Site Information

Appendix C

Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-19347-1

Laboratory Sample Delivery Group: Eddy County
Client Project/Site: Asio Otis 30133378
Revision: 1

For:

ARCADIS U.S., Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Attn: Justin Nixon

A handwritten signature in black ink, appearing to read "John Builes", is positioned above a horizontal line.

Authorized for release by:
10/7/2022 3:20:44 PM

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

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

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

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Laboratory Job ID: 880-19347-1
SDG: Eddy County

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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
*1	LCS/LCSD RPD exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Eurofins Midland

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Job ID: 880-19347-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-2979-1****Receipt**

The samples were received on 9/15/2022 12:48 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): SW-1-2-091422 (890-2979-1), SW-2-2-091422 (890-2979-2), SW-3-2-091422 (890-2979-3), B-2-3-091422 (890-2979-4), B-3-5-091422 (890-2979-5), B-4-5-091422 (890-2979-6), B-5-5-091422 (890-2979-7), B-6-3-091422 (890-2979-8), B-7-5-091422 (890-2979-9), B-8-5-091422 (890-2979-10), SW-4-2-091422 (890-2979-11), B-4-3.5-091422 (890-2979-12), B-9-6-091522 (890-2979-13), B-10-6-091522 (890-2979-14) and B-11-6-091522 (890-2979-15). The container labels list <SAMPLE_ID>, while the COC lists <SAMPLEID>. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

890-2979

6# B-4-5-091422 14:40

JAR-B-3-3 14:30 Same Samples

7# B-5-5-091422 14:50

JAR B-5-3 14:50 Same samples

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-34801/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-35157/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW-1-2-091422 (890-2979-1). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-35092/1-A) and (LCSD 880-35092/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: B-4-3.5-091422 (890-2979-12) and B-9-6-091522 (890-2979-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-35092 and analytical batch 880-35226 recovered outside control limits for the following analytes: Ethylbenzene, m-Xylene & p-Xylene, o-Xylene and Xylenes, Total. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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 RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-34673 and analytical batch 880-34714 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

HPLC/IC

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Job ID: 880-19347-1 (Continued)**Laboratory: Eurofins Carlsbad (Continued)**

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

Laboratory: Eurofins Midland**Narrative****Job Narrative
880-19347-1****Comments**

No additional comments.

Receipt

The samples were received on 9/16/2022 3:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4° C.

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: Sw-10-3'-091622 (880-19347-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: Sw-7-3'-091622 (880-19347-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-34983/2-A) and (LCSD 880-34983/3-A). Evidence of matrix interferences is not obvious.

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Narrative**Job Narrative
880-19544-1****Receipt**

The samples were received on 9/22/2022 10:49 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 4.4°C

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-36057 recovered above the upper control limit for o-Xylene and 4-Bromofluorobenzene (Surr). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-36057/33) and (LCS 880-36054/1-A).

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-36054/1-A) and (LCSD 880-36054/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-19544-A-6-C MS). Evidence of matrix

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Job ID: 880-19347-1 (Continued)

Laboratory: Eurofins Midland (Continued)

interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: B-21-5'-092122 (880-19544-6), B-22-6'-092122 (880-19544-7) and B-23-5'-092122 (880-19544-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW-15-3'-092122 (880-19544-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: B-6-3.5'-092122 (880-19544-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: o-Xylene biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-36054/1-A)

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: B-7-4'-092122 (880-19544-14). 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 880-35419 and analytical batch 880-35460 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

HPLC/IC

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

Narrative

Job Narrative 880-19583-1

Receipt

The samples were received on 9/23/2022 10:15 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 4.4°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW-13-3'-092222 (880-19583-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-35279 and analytical batch 880-35324 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-35422/2-A) and (LCSD 880-35422/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-35422 and analytical batch 880-35341 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Job ID: 880-19347-1 (Continued)

Laboratory: Eurofins Midland (Continued)

was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

HPLC/IC

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

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-12-6'-091522

Lab Sample ID: 880-19347-1

Date Collected: 09/15/22 15:00

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 16:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 16:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 16:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/26/22 09:51	09/26/22 16:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 16:51	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/26/22 09:51	09/26/22 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	09/26/22 09:51	09/26/22 16:51	1
1,4-Difluorobenzene (Surr)	92		70 - 130	09/26/22 09:51	09/26/22 16:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/22/22 10:29	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	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 11:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 11:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 11:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	09/20/22 15:30	09/21/22 11:11	1
o-Terphenyl	87		70 - 130	09/20/22 15:30	09/21/22 11:11	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	339		50.2		mg/Kg			09/16/22 22:14	10

Client Sample ID: B-13-6'-091522

Lab Sample ID: 880-19347-2

Date Collected: 09/15/22 15:05

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/26/22 09:51	09/26/22 17:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/26/22 09:51	09/26/22 17:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/26/22 09:51	09/26/22 17:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/26/22 09:51	09/26/22 17:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/26/22 09:51	09/26/22 17:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/26/22 09:51	09/26/22 17:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	09/26/22 09:51	09/26/22 17:12	1
1,4-Difluorobenzene (Surr)	87		70 - 130	09/26/22 09:51	09/26/22 17:12	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-13-6'-091522

Lab Sample ID: 880-19347-2

Date Collected: 09/15/22 15:05

Matrix: Solid

Date Received: 09/16/22 15:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/22/22 10:29	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	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 12:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 12:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 12:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130				09/20/22 15:30	09/21/22 12:15	1
o-Terphenyl	92		70 - 130				09/20/22 15:30	09/21/22 12:15	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	408		5.02		mg/Kg			09/19/22 12:19	1

Client Sample ID: B-14-6'-091522

Lab Sample ID: 880-19347-3

Date Collected: 09/15/22 15:10

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 17:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 17:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 17:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/26/22 09:51	09/26/22 17:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 17:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/26/22 09:51	09/26/22 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130				09/26/22 09:51	09/26/22 17:32	1
1,4-Difluorobenzene (Surr)	84		70 - 130				09/26/22 09:51	09/26/22 17:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/22/22 10:29	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	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 12:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 12:37	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-14-6'-091522

Lab Sample ID: 880-19347-3

Date Collected: 09/15/22 15:10

Matrix: Solid

Date Received: 09/16/22 15:45

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)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 12:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				09/20/22 15:30	09/21/22 12:37	1
o-Terphenyl	99		70 - 130				09/20/22 15:30	09/21/22 12:37	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78.2		4.98		mg/Kg			09/19/22 12:26	1

Client Sample ID: B-15-6'-091622

Lab Sample ID: 880-19347-4

Date Collected: 09/16/22 10:00

Matrix: Solid

Date Received: 09/16/22 15:45

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	779		49.9		mg/Kg			09/16/22 22:51	10

Client Sample ID: B-16-6'-091622

Lab Sample ID: 880-19347-5

Date Collected: 09/16/22 10:05

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/26/22 09:51	09/26/22 17:53	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/26/22 09:51	09/26/22 17:53	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/26/22 09:51	09/26/22 17:53	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/26/22 09:51	09/26/22 17:53	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/26/22 09:51	09/26/22 17:53	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/26/22 09:51	09/26/22 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130				09/26/22 09:51	09/26/22 17:53	1
1,4-Difluorobenzene (Surr)	80		70 - 130				09/26/22 09:51	09/26/22 17:53	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/22/22 10:29	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	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 12:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 12:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 12:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130				09/20/22 15:30	09/21/22 12:59	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-16-6'-091622

Lab Sample ID: 880-19347-5

Date Collected: 09/16/22 10:05

Matrix: Solid

Date Received: 09/16/22 15:45

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		70 - 130	09/20/22 15:30	09/21/22 12:59	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	557		5.04		mg/Kg			09/19/22 12:33	1

Client Sample ID: Sw-5-3'-091622

Lab Sample ID: 880-19347-6

Date Collected: 09/16/22 10:10

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 18:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 18:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 18:13	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/26/22 09:51	09/26/22 18:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 18:13	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/26/22 09:51	09/26/22 18:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130				09/26/22 09:51	09/26/22 18:13	1
1,4-Difluorobenzene (Surr)	88		70 - 130				09/26/22 09:51	09/26/22 18:13	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/22/22 10:29	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	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 13:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 13:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 13:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				09/20/22 15:30	09/21/22 13:20	1
o-Terphenyl	102		70 - 130				09/20/22 15:30	09/21/22 13:20	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	212		5.05		mg/Kg			09/19/22 12:41	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: Sw-6-3'-091622

Lab Sample ID: 880-19347-7

Date Collected: 09/16/22 10:15

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/30/22 07:58	09/30/22 10:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/30/22 07:58	09/30/22 10:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	09/30/22 07:58	09/30/22 10:44	1
1,4-Difluorobenzene (Surr)	87		70 - 130	09/30/22 07:58	09/30/22 10:44	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/22/22 10:29	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	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 13:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 13:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 13:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	09/20/22 15:30	09/21/22 13:42	1
o-Terphenyl	99		70 - 130	09/20/22 15:30	09/21/22 13:42	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	525		49.8		mg/Kg			09/16/22 23:29	10

Client Sample ID: Sw-7-3'-091622

Lab Sample ID: 880-19347-8

Date Collected: 09/16/22 10:20

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/27/22 16:49	09/28/22 09:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/27/22 16:49	09/28/22 09:47	1
Ethylbenzene	<0.00200	U *	0.00200		mg/Kg		09/27/22 16:49	09/28/22 09:47	1
m-Xylene & p-Xylene	<0.00399	U *	0.00399		mg/Kg		09/27/22 16:49	09/28/22 09:47	1
o-Xylene	<0.00200	U *	0.00200		mg/Kg		09/27/22 16:49	09/28/22 09:47	1
Xylenes, Total	<0.00399	U *	0.00399		mg/Kg		09/27/22 16:49	09/28/22 09:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130	09/27/22 16:49	09/28/22 09:47	1
1,4-Difluorobenzene (Surr)	86		70 - 130	09/27/22 16:49	09/28/22 09:47	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: Sw-7-3'-091622

Lab Sample ID: 880-19347-8

Date Collected: 09/16/22 10:20

Matrix: Solid

Date Received: 09/16/22 15:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			09/22/22 10:29	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	<49.8	U	49.8		mg/Kg		09/20/22 15:30	09/21/22 14:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/20/22 15:30	09/21/22 14:04	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/20/22 15:30	09/21/22 14:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				09/20/22 15:30	09/21/22 14:04	1
o-Terphenyl	101		70 - 130				09/20/22 15:30	09/21/22 14:04	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	235		4.96		mg/Kg			09/19/22 12:48	1

Client Sample ID: Sw-10-3'-091622

Lab Sample ID: 880-19347-9

Date Collected: 09/16/22 10:25

Matrix: Solid

Date Received: 09/16/22 15:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/27/22 16:49	09/28/22 10:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/27/22 16:49	09/28/22 10:08	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		09/27/22 16:49	09/28/22 10:08	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		09/27/22 16:49	09/28/22 10:08	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		09/27/22 16:49	09/28/22 10:08	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		09/27/22 16:49	09/28/22 10:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	159	S1+	70 - 130				09/27/22 16:49	09/28/22 10:08	1
1,4-Difluorobenzene (Surr)	100		70 - 130				09/27/22 16:49	09/28/22 10:08	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/27/22 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/22/22 10:29	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	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 14:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 14:25	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: Sw-10-3'-091622

Lab Sample ID: 880-19347-9

Date Collected: 09/16/22 10:25

Matrix: Solid

Date Received: 09/16/22 15:45

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)	<49.9	U	49.9		mg/Kg		09/20/22 15:30	09/21/22 14:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				09/20/22 15:30	09/21/22 14:25	1
o-Terphenyl	104		70 - 130				09/20/22 15:30	09/21/22 14:25	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	249		4.95		mg/Kg			09/19/22 12:56	1

Client Sample ID: B-17-4'-092022

Lab Sample ID: 880-19544-1

Date Collected: 09/20/22 12:00

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/29/22 11:39	10/02/22 18:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/29/22 11:39	10/02/22 18:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/29/22 11:39	10/02/22 18:13	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		09/29/22 11:39	10/02/22 18:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/29/22 11:39	10/02/22 18:13	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		09/29/22 11:39	10/02/22 18:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				09/29/22 11:39	10/02/22 18:13	1
1,4-Difluorobenzene (Surr)	103		70 - 130				09/29/22 11:39	10/02/22 18:13	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/26/22 13:43	09/27/22 13:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/26/22 13:43	09/27/22 13:31	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/26/22 13:43	09/27/22 13:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				09/26/22 13:43	09/27/22 13:31	1
o-Terphenyl	108		70 - 130				09/26/22 13:43	09/27/22 13:31	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	122		4.99		mg/Kg			09/23/22 11:00	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-18-4'-092022

Lab Sample ID: 880-19544-2

Date Collected: 09/20/22 12:30

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 18:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 18:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 18:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/29/22 11:39	10/02/22 18:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 18:33	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/29/22 11:39	10/02/22 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	09/29/22 11:39	10/02/22 18:33	1
1,4-Difluorobenzene (Surr)	101		70 - 130	09/29/22 11:39	10/02/22 18:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 13:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 13:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	09/26/22 13:43	09/27/22 13:52	1
o-Terphenyl	96		70 - 130	09/26/22 13:43	09/27/22 13:52	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61.7		4.99		mg/Kg			09/23/22 11:04	1

Client Sample ID: SW-12-2'-092022

Lab Sample ID: 880-19544-3

Date Collected: 09/20/22 12:45

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/29/22 11:39	10/02/22 18:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/29/22 11:39	10/02/22 18:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/29/22 11:39	10/02/22 18:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/29/22 11:39	10/02/22 18:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/29/22 11:39	10/02/22 18:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/29/22 11:39	10/02/22 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	09/29/22 11:39	10/02/22 18:54	1
1,4-Difluorobenzene (Surr)	102		70 - 130	09/29/22 11:39	10/02/22 18:54	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-12-2'-092022

Lab Sample ID: 880-19544-3

Date Collected: 09/20/22 12:45

Matrix: Solid

Date Received: 09/22/22 10:49

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 14:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 14:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 14:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				09/26/22 13:43	09/27/22 14:14	1
o-Terphenyl	121		70 - 130				09/26/22 13:43	09/27/22 14:14	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98.2		4.95		mg/Kg			09/23/22 11:09	1

Client Sample ID: B-25-6'-092122

Lab Sample ID: 880-19544-4

Date Collected: 09/21/22 11:00

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/03/22 13:34	10/04/22 04:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:33	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/03/22 13:34	10/04/22 04:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130				10/03/22 13:34	10/04/22 04:33	1
1,4-Difluorobenzene (Surr)	94		70 - 130				10/03/22 13:34	10/04/22 04:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 14:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 14:35	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-25-6'-092122

Lab Sample ID: 880-19544-4

Date Collected: 09/21/22 11:00

Matrix: Solid

Date Received: 09/22/22 10:49

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)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130				09/26/22 13:43	09/27/22 14:35	1
o-Terphenyl	91		70 - 130				09/26/22 13:43	09/27/22 14:35	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.4		5.01		mg/Kg			09/22/22 14:44	1

Client Sample ID: B-19-6'-092122

Lab Sample ID: 880-19544-5

Date Collected: 09/21/22 10:00

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/03/22 13:34	10/04/22 04:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/04/22 04:54	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/03/22 13:34	10/04/22 04:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130				10/03/22 13:34	10/04/22 04:54	1
1,4-Difluorobenzene (Surr)	101		70 - 130				10/03/22 13:34	10/04/22 04:54	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 14:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 14:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 14:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				09/26/22 13:43	09/27/22 14:57	1
o-Terphenyl	97		70 - 130				09/26/22 13:43	09/27/22 14:57	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	595		50.4		mg/Kg			09/22/22 14:49	10

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-21-5'-092122

Lab Sample ID: 880-19544-6

Date Collected: 09/21/22 10:10

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/04/22 10:40	10/05/22 03:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/04/22 10:40	10/05/22 03:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/04/22 10:40	10/05/22 03:09	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		10/04/22 10:40	10/05/22 03:09	1
o-Xylene	<0.00202	U *	0.00202		mg/Kg		10/04/22 10:40	10/05/22 03:09	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		10/04/22 10:40	10/05/22 03:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	10/04/22 10:40	10/05/22 03:09	1
1,4-Difluorobenzene (Surr)	81		70 - 130	10/04/22 10:40	10/05/22 03:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 15:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 15:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	09/26/22 13:43	09/27/22 15:18	1
o-Terphenyl	98		70 - 130	09/26/22 13:43	09/27/22 15:18	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.4		5.04		mg/Kg			09/22/22 14:54	1

Client Sample ID: B-22-6'-092122

Lab Sample ID: 880-19544-7

Date Collected: 09/21/22 10:15

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 03:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 03:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 03:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/04/22 10:40	10/05/22 03:29	1
o-Xylene	<0.00200	U *	0.00200		mg/Kg		10/04/22 10:40	10/05/22 03:29	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/04/22 10:40	10/05/22 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	151	S1+	70 - 130	10/04/22 10:40	10/05/22 03:29	1
1,4-Difluorobenzene (Surr)	80		70 - 130	10/04/22 10:40	10/05/22 03:29	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-22-6'-092122

Lab Sample ID: 880-19544-7

Date Collected: 09/21/22 10:15

Matrix: Solid

Date Received: 09/22/22 10:49

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 15:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 15:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 15:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130				09/26/22 13:43	09/27/22 15:39	1
o-Terphenyl	121		70 - 130				09/26/22 13:43	09/27/22 15:39	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	274		25.2		mg/Kg			09/22/22 14:59	5

Client Sample ID: B-23-5'-092122

Lab Sample ID: 880-19544-8

Date Collected: 09/21/22 10:20

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/04/22 10:40	10/05/22 03:50	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/04/22 10:40	10/05/22 03:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/04/22 10:40	10/05/22 03:50	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		10/04/22 10:40	10/05/22 03:50	1
o-Xylene	<0.00198	U *	0.00198		mg/Kg		10/04/22 10:40	10/05/22 03:50	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		10/04/22 10:40	10/05/22 03:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	151	S1+	70 - 130				10/04/22 10:40	10/05/22 03:50	1
1,4-Difluorobenzene (Surr)	78		70 - 130				10/04/22 10:40	10/05/22 03:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 16:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 16:00	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-23-5'-092122

Lab Sample ID: 880-19544-8

Date Collected: 09/21/22 10:20

Matrix: Solid

Date Received: 09/22/22 10:49

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)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 16:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130				09/26/22 13:43	09/27/22 16:00	1
o-Terphenyl	89		70 - 130				09/26/22 13:43	09/27/22 16:00	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	191		25.1		mg/Kg			09/22/22 15:04	5

Client Sample ID: B-24-5'-092122

Lab Sample ID: 880-19544-9

Date Collected: 09/21/22 10:30

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 04:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 04:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 04:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/04/22 10:40	10/05/22 04:10	1
o-Xylene	<0.00201	U **	0.00201		mg/Kg		10/04/22 10:40	10/05/22 04:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/04/22 10:40	10/05/22 04:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130				10/04/22 10:40	10/05/22 04:10	1
1,4-Difluorobenzene (Surr)	76		70 - 130				10/04/22 10:40	10/05/22 04:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 16:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 16:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 16:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130				09/26/22 13:43	09/27/22 16:22	1
o-Terphenyl	91		70 - 130				09/26/22 13:43	09/27/22 16:22	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	244		25.0		mg/Kg			09/22/22 15:18	5

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-11-3'-092122

Lab Sample ID: 880-19544-10

Date Collected: 09/21/22 11:10

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/04/22 10:40	10/05/22 04:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/04/22 10:40	10/05/22 04:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/04/22 10:40	10/05/22 04:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/04/22 10:40	10/05/22 04:31	1
o-Xylene	<0.00199	U *	0.00199		mg/Kg		10/04/22 10:40	10/05/22 04:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/04/22 10:40	10/05/22 04:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	10/04/22 10:40	10/05/22 04:31	1
1,4-Difluorobenzene (Surr)	89		70 - 130	10/04/22 10:40	10/05/22 04:31	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 17:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 17:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	09/26/22 13:43	09/27/22 17:04	1
o-Terphenyl	89		70 - 130	09/26/22 13:43	09/27/22 17:04	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	357		4.98		mg/Kg			09/23/22 11:14	1

Client Sample ID: SW-15-3'-092122

Lab Sample ID: 880-19544-11

Date Collected: 09/21/22 11:20

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 04:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/04/22 10:40	10/05/22 04:51	1
o-Xylene	<0.00200	U *	0.00200		mg/Kg		10/04/22 10:40	10/05/22 04:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/04/22 10:40	10/05/22 04:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	10/04/22 10:40	10/05/22 04:51	1
1,4-Difluorobenzene (Surr)	84		70 - 130	10/04/22 10:40	10/05/22 04:51	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-15-3'-092122

Lab Sample ID: 880-19544-11

Date Collected: 09/21/22 11:20

Matrix: Solid

Date Received: 09/22/22 10:49

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 17:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 17:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				09/26/22 13:43	09/27/22 17:25	1
o-Terphenyl	113		70 - 130				09/26/22 13:43	09/27/22 17:25	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	498		49.7		mg/Kg			09/22/22 15:38	10

Client Sample ID: B-2-4'-092122

Lab Sample ID: 880-19544-12

Date Collected: 09/21/22 09:00

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/04/22 10:40	10/05/22 05:12	1
o-Xylene	<0.00201	U *	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/04/22 10:40	10/05/22 05:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130				10/04/22 10:40	10/05/22 05:12	1
1,4-Difluorobenzene (Surr)	80		70 - 130				10/04/22 10:40	10/05/22 05:12	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 17:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 17:46	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-2-4'-092122

Lab Sample ID: 880-19544-12

Date Collected: 09/21/22 09:00

Matrix: Solid

Date Received: 09/22/22 10:49

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)	<49.9	U	49.9		mg/Kg		09/26/22 13:43	09/27/22 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				09/26/22 13:43	09/27/22 17:46	1
o-Terphenyl	106		70 - 130				09/26/22 13:43	09/27/22 17:46	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	178		24.8		mg/Kg			09/22/22 15:43	5

Client Sample ID: B-6-3.5'-092122

Lab Sample ID: 880-19544-13

Date Collected: 09/21/22 09:05

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/04/22 10:40	10/05/22 05:32	1
o-Xylene	<0.00201	U *	0.00201		mg/Kg		10/04/22 10:40	10/05/22 05:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/04/22 10:40	10/05/22 05:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130				10/04/22 10:40	10/05/22 05:32	1
1,4-Difluorobenzene (Surr)	84		70 - 130				10/04/22 10:40	10/05/22 05:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130				09/26/22 13:43	09/27/22 18:08	1
o-Terphenyl	89		70 - 130				09/26/22 13:43	09/27/22 18:08	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		5.03		mg/Kg			09/22/22 15:47	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-7-4'-092122

Lab Sample ID: 880-19544-14

Date Collected: 09/21/22 12:30

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/04/22 10:40	10/05/22 07:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/04/22 10:40	10/05/22 07:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/04/22 10:40	10/05/22 07:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/04/22 10:40	10/05/22 07:35	1
o-Xylene	<0.00199	U *	0.00199		mg/Kg		10/04/22 10:40	10/05/22 07:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/04/22 10:40	10/05/22 07:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	10/04/22 10:40	10/05/22 07:35	1
1,4-Difluorobenzene (Surr)	86		70 - 130	10/04/22 10:40	10/05/22 07:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	09/26/22 13:43	09/27/22 18:29	1
o-Terphenyl	133	S1+	70 - 130	09/26/22 13:43	09/27/22 18:29	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	415		24.9		mg/Kg			09/22/22 15:52	5

Client Sample ID: B-8-4'-092122

Lab Sample ID: 880-19544-15

Date Collected: 09/21/22 12:40

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 07:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 07:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 07:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/04/22 10:40	10/05/22 07:55	1
o-Xylene	<0.00200	U *	0.00200		mg/Kg		10/04/22 10:40	10/05/22 07:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/04/22 10:40	10/05/22 07:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	10/04/22 10:40	10/05/22 07:55	1
1,4-Difluorobenzene (Surr)	79		70 - 130	10/04/22 10:40	10/05/22 07:55	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-8-4'-092122

Lab Sample ID: 880-19544-15

Date Collected: 09/21/22 12:40

Matrix: Solid

Date Received: 09/22/22 10:49

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 18:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				09/26/22 13:43	09/27/22 18:50	1
o-Terphenyl	99		70 - 130				09/26/22 13:43	09/27/22 18:50	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	281		25.0		mg/Kg			09/22/22 15:57	5

Client Sample ID: B-15-7'-092122

Lab Sample ID: 880-19544-16

Date Collected: 09/21/22 12:50

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 08:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 08:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 08:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/04/22 10:40	10/05/22 08:16	1
o-Xylene	<0.00200	U *	0.00200		mg/Kg		10/04/22 10:40	10/05/22 08:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/04/22 10:40	10/05/22 08:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130				10/04/22 10:40	10/05/22 08:16	1
1,4-Difluorobenzene (Surr)	76		70 - 130				10/04/22 10:40	10/05/22 08:16	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 19:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 19:11	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-15-7'-092122

Lab Sample ID: 880-19544-16

Date Collected: 09/21/22 12:50

Matrix: Solid

Date Received: 09/22/22 10:49

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)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				09/26/22 13:43	09/27/22 19:11	1
o-Terphenyl	98		70 - 130				09/26/22 13:43	09/27/22 19:11	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	234		25.3		mg/Kg			09/22/22 16:02	5

Client Sample ID: B-20-4'-092122

Lab Sample ID: 880-19544-17

Date Collected: 09/21/22 13:30

Matrix: Solid

Date Received: 09/22/22 10:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/04/22 10:40	10/05/22 08:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/04/22 10:40	10/05/22 08:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/04/22 10:40	10/05/22 08:36	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		10/04/22 10:40	10/05/22 08:36	1
o-Xylene	<0.00202	U *	0.00202		mg/Kg		10/04/22 10:40	10/05/22 08:36	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		10/04/22 10:40	10/05/22 08:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130				10/04/22 10:40	10/05/22 08:36	1
1,4-Difluorobenzene (Surr)	78		70 - 130				10/04/22 10:40	10/05/22 08:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			10/03/22 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/28/22 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 19:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 19:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 19:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				09/26/22 13:43	09/27/22 19:33	1
o-Terphenyl	114		70 - 130				09/26/22 13:43	09/27/22 19:33	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	361		5.04		mg/Kg			09/23/22 11:19	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-8-3'-092222

Lab Sample ID: 880-19583-1

Date Collected: 09/22/22 12:00

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 10:26	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 10:26	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 10:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/04/22 13:34	10/05/22 10:26	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 10:26	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/04/22 13:34	10/05/22 10:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	10/04/22 13:34	10/05/22 10:26	1
1,4-Difluorobenzene (Surr)	89		70 - 130	10/04/22 13:34	10/05/22 10:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 03:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 03:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 03:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	09/23/22 13:45	09/25/22 03:38	1
o-Terphenyl	122		70 - 130	09/23/22 13:45	09/25/22 03:38	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.7		5.03		mg/Kg			09/23/22 12:21	1

Client Sample ID: SW-9-3'-092222

Lab Sample ID: 880-19583-2

Date Collected: 09/22/22 12:10

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:47	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/04/22 13:34	10/05/22 10:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:47	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/04/22 13:34	10/05/22 10:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	10/04/22 13:34	10/05/22 10:47	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/04/22 13:34	10/05/22 10:47	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-9-3'-092222

Lab Sample ID: 880-19583-2

Date Collected: 09/22/22 12:10

Matrix: Solid

Date Received: 09/23/22 10:15

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 03:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 03:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 03:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				09/23/22 13:45	09/25/22 03:59	1
o-Terphenyl	107		70 - 130				09/23/22 13:45	09/25/22 03:59	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	186		4.99		mg/Kg			09/23/22 12:35	1

Client Sample ID: SW-13-3'-092222

Lab Sample ID: 880-19583-3

Date Collected: 09/22/22 12:20

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/04/22 13:34	10/05/22 11:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/04/22 13:34	10/05/22 11:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/04/22 13:34	10/05/22 11:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		10/04/22 13:34	10/05/22 11:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		10/04/22 13:34	10/05/22 11:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		10/04/22 13:34	10/05/22 11:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130				10/04/22 13:34	10/05/22 11:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130				10/04/22 13:34	10/05/22 11:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 04:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 04:20	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-13-3'-092222

Lab Sample ID: 880-19583-3

Date Collected: 09/22/22 12:20

Matrix: Solid

Date Received: 09/23/22 10:15

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)	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 04:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				09/23/22 13:45	09/25/22 04:20	1
o-Terphenyl	119		70 - 130				09/23/22 13:45	09/25/22 04:20	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	148		5.02		mg/Kg			09/23/22 12:40	1

Client Sample ID: SW-14-3'-092222

Lab Sample ID: 880-19583-4

Date Collected: 09/22/22 12:30

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 11:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 11:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 11:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/04/22 13:34	10/05/22 11:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 11:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/04/22 13:34	10/05/22 11:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130				10/04/22 13:34	10/05/22 11:28	1
1,4-Difluorobenzene (Surr)	96		70 - 130				10/04/22 13:34	10/05/22 11:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 04:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 04:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 04:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				09/23/22 13:45	09/25/22 04:41	1
o-Terphenyl	99		70 - 130				09/23/22 13:45	09/25/22 04:41	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	225		5.04		mg/Kg			09/23/22 12:45	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-16-3'-092222

Lab Sample ID: 880-19583-5

Date Collected: 09/22/22 12:40

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 11:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 11:49	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 11:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/04/22 13:34	10/05/22 11:49	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 11:49	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/04/22 13:34	10/05/22 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	10/04/22 13:34	10/05/22 11:49	1
1,4-Difluorobenzene (Surr)	74		70 - 130	10/04/22 13:34	10/05/22 11:49	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 05:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 05:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/25/22 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	09/23/22 13:45	09/25/22 05:03	1
o-Terphenyl	123		70 - 130	09/23/22 13:45	09/25/22 05:03	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.8		4.97		mg/Kg			09/23/22 12:50	1

Client Sample ID: B-26-6'-092222

Lab Sample ID: 880-19583-6

Date Collected: 09/22/22 12:50

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/04/22 13:34	10/05/22 12:10	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/04/22 13:34	10/05/22 12:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/04/22 13:34	10/05/22 12:10	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		10/04/22 13:34	10/05/22 12:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		10/04/22 13:34	10/05/22 12:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		10/04/22 13:34	10/05/22 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/04/22 13:34	10/05/22 12:10	1
1,4-Difluorobenzene (Surr)	86		70 - 130	10/04/22 13:34	10/05/22 12:10	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-26-6'-092222

Lab Sample ID: 880-19583-6

Date Collected: 09/22/22 12:50

Matrix: Solid

Date Received: 09/23/22 10:15

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 05:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 05:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/23/22 13:45	09/25/22 05:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				09/23/22 13:45	09/25/22 05:24	1
o-Terphenyl	111		70 - 130				09/23/22 13:45	09/25/22 05:24	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		5.00		mg/Kg			09/23/22 13:04	1

Client Sample ID: B-27-6'-092222

Lab Sample ID: 880-19583-7

Date Collected: 09/22/22 13:00

Matrix: Solid

Date Received: 09/23/22 10:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 12:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 12:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 12:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/04/22 13:34	10/05/22 12:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/04/22 13:34	10/05/22 12:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/04/22 13:34	10/05/22 12:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130				10/04/22 13:34	10/05/22 12:30	1
1,4-Difluorobenzene (Surr)	91		70 - 130				10/04/22 13:34	10/05/22 12:30	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/05/22 15:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/26/22 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 15:10	09/27/22 01:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 15:10	09/27/22 01:29	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-27-6'-092222

Lab Sample ID: 880-19583-7

Date Collected: 09/22/22 13:00

Matrix: Solid

Date Received: 09/23/22 10:15

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)	<50.0	U	50.0		mg/Kg		09/26/22 15:10	09/27/22 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				09/26/22 15:10	09/27/22 01:29	1
o-Terphenyl	93		70 - 130				09/26/22 15:10	09/27/22 01:29	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.5		4.96		mg/Kg			09/23/22 13:09	1

Client Sample ID: SW-1-2-091422

Lab Sample ID: 890-2979-1

Date Collected: 09/14/22 14:00

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/22/22 10:27	09/22/22 23:16	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/22/22 10:27	09/22/22 23:16	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/22/22 10:27	09/22/22 23:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/22/22 10:27	09/22/22 23:16	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/22/22 10:27	09/22/22 23:16	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/22/22 10:27	09/22/22 23:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	155	S1+	70 - 130				09/22/22 10:27	09/22/22 23:16	1
1,4-Difluorobenzene (Surr)	113		70 - 130				09/22/22 10:27	09/22/22 23:16	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			09/19/22 15:34	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	<49.8	U	49.8		mg/Kg		09/20/22 11:59	09/20/22 22:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/20/22 11:59	09/20/22 22:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/20/22 11:59	09/20/22 22:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130				09/20/22 11:59	09/20/22 22:58	1
o-Terphenyl	98		70 - 130				09/20/22 11:59	09/20/22 22:58	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		50.5		mg/Kg			09/16/22 13:39	10

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-2-2-091422

Lab Sample ID: 890-2979-2

Date Collected: 09/14/22 14:05

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/19/22 10:02	09/19/22 16:14	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/19/22 10:02	09/19/22 16:14	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/19/22 10:02	09/19/22 16:14	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/19/22 10:02	09/19/22 16:14	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/19/22 10:02	09/19/22 16:14	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/19/22 10:02	09/19/22 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	09/19/22 10:02	09/19/22 16:14	1
1,4-Difluorobenzene (Surr)	94		70 - 130	09/19/22 10:02	09/19/22 16:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/19/22 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		09/16/22 11:40	09/18/22 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 14:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	09/16/22 11:40	09/18/22 14:06	1
o-Terphenyl	95		70 - 130	09/16/22 11:40	09/18/22 14:06	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	529		50.2		mg/Kg			09/16/22 13:44	10

Client Sample ID: SW-3-2-091422

Lab Sample ID: 890-2979-3

Date Collected: 09/14/22 14:10

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 16:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 16:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 16:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/19/22 10:02	09/19/22 16:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 16:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/19/22 10:02	09/19/22 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	09/19/22 10:02	09/19/22 16:35	1
1,4-Difluorobenzene (Surr)	89		70 - 130	09/19/22 10:02	09/19/22 16:35	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-3-2-091422

Lab Sample ID: 890-2979-3

Date Collected: 09/14/22 14:10

Matrix: Solid

Date Received: 09/15/22 12:48

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/19/22 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		09/16/22 11:40	09/18/22 14:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 14:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 14:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				09/16/22 11:40	09/18/22 14:28	1
o-Terphenyl	88		70 - 130				09/16/22 11:40	09/18/22 14:28	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		5.05		mg/Kg			09/16/22 13:58	1

Client Sample ID: B-2-3-091422

Lab Sample ID: 890-2979-4

Date Collected: 09/14/22 14:20

Matrix: Solid

Date Received: 09/15/22 12:48

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	604		49.6		mg/Kg			09/16/22 14:03	10

Client Sample ID: B-3-5-091422

Lab Sample ID: 890-2979-5

Date Collected: 09/14/22 14:30

Matrix: Solid

Date Received: 09/15/22 12:48

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	972		49.7		mg/Kg			09/16/22 14:08	10

Client Sample ID: B-4-5-091422

Lab Sample ID: 890-2979-6

Date Collected: 09/14/22 14:40

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 17:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 17:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 17:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/19/22 10:02	09/19/22 17:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 17:36	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/19/22 10:02	09/19/22 17:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130				09/19/22 10:02	09/19/22 17:36	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-4-5-091422

Lab Sample ID: 890-2979-6

Date Collected: 09/14/22 14:40

Matrix: Solid

Date Received: 09/15/22 12:48

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	09/19/22 10:02	09/19/22 17:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/19/22 15:34	1

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

Method 8160-8162 Rev. 1-2008 Range Organics (RO) (3)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/16/22 11:40	09/18/22 15:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/16/22 11:40	09/18/22 15:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/16/22 11:40	09/18/22 15:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				09/16/22 11:40	09/18/22 15:33	1
o-Terphenyl	88		70 - 130				09/16/22 11:40	09/18/22 15:33	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	407		5.00		mg/Kg			09/16/22 15:31	1

Client Sample ID: B-5-5-091422

Lab Sample ID: 890-2979-7

Date Collected: 09/14/22 14:50

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/19/22 10:02	09/19/22 17:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/19/22 10:02	09/19/22 17:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/19/22 10:02	09/19/22 17:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/19/22 10:02	09/19/22 17:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/19/22 10:02	09/19/22 17:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/19/22 10:02	09/19/22 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130				09/19/22 10:02	09/19/22 17:56	1
1,4-Difluorobenzene (Surr)	72		70 - 130				09/19/22 10:02	09/19/22 17:56	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/19/22 15:34	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-5-5-091422

Lab Sample ID: 890-2979-7

Date Collected: 09/14/22 14:50

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/16/22 11:40	09/18/22 15:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/16/22 11:40	09/18/22 15:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/16/22 11:40	09/18/22 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	09/16/22 11:40	09/18/22 15:55	1
o-Terphenyl	90		70 - 130	09/16/22 11:40	09/18/22 15:55	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	572		49.9		mg/Kg			09/16/22 14:18	10

Client Sample ID: B-6-3-091422

Lab Sample ID: 890-2979-8

Date Collected: 09/14/22 15:00

Matrix: Solid

Date Received: 09/15/22 12:48

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		49.5		mg/Kg			09/16/22 14:23	10

Client Sample ID: B-7-5-091422

Lab Sample ID: 890-2979-9

Date Collected: 09/14/22 15:10

Matrix: Solid

Date Received: 09/15/22 12:48

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	729		49.7		mg/Kg			09/16/22 14:37	10

Client Sample ID: B-8-5-091422

Lab Sample ID: 890-2979-10

Date Collected: 09/14/22 15:20

Matrix: Solid

Date Received: 09/15/22 12:48

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		49.9		mg/Kg			09/16/22 14:42	10

Client Sample ID: SW-4-2-091422

Lab Sample ID: 890-2979-11

Date Collected: 09/14/22 14:15

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/19/22 10:02	09/19/22 19:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/19/22 10:02	09/19/22 19:18	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/19/22 10:02	09/19/22 19:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/19/22 10:02	09/19/22 19:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/19/22 10:02	09/19/22 19:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/19/22 10:02	09/19/22 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	09/19/22 10:02	09/19/22 19:18	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-4-2-091422

Lab Sample ID: 890-2979-11

Date Collected: 09/14/22 14:15

Matrix: Solid

Date Received: 09/15/22 12:48

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	87		70 - 130	09/19/22 10:02	09/19/22 19:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/19/22 15:34	1

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

Method 8160-8162 Rev. 1-2008 Range Organics (RO) (CO)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		09/16/22 11:40	09/18/22 17:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 17:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				09/16/22 11:40	09/18/22 17:42	1
o-Terphenyl	91		70 - 130				09/16/22 11:40	09/18/22 17:42	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	289		25.0		mg/Kg			09/16/22 14:57	5

Client Sample ID: B-4-3.5-091422

Lab Sample ID: 890-2979-12

Date Collected: 09/15/22 11:00

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/23/22 08:21	09/23/22 14:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/23/22 08:21	09/23/22 14:27	1
Ethylbenzene	<0.00200	U *	0.00200		mg/Kg		09/23/22 08:21	09/23/22 14:27	1
m-Xylene & p-Xylene	<0.00399	U *	0.00399		mg/Kg		09/23/22 08:21	09/23/22 14:27	1
o-Xylene	<0.00200	U *	0.00200		mg/Kg		09/23/22 08:21	09/23/22 14:27	1
Xylenes, Total	<0.00399	U *	0.00399		mg/Kg		09/23/22 08:21	09/23/22 14:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	175	S1+	70 - 130				09/23/22 08:21	09/23/22 14:27	1
1,4-Difluorobenzene (Surr)	123		70 - 130				09/23/22 08:21	09/23/22 14:27	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/19/22 15:34	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-4-3.5-091422

Lab Sample ID: 890-2979-12

Date Collected: 09/15/22 11:00

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/20/22 11:59	09/20/22 23:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/20/22 11:59	09/20/22 23:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/20/22 11:59	09/20/22 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130				09/20/22 11:59	09/20/22 23:19	1
o-Terphenyl	111		70 - 130				09/20/22 11:59	09/20/22 23:19	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	524		50.2		mg/Kg			09/16/22 15:01	10

Client Sample ID: B-9-6-091522

Lab Sample ID: 890-2979-13

Date Collected: 09/15/22 11:05

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/23/22 08:21	09/23/22 14:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/23/22 08:21	09/23/22 14:47	1
Ethylbenzene	<0.00201	U **	0.00201		mg/Kg		09/23/22 08:21	09/23/22 14:47	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402		mg/Kg		09/23/22 08:21	09/23/22 14:47	1
o-Xylene	<0.00201	U **	0.00201		mg/Kg		09/23/22 08:21	09/23/22 14:47	1
Xylenes, Total	<0.00402	U **	0.00402		mg/Kg		09/23/22 08:21	09/23/22 14:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	174	S1+	70 - 130				09/23/22 08:21	09/23/22 14:47	1
1,4-Difluorobenzene (Surr)	116		70 - 130				09/23/22 08:21	09/23/22 14:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/19/22 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/20/22 23:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/20/22 23:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/20/22 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130				09/20/22 11:59	09/20/22 23:41	1
o-Terphenyl	98		70 - 130				09/20/22 11:59	09/20/22 23:41	1

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-9-6-091522

Lab Sample ID: 890-2979-13

Date Collected: 09/15/22 11:05

Matrix: Solid

Date Received: 09/15/22 12:48

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	181		5.05		mg/Kg			09/16/22 15:06	1

Client Sample ID: B-10-6-091522

Lab Sample ID: 890-2979-14

Date Collected: 09/15/22 11:10

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/22/22 15:35	09/24/22 02:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/22/22 15:35	09/24/22 02:18	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/22/22 15:35	09/24/22 02:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/22/22 15:35	09/24/22 02:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/22/22 15:35	09/24/22 02:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/22/22 15:35	09/24/22 02:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	09/22/22 15:35	09/24/22 02:18	1
1,4-Difluorobenzene (Surr)	93		70 - 130	09/22/22 15:35	09/24/22 02:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/19/22 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/21/22 00:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/21/22 00:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/21/22 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	09/20/22 11:59	09/21/22 00:02	1
o-Terphenyl	92		70 - 130	09/20/22 11:59	09/21/22 00:02	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		4.97		mg/Kg			09/16/22 15:35	1

Client Sample ID: B-11-6-091522

Lab Sample ID: 890-2979-15

Date Collected: 09/15/22 11:15

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/22/22 15:35	09/24/22 02:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/22/22 15:35	09/24/22 02:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/22/22 15:35	09/24/22 02:38	1

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-11-6-091522

Lab Sample ID: 890-2979-15

Date Collected: 09/15/22 11:15

Matrix: Solid

Date Received: 09/15/22 12:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/22/22 15:35	09/24/22 02:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/22/22 15:35	09/24/22 02:38	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/22/22 15:35	09/24/22 02:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				09/22/22 15:35	09/24/22 02:38	1
1,4-Difluorobenzene (Surr)	81		70 - 130				09/22/22 15:35	09/24/22 02:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			09/20/22 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/19/22 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/21/22 00:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/21/22 00:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/21/22 00:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				09/20/22 11:59	09/21/22 00:45	1
o-Terphenyl	105		70 - 130				09/20/22 11:59	09/21/22 00:45	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		4.96		mg/Kg			09/16/22 15:40	1

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Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-18965-A-1-G MS	Matrix Spike	113	106
880-18965-A-1-H MSD	Matrix Spike Duplicate	109	105
880-19347-1	B-12-6'-091522	118	92
880-19347-2	B-13-6'-091522	113	87
880-19347-3	B-14-6'-091522	111	84
880-19347-5	B-16-6'-091622	116	80
880-19347-6	Sw-5-3'-091622	114	88
880-19347-7	Sw-6-3'-091622	112	87
880-19347-7 MS	Sw-6-3'-091622	118	105
880-19347-7 MSD	Sw-6-3'-091622	133 S1+	102
880-19347-8	Sw-7-3'-091622	162 S1+	86
880-19347-9	Sw-10-3'-091622	159 S1+	100
880-19356-A-59-D MS	Matrix Spike	57 S1-	85
880-19356-A-59-E MSD	Matrix Spike Duplicate	93	67 S1-
880-19484-A-2-D MS	Matrix Spike	111	104
880-19484-A-2-E MSD	Matrix Spike Duplicate	113	103
880-19544-1	B-17-4'-092022	110	103
880-19544-2	B-18-4'-092022	110	101
880-19544-3	SW-12-2'-092022	110	102
880-19544-4	B-25-6'-092122	118	94
880-19544-5	B-19-6'-092122	127	101
880-19544-6	B-21-5'-092122	140 S1+	81
880-19544-6 MS	B-21-5'-092122	150 S1+	89
880-19544-6 MSD	B-21-5'-092122	129	105
880-19544-7	B-22-6'-092122	151 S1+	80
880-19544-8	B-23-5'-092122	151 S1+	78
880-19544-9	B-24-5'-092122	120	76
880-19544-10	SW-11-3'-092122	128	89
880-19544-11	SW-15-3'-092122	131 S1+	84
880-19544-12	B-2-4'-092122	129	80
880-19544-13	B-6-3.5'-092122	133 S1+	84
880-19544-14	B-7-4'-092122	127	86
880-19544-15	B-8-4'-092122	120	79
880-19544-16	B-15-7'-092122	119	76
880-19544-17	B-20-4'-092122	129	78
880-19583-1	SW-8-3'-092222	115	89
880-19583-1 MS	SW-8-3'-092222	97	105
880-19583-1 MSD	SW-8-3'-092222	93	93
880-19583-2	SW-9-3'-092222	123	104
880-19583-3	SW-13-3'-092222	131 S1+	98
880-19583-4	SW-14-3'-092222	125	96
880-19583-5	SW-16-3'-092222	120	74
880-19583-6	B-26-6'-092222	103	86
880-19583-7	B-27-6'-092222	126	91
880-19603-A-11-C MS	Matrix Spike	121	105
880-19603-A-11-D MSD	Matrix Spike Duplicate	112	107
890-2940-A-1-E MS	Matrix Spike	172 S1+	123
890-2940-A-1-F MSD	Matrix Spike Duplicate	173 S1+	142 S1+
890-2953-A-61-E MS	Matrix Spike	134 S1+	88

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Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2953-A-61-F MSD	Matrix Spike Duplicate	122	107
890-2979-1	SW-1-2-091422	155 S1+	113
890-2979-2	SW-2-2-091422	106	94
890-2979-3	SW-3-2-091422	109	89
890-2979-6	B-4-5-091422	112	94
890-2979-7	B-5-5-091422	102	72
890-2979-11	SW-4-2-091422	111	87
890-2979-12	B-4-3.5-091422	175 S1+	123
890-2979-13	B-9-6-091522	174 S1+	116
890-2979-14	B-10-6-091522	120	93
890-2979-15	B-11-6-091522	109	81
890-2998-A-1-C MS	Matrix Spike	126	122
890-2998-A-1-D MSD	Matrix Spike Duplicate	138 S1+	121
890-3026-A-1-D MS	Matrix Spike	93	96
890-3026-A-1-E MSD	Matrix Spike Duplicate	95	97
LCS 880-34801/1-A	Lab Control Sample	131 S1+	98
LCS 880-35092/1-A	Lab Control Sample	138 S1+	126
LCS 880-35157/1-A	Lab Control Sample	136 S1+	117
LCS 880-35198/1-A	Lab Control Sample	120	109
LCS 880-35209/1-A	Lab Control Sample	169 S1+	120
LCS 880-35366/1-A	Lab Control Sample	54 S1-	107
LCS 880-35691/1-A	Lab Control Sample	53 S1-	98
LCS 880-35745/1-A	Lab Control Sample	120	102
LCS 880-35997/1-A	Lab Control Sample	88	96
LCS 880-36054/1-A	Lab Control Sample	148 S1+	99
LCS 880-36058/1-A	Lab Control Sample	93	95
LCSD 880-34801/2-A	Lab Control Sample Dup	128	97
LCSD 880-35092/2-A	Lab Control Sample Dup	166 S1+	136 S1+
LCSD 880-35157/2-A	Lab Control Sample Dup	127	114
LCSD 880-35198/2-A	Lab Control Sample Dup	117	107
LCSD 880-35209/2-A	Lab Control Sample Dup	141 S1+	117
LCSD 880-35366/2-A	Lab Control Sample Dup	113	102
LCSD 880-35691/2-A	Lab Control Sample Dup	110	99
LCSD 880-35745/2-A	Lab Control Sample Dup	128	95
LCSD 880-35997/2-A	Lab Control Sample Dup	89	97
LCSD 880-36054/2-A	Lab Control Sample Dup	136 S1+	105
LCSD 880-36058/2-A	Lab Control Sample Dup	95	104
MB 880-34801/5-A	Method Blank	104	84
MB 880-35092/5-A	Method Blank	121	113
MB 880-35106/5-A	Method Blank	100	82
MB 880-35157/5-A	Method Blank	110	108
MB 880-35198/5-A	Method Blank	98	78
MB 880-35204/5-A	Method Blank	134 S1+	92
MB 880-35209/5-A	Method Blank	131 S1+	90
MB 880-35366/5-A	Method Blank	103	90
MB 880-35625/5-A	Method Blank	101	114
MB 880-35691/5-A	Method Blank	102	110
MB 880-35745/5-A	Method Blank	104	87
MB 880-35997/5-A	Method Blank	94	85
MB 880-36054/5-A	Method Blank	115	87

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Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
MB 880-36057/8	Method Blank	110	87
MB 880-36058/5-A	Method Blank	93	84
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-19347-1	B-12-6'-091522	78	87
880-19347-1 MS	B-12-6'-091522	89	86
880-19347-1 MSD	B-12-6'-091522	81	82
880-19347-2	B-13-6'-091522	83	92
880-19347-3	B-14-6'-091522	89	99
880-19347-5	B-16-6'-091622	80	87
880-19347-6	Sw-5-3'-091622	88	102
880-19347-7	Sw-6-3'-091622	86	99
880-19347-8	Sw-7-3'-091622	88	101
880-19347-9	Sw-10-3'-091622	92	104
880-19544-1	B-17-4'-092022	96	108
880-19544-2	B-18-4'-092022	84	96
880-19544-3	SW-12-2'-092022	108	121
880-19544-4	B-25-6'-092122	83	91
880-19544-5	B-19-6'-092122	87	97
880-19544-6	B-21-5'-092122	89	98
880-19544-7	B-22-6'-092122	114	121
880-19544-8	B-23-5'-092122	79	89
880-19544-9	B-24-5'-092122	83	91
880-19544-10	SW-11-3'-092122	83	89
880-19544-11	SW-15-3'-092122	99	113
880-19544-12	B-2-4'-092122	95	106
880-19544-13	B-6-3.5'-092122	84	89
880-19544-14	B-7-4'-092122	121	133 S1+
880-19544-15	B-8-4'-092122	89	99
880-19544-16	B-15-7'-092122	88	98
880-19544-17	B-20-4'-092122	102	114
880-19583-1	SW-8-3'-092222	117	122
880-19583-2	SW-9-3'-092222	101	107
880-19583-3	SW-13-3'-092222	112	119
880-19583-4	SW-14-3'-092222	98	99
880-19583-5	SW-16-3'-092222	118	123
880-19583-6	B-26-6'-092222	105	111
880-19583-7	B-27-6'-092222	85	93
890-2971-A-1-C MS	Matrix Spike	87	77
890-2971-A-1-D MSD	Matrix Spike Duplicate	85	77
890-2979-1	SW-1-2-091422	111	98
890-2979-2	SW-2-2-091422	92	95

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Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2979-3	SW-3-2-091422	90	88
890-2979-6	B-4-5-091422	86	88
890-2979-7	B-5-5-091422	89	90
890-2979-11	SW-4-2-091422	90	91
890-2979-12	B-4-3-5-091422	125	111
890-2979-13	B-9-6-091522	115	98
890-2979-14	B-10-6-091522	110	92
890-2979-15	B-11-6-091522	127	105
890-2999-A-1-E MS	Matrix Spike	109	81
890-2999-A-1-F MSD	Matrix Spike Duplicate	115	79
890-3030-A-21-C MS	Matrix Spike	96	91
890-3030-A-21-D MSD	Matrix Spike Duplicate	97	91
890-3035-A-21-C MS	Matrix Spike	80	81
890-3035-A-21-D MSD	Matrix Spike Duplicate	93	89
890-3038-A-1-C MS	Matrix Spike	95	90
890-3038-A-1-D MSD	Matrix Spike Duplicate	107	99
LCS 880-34673/2-A	Lab Control Sample	82	90
LCS 880-34938/2-A	Lab Control Sample	114	105
LCS 880-34983/2-A	Lab Control Sample	174 S1+	196 S1+
LCS 880-35279/2-A	Lab Control Sample	94	92
LCS 880-35419/2-A	Lab Control Sample	101	109
LCS 880-35422/2-A	Lab Control Sample	133 S1+	143 S1+
LCSD 880-34673/3-A	Lab Control Sample Dup	86	93
LCSD 880-34938/3-A	Lab Control Sample Dup	129	90
LCSD 880-34983/3-A	Lab Control Sample Dup	177 S1+	203 S1+
LCSD 880-35279/3-A	Lab Control Sample Dup	95	98
LCSD 880-35419/3-A	Lab Control Sample Dup	114	127
LCSD 880-35422/3-A	Lab Control Sample Dup	134 S1+	145 S1+
MB 880-34673/1-A	Method Blank	113	122
MB 880-34938/1-A	Method Blank	118	111
MB 880-34983/1-A	Method Blank	85	100
MB 880-35279/1-A	Method Blank	127	138 S1+
MB 880-35419/1-A	Method Blank	95	105
MB 880-35422/1-A	Method Blank	99	106

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34801/5-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34801

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/19/22 10:02	09/19/22 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/19/22 10:02	09/19/22 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/19/22 10:02	09/19/22 11:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	09/19/22 10:02	09/19/22 11:26	1
1,4-Difluorobenzene (Surr)	84		70 - 130	09/19/22 10:02	09/19/22 11:26	1

Lab Sample ID: LCS 880-34801/1-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08639		mg/Kg		86	70 - 130
Toluene	0.100	0.08783		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.09574		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.2089		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1183		mg/Kg		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-34801/2-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08424		mg/Kg		84	70 - 130	3	35
Toluene	0.100	0.08924		mg/Kg		89	70 - 130	2	35
Ethylbenzene	0.100	0.09986		mg/Kg		100	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2198		mg/Kg		110	70 - 130	5	35
o-Xylene	0.100	0.1256		mg/Kg		126	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-18965-A-1-G MS

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.09703		mg/Kg		97	70 - 130
Toluene	<0.00199	U	0.0998	0.09095		mg/Kg		91	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 880-18965-A-1-G MS

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.09396		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1947		mg/Kg		98	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1099		mg/Kg		110	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-18965-A-1-H MSD

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00199	U	0.0996	0.08949		mg/Kg		90	70 - 130	8	35
Toluene	<0.00199	U	0.0996	0.08282		mg/Kg		83	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.0996	0.08351		mg/Kg		84	70 - 130	12	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1723		mg/Kg		86	70 - 130	12	35
o-Xylene	<0.00199	U	0.0996	0.09731		mg/Kg		98	70 - 130	12	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-35092/5-A

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:19	09/23/22 11:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:19	09/23/22 11:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:19	09/23/22 11:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/21/22 15:19	09/23/22 11:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:19	09/23/22 11:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/21/22 15:19	09/23/22 11:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	09/21/22 15:19	09/23/22 11:20	1
1,4-Difluorobenzene (Surr)	113		70 - 130	09/21/22 15:19	09/23/22 11:20	1

Lab Sample ID: LCS 880-35092/1-A

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09803		mg/Kg		98	70 - 130
Toluene	0.100	0.09879		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1144		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	0.200	0.2610	*+	mg/Kg		131	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-35092/1-A

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1269		mg/Kg		127	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	126		70 - 130

Lab Sample ID: LCSD 880-35092/2-A

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35092

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1127		mg/Kg		113	70 - 130	14	35
Toluene	0.100	0.1105		mg/Kg		110	70 - 130	11	35
Ethylbenzene	0.100	0.1355	*+	mg/Kg		136	70 - 130	17	35
m-Xylene & p-Xylene	0.200	0.3060	*+	mg/Kg		153	70 - 130	16	35
o-Xylene	0.100	0.1482	*+	mg/Kg		148	70 - 130	16	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	166	S1+	70 - 130
1,4-Difluorobenzene (Surr)	136	S1+	70 - 130

Lab Sample ID: 890-2940-A-1-E MS

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35092

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F2 F1	0.101	<0.00202	U F1	mg/Kg		0.8	70 - 130
Toluene	<0.00202	U F2 F1	0.101	0.003123	F1	mg/Kg		3	70 - 130
Ethylbenzene	<0.00202	U *+ F2 F1	0.101	0.003518	F1	mg/Kg		3	70 - 130
m-Xylene & p-Xylene	<0.00403	U *+ F2 F1	0.202	0.007024	F1	mg/Kg		3	70 - 130
o-Xylene	<0.00202	U *+ F2 F1	0.101	0.005178	F1	mg/Kg		5	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	172	S1+	70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: 890-2940-A-1-F MSD

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U F2 F1	0.0996	0.02824	F2 F1	mg/Kg		28	70 - 130	188	35
Toluene	<0.00202	U F2 F1	0.0996	0.03493	F2 F1	mg/Kg		35	70 - 130	167	35
Ethylbenzene	<0.00202	U *+ F2 F1	0.0996	0.04667	F2 F1	mg/Kg		47	70 - 130	172	35

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 890-2940-A-1-F MSD

Matrix: Solid

Analysis Batch: 35226

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	<0.00403	U *+ F2 F1	0.199	0.1134	F2 F1	mg/Kg		57	70 - 130	177	35
o-Xylene	<0.00202	U *+ F2 F1	0.0996	0.06160	F2 F1	mg/Kg		62	70 - 130	169	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	173	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	142	S1+	70 - 130								

Lab Sample ID: MB 880-35106/5-A

Matrix: Solid

Analysis Batch: 35227

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35106

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:42	09/23/22 10:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:42	09/23/22 10:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:42	09/23/22 10:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/21/22 15:42	09/23/22 10:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/21/22 15:42	09/23/22 10:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/21/22 15:42	09/23/22 10:54	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				09/21/22 15:42	09/23/22 10:54	1
1,4-Difluorobenzene (Surr)	82		70 - 130				09/21/22 15:42	09/23/22 10:54	1

Lab Sample ID: MB 880-35157/5-A

Matrix: Solid

Analysis Batch: 35151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/22 10:27	09/22/22 15:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/22 10:27	09/22/22 15:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				09/22/22 10:27	09/22/22 15:59	1
1,4-Difluorobenzene (Surr)	108		70 - 130				09/22/22 10:27	09/22/22 15:59	1

Lab Sample ID: LCS 880-35157/1-A

Matrix: Solid

Analysis Batch: 35151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1010		mg/Kg		101	70 - 130
Toluene	0.100	0.09728		mg/Kg		97	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-35157/1-A

Matrix: Solid

Analysis Batch: 35151

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.100	0.1069		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2437		mg/Kg		122	70 - 130
o-Xylene	0.100	0.1191		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-35157/2-A

Matrix: Solid

Analysis Batch: 35151

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35157

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.09002		mg/Kg		90	70 - 130	11	35
Toluene	0.100	0.09451		mg/Kg		95	70 - 130	3	35
Ethylbenzene	0.100	0.1038		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2295		mg/Kg		115	70 - 130	6	35
o-Xylene	0.100	0.1105		mg/Kg		111	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: 890-2998-A-1-C MS

Matrix: Solid

Analysis Batch: 35151

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.09601		mg/Kg		96	70 - 130
Toluene	<0.00200	U	0.0998	0.08061		mg/Kg		81	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.08856		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1986		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09612		mg/Kg		96	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	126		70 - 130
1,4-Difluorobenzene (Surr)	122		70 - 130

Lab Sample ID: 890-2998-A-1-D MSD

Matrix: Solid

Analysis Batch: 35151

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U	0.100	0.09474		mg/Kg		94	70 - 130	1	35
Toluene	<0.00200	U	0.100	0.09384		mg/Kg		93	70 - 130	15	35
Ethylbenzene	<0.00200	U	0.100	0.1035		mg/Kg		103	70 - 130	16	35
m-Xylene & p-Xylene	<0.00401	U	0.201	0.2299		mg/Kg		114	70 - 130	15	35
o-Xylene	<0.00200	U	0.100	0.1098		mg/Kg		109	70 - 130	13	35

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	121		70 - 130

Lab Sample ID: MB 880-35198/5-A

Matrix: Solid

Analysis Batch: 35227

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/22 15:35	09/23/22 21:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/22 15:35	09/23/22 21:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/22 15:35	09/23/22 21:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/22 15:35	09/23/22 21:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/22 15:35	09/23/22 21:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/22 15:35	09/23/22 21:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	09/22/22 15:35	09/23/22 21:29	1
1,4-Difluorobenzene (Surr)	78		70 - 130	09/22/22 15:35	09/23/22 21:29	1

Lab Sample ID: LCS 880-35198/1-A

Matrix: Solid

Analysis Batch: 35227

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09191		mg/Kg		92	70 - 130
Toluene	0.100	0.08545		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.09090		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1922		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1086		mg/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-35198/2-A

Matrix: Solid

Analysis Batch: 35227

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35198

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08728		mg/Kg		87	70 - 130	5	35
Toluene	0.100	0.08104		mg/Kg		81	70 - 130	5	35
Ethylbenzene	0.100	0.08609		mg/Kg		86	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1778		mg/Kg		89	70 - 130	8	35
o-Xylene	0.100	0.1069		mg/Kg		107	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 890-2953-A-61-E MS

Matrix: Solid

Analysis Batch: 35227

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35198

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F2 F1	0.100	0.03739	F1	mg/Kg		37	70 - 130
Toluene	<0.00201	U F2 F1	0.100	0.04389	F1	mg/Kg		44	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.100	0.05197	F1	mg/Kg		52	70 - 130
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.201	0.09854	F1	mg/Kg		49	70 - 130
o-Xylene	<0.00201	U F2 F1	0.100	0.05897	F1	mg/Kg		59	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 890-2953-A-61-F MSD

Matrix: Solid

Analysis Batch: 35227

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35198

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F2 F1	0.0990	0.06926	F2	mg/Kg		70	70 - 130	60	35
Toluene	<0.00201	U F2 F1	0.0990	0.06230	F1	mg/Kg		63	70 - 130	35	35
Ethylbenzene	<0.00201	U F2 F1	0.0990	0.06203	F1	mg/Kg		63	70 - 130	18	35
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.198	0.1235	F1	mg/Kg		62	70 - 130	22	35
o-Xylene	<0.00201	U F2 F1	0.0990	0.07774		mg/Kg		79	70 - 130	27	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: MB 880-35204/5-A

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35204

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/22/22 16:31	09/27/22 12:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/22/22 16:31	09/27/22 12:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/22/22 16:31	09/27/22 12:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/22/22 16:31	09/27/22 12:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/22/22 16:31	09/27/22 12:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/22/22 16:31	09/27/22 12:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130	09/22/22 16:31	09/27/22 12:34	1
1,4-Difluorobenzene (Surr)	92		70 - 130	09/22/22 16:31	09/27/22 12:34	1

Lab Sample ID: MB 880-35209/5-A

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/27/22 16:49	09/28/22 02:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/27/22 16:49	09/28/22 02:09	1

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: MB 880-35209/5-A

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/27/22 16:49	09/28/22 02:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/27/22 16:49	09/28/22 02:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/27/22 16:49	09/28/22 02:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/27/22 16:49	09/28/22 02:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	09/27/22 16:49	09/28/22 02:09	1
1,4-Difluorobenzene (Surr)	90		70 - 130	09/27/22 16:49	09/28/22 02:09	1

Lab Sample ID: LCS 880-35209/1-A

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09611		mg/Kg		96	70 - 130
Toluene	0.100	0.1132		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1339	*+	mg/Kg		134	70 - 130
m-Xylene & p-Xylene	0.200	0.2990	*+	mg/Kg		149	70 - 130
o-Xylene	0.100	0.1476	*+	mg/Kg		148	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	169	S1+	70 - 130
1,4-Difluorobenzene (Surr)	120		70 - 130

Lab Sample ID: LCSD 880-35209/2-A

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35209

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	11	35
Toluene	0.100	0.1055		mg/Kg		105	70 - 130	7	35
Ethylbenzene	0.100	0.1148		mg/Kg		115	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.2476		mg/Kg		124	70 - 130	19	35
o-Xylene	0.100	0.1223		mg/Kg		122	70 - 130	19	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130
1,4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: 880-19356-A-59-D MS

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35209

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.100	0.02244	F1	mg/Kg		22	70 - 130
Toluene	<0.00201	U F1	0.100	0.03548	F1	mg/Kg		35	70 - 130
Ethylbenzene	<0.00201	U *+ F1 F2	0.100	0.03180	F1	mg/Kg		32	70 - 130

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 880-19356-A-59-D MS

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35209

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
m-Xylene & p-Xylene	<0.00402	U *+ F1 F2	0.201	0.05059	F1	mg/Kg		25	70 - 130		
o-Xylene	<0.00201	U *+ F1 F2	0.100	0.02538	F1	mg/Kg		25	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	MS Limits								
4-Bromofluorobenzene (Surr)	57	S1-	70 - 130								
1,4-Difluorobenzene (Surr)	85		70 - 130								

Lab Sample ID: 880-19356-A-59-E MSD

Matrix: Solid

Analysis Batch: 35466

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35209

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.02540	F1	mg/Kg		26	70 - 130	12	35
Toluene	<0.00201	U F1	0.0990	0.04509	F1	mg/Kg		46	70 - 130	24	35
Ethylbenzene	<0.00201	U *+ F1	0.0990	0.05413	F1 F2	mg/Kg		55	70 - 130	52	35
		F2									
m-Xylene & p-Xylene	<0.00402	U *+ F1	0.198	0.09179	F1 F2	mg/Kg		46	70 - 130	58	35
		F2									
o-Xylene	<0.00201	U *+ F1	0.0990	0.04466	F1 F2	mg/Kg		45	70 - 130	55	35
		F2									
				</							

Lab Sample ID: MB 880-35366/5-A

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35366

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 12:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 12:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 12:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/26/22 09:51	09/26/22 12:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 09:51	09/26/22 12:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/26/22 09:51	09/26/22 12:02	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				09/26/22 09:51	09/26/22 12:02	1
1,4-Difluorobenzene (Surr)	90		70 - 130				09/26/22 09:51	09/26/22 12:02	1

Lab Sample ID: LCS 880-35366/1-A

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08654		mg/Kg		87	70 - 130

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-35366/1-A

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.100	0.07683		mg/Kg		77	70 - 130
Ethylbenzene	0.100	0.08077		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	0.200	0.1625		mg/Kg		81	70 - 130
o-Xylene	0.100	0.09508		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	54	S1-	70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-35366/2-A

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35366

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08700		mg/Kg		87	70 - 130	1	35
Toluene	0.100	0.07978		mg/Kg		80	70 - 130	4	35
Ethylbenzene	0.100	0.08153		mg/Kg		82	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1700		mg/Kg		85	70 - 130	4	35
o-Xylene	0.100	0.09609		mg/Kg		96	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-19603-A-11-C MS

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0996	0.08414		mg/Kg		84	70 - 130
Toluene	0.00397		0.0996	0.07679		mg/Kg		73	70 - 130
Ethylbenzene	0.00425		0.0996	0.08055		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	0.0104		0.199	0.1673		mg/Kg		79	70 - 130
o-Xylene	0.00695		0.0996	0.09689		mg/Kg		90	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-19603-A-11-D MSD

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.09011		mg/Kg		90	70 - 130	7	35
Toluene	0.00397		0.0996	0.08333		mg/Kg		80	70 - 130	8	35
Ethylbenzene	0.00425		0.0996	0.08490		mg/Kg		81	70 - 130	5	35
m-Xylene & p-Xylene	0.0104		0.199	0.1756		mg/Kg		83	70 - 130	5	35

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 880-19603-A-11-D MSD

Matrix: Solid

Analysis Batch: 35357

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
o-Xylene	0.00695		0.0996	0.09962		mg/Kg		93	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: MB 880-35625/5-A

Matrix: Solid

Analysis Batch: 35815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/28/22 16:17	10/01/22 20:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/22 16:17	10/01/22 20:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/22 16:17	10/01/22 20:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/28/22 16:17	10/01/22 20:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/22 16:17	10/01/22 20:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/28/22 16:17	10/01/22 20:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	09/28/22 16:17	10/01/22 20:00	1
1,4-Difluorobenzene (Surr)	114		70 - 130	09/28/22 16:17	10/01/22 20:00	1

Lab Sample ID: MB 880-35691/5-A

Matrix: Solid

Analysis Batch: 35815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 07:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 07:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 07:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/29/22 11:39	10/02/22 07:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/29/22 11:39	10/02/22 07:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/29/22 11:39	10/02/22 07:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	09/29/22 11:39	10/02/22 07:34	1
1,4-Difluorobenzene (Surr)	110		70 - 130	09/29/22 11:39	10/02/22 07:34	1

Lab Sample ID: LCS 880-35691/1-A

Matrix: Solid

Analysis Batch: 35815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08186		mg/Kg		82	70 - 130
Toluene	0.100	0.09542		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.09413		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1957		mg/Kg		98	70 - 130
o-Xylene	0.100	0.09866		mg/Kg		99	70 - 130

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	53	S1-	70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-35691/2-A

Matrix: Solid

Analysis Batch: 35815

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35691

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08734		mg/Kg		87	70 - 130	6	35
Toluene	0.100	0.1003		mg/Kg		100	70 - 130	5	35
Ethylbenzene	0.100	0.1020		mg/Kg		102	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2095		mg/Kg		105	70 - 130	7	35
o-Xylene	0.100	0.1034		mg/Kg		103	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-19484-A-2-D MS

Matrix: Solid

Analysis Batch: 35815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.100	0.09814		mg/Kg		98	70 - 130
Toluene	<0.00202	U	0.100	0.09964		mg/Kg		99	70 - 130
Ethylbenzene	<0.00202	U	0.100	0.09225		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.201	0.1864		mg/Kg		93	70 - 130
o-Xylene	<0.00202	U	0.100	0.09164		mg/Kg		91	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-19484-A-2-E MSD

Matrix: Solid

Analysis Batch: 35815

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.09388		mg/Kg		95	70 - 130	4	35
Toluene	<0.00202	U	0.0990	0.09999		mg/Kg		101	70 - 130	0	35
Ethylbenzene	<0.00202	U	0.0990	0.08740		mg/Kg		88	70 - 130	5	35
m-Xylene & p-Xylene	<0.00404	U	0.198	0.1766		mg/Kg		89	70 - 130	5	35
o-Xylene	<0.00202	U	0.0990	0.08676		mg/Kg		88	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: MB 880-35745/5-A

Matrix: Solid

Analysis Batch: 35744

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:23	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/30/22 07:58	09/30/22 10:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/30/22 07:58	09/30/22 10:23	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/30/22 07:58	09/30/22 10:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	09/30/22 07:58	09/30/22 10:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	09/30/22 07:58	09/30/22 10:23	1

Lab Sample ID: LCS 880-35745/1-A

Matrix: Solid

Analysis Batch: 35744

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08346		mg/Kg		83	70 - 130
Toluene	0.100	0.07921		mg/Kg		79	70 - 130
Ethylbenzene	0.100	0.08765		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1803		mg/Kg		90	70 - 130
o-Xylene	0.100	0.1018		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-35745/2-A

Matrix: Solid

Analysis Batch: 35744

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35745

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07504		mg/Kg		75	70 - 130	11	35
Toluene	0.100	0.08078		mg/Kg		81	70 - 130	2	35
Ethylbenzene	0.100	0.08938		mg/Kg		89	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1897		mg/Kg		95	70 - 130	5	35
o-Xylene	0.100	0.1078		mg/Kg		108	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-19347-7 MS

Matrix: Solid

Analysis Batch: 35744

Client Sample ID: Sw-6-3'-091622

Prep Type: Total/NA

Prep Batch: 35745

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.08818		mg/Kg		88	70 - 130
Toluene	<0.00200	U	0.0998	0.08271		mg/Kg		83	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 880-19347-7 MS

Matrix: Solid

Analysis Batch: 35744

Client Sample ID: Sw-6-3'-091622

Prep Type: Total/NA

Prep Batch: 35745

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.08821		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1806		mg/Kg		90	70 - 130
o-Xylene	<0.00200	U	0.0998	0.1019		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-19347-7 MSD

Matrix: Solid

Analysis Batch: 35744

Client Sample ID: Sw-6-3'-091622

Prep Type: Total/NA

Prep Batch: 35745

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.08390		mg/Kg		84	70 - 130	5	35
Toluene	<0.00200	U	0.0996	0.08269		mg/Kg		83	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.09357		mg/Kg		94	70 - 130	6	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1984		mg/Kg		100	70 - 130	9	35
o-Xylene	<0.00200	U	0.0996	0.1133		mg/Kg		114	70 - 130	11	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-35997/5-A

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/03/22 22:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/03/22 22:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/03/22 22:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/03/22 13:34	10/03/22 22:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/03/22 13:34	10/03/22 22:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/03/22 13:34	10/03/22 22:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/03/22 13:34	10/03/22 22:00	1
1,4-Difluorobenzene (Surr)	85		70 - 130	10/03/22 13:34	10/03/22 22:00	1

Lab Sample ID: LCS 880-35997/1-A

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1071		mg/Kg		107	70 - 130
Toluene	0.100	0.1071		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.09944		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2049		mg/Kg		102	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-35997/1-A

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-35997/2-A

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35997

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	0	35
Toluene	0.100	0.1073		mg/Kg		107	70 - 130	0	35
Ethylbenzene	0.100	0.09953		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2078		mg/Kg		104	70 - 130	1	35
o-Xylene	0.100	0.1051		mg/Kg		105	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-3026-A-1-D MS

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0998	0.09738		mg/Kg		98	70 - 130
Toluene	<0.00201	U	0.0998	0.1003		mg/Kg		100	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.09562		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1967		mg/Kg		99	70 - 130
o-Xylene	<0.00201	U	0.0998	0.1000		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-3026-A-1-E MSD

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00201	U	0.100	0.09537		mg/Kg		95	70 - 130	2	35
Toluene	<0.00201	U	0.100	0.09776		mg/Kg		98	70 - 130	3	35
Ethylbenzene	<0.00201	U	0.100	0.09210		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1922		mg/Kg		96	70 - 130	2	35
o-Xylene	<0.00201	U	0.100	0.09755		mg/Kg		97	70 - 130	3	35

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 890-3026-A-1-E MSD

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35997

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: MB 880-36054/5-A

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36054

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 02:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 02:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 02:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/04/22 10:40	10/05/22 02:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/04/22 10:40	10/05/22 02:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/04/22 10:40	10/05/22 02:47	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	115		70 - 130	10/04/22 10:40	10/05/22 02:47	1			
1,4-Difluorobenzene (Surr)	87		70 - 130	10/04/22 10:40	10/05/22 02:47	1			

Lab Sample ID: LCS 880-36054/1-A

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36054

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
Benzene	0.100	0.1005		mg/Kg		101		70 - 130	
Toluene	0.100	0.09908		mg/Kg		99		70 - 130	
Ethylbenzene	0.100	0.1121		mg/Kg		112		70 - 130	
m-Xylene & p-Xylene	0.200	0.2392		mg/Kg		120		70 - 130	
o-Xylene	0.100	0.1396	*+	mg/Kg		140		70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	148	S1+	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-36054/2-A

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36054

Analyte	Spike	LCSD	LCSD							
	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09127		mg/Kg		91		70 - 130	10	35
Toluene	0.100	0.08286		mg/Kg		83		70 - 130	18	35
Ethylbenzene	0.100	0.08919		mg/Kg		89		70 - 130	23	35
m-Xylene & p-Xylene	0.200	0.1822		mg/Kg		91		70 - 130	27	35
o-Xylene	0.100	0.1078		mg/Kg		108		70 - 130	26	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCSD 880-36054/2-A

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36054

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

Lab Sample ID: 880-19544-6 MS

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: B-21-5'-092122

Prep Type: Total/NA

Prep Batch: 36054

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.08860		mg/Kg		88	70 - 130
Toluene	<0.00202	U	0.101	0.09343		mg/Kg		92	70 - 130
Ethylbenzene	<0.00202	U	0.101	0.1037		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.202	0.2207		mg/Kg		109	70 - 130
o-Xylene	<0.00202	U *+	0.101	0.1273		mg/Kg		126	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-19544-6 MSD

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: B-21-5'-092122

Prep Type: Total/NA

Prep Batch: 36054

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0996	0.09100		mg/Kg		91	70 - 130	3	35
Toluene	<0.00202	U	0.0996	0.08363		mg/Kg		83	70 - 130	11	35
Ethylbenzene	<0.00202	U	0.0996	0.08759		mg/Kg		88	70 - 130	17	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1806		mg/Kg		91	70 - 130	20	35
o-Xylene	<0.00202	U *+	0.0996	0.1047		mg/Kg		105	70 - 130	20	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-36057/8

Matrix: Solid

Analysis Batch: 36057

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			10/04/22 16:12	1
Toluene	<0.00200	U	0.00200		mg/Kg			10/04/22 16:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			10/04/22 16:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			10/04/22 16:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			10/04/22 16:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			10/04/22 16:12	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	110		70 - 130		10/04/22 16:12	1			
1,4-Difluorobenzene (Surr)	87		70 - 130		10/04/22 16:12	1			

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: MB 880-36058/5-A

Matrix: Solid

Analysis Batch: 36122

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36058

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/04/22 13:34	10/05/22 10:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/04/22 13:34	10/05/22 10:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/04/22 13:34	10/05/22 10:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	10/04/22 13:34	10/05/22 10:04	1
1,4-Difluorobenzene (Surr)	84		70 - 130	10/04/22 13:34	10/05/22 10:04	1

Lab Sample ID: LCS 880-36058/1-A

Matrix: Solid

Analysis Batch: 36122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36058

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1062		mg/Kg		106	70 - 130
Toluene	0.100	0.1099		mg/Kg		110	70 - 130
Ethylbenzene	0.100	0.1085		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2271		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1130		mg/Kg		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-36058/2-A

Matrix: Solid

Analysis Batch: 36122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36058

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1225		mg/Kg		123	70 - 130	14	35
Toluene	0.100	0.1214		mg/Kg		121	70 - 130	10	35
Ethylbenzene	0.100	0.1147		mg/Kg		115	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2404		mg/Kg		120	70 - 130	6	35
o-Xylene	0.100	0.1210		mg/Kg		121	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-19583-1 MS

Matrix: Solid

Analysis Batch: 36122

Client Sample ID: SW-8-3'-092222

Prep Type: Total/NA

Prep Batch: 36058

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1148		mg/Kg		114	70 - 130
Toluene	<0.00201	U	0.101	0.1165		mg/Kg		115	70 - 130

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 880-19583-1 MS

Matrix: Solid

Analysis Batch: 36122

Client Sample ID: SW-8-3'-092222

Prep Type: Total/NA

Prep Batch: 36058

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.1110		mg/Kg		110	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.2316		mg/Kg		115	70 - 130
o-Xylene	<0.00201	U	0.101	0.1157		mg/Kg		115	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-19583-1 MSD

Matrix: Solid

Analysis Batch: 36122

Client Sample ID: SW-8-3'-092222

Prep Type: Total/NA

Prep Batch: 36058

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00201	U	0.0994	0.09598		mg/Kg		97	70 - 130	18	35
Toluene	<0.00201	U	0.0994	0.1014		mg/Kg		101	70 - 130	14	35
Ethylbenzene	<0.00201	U	0.0994	0.09947		mg/Kg		100	70 - 130	11	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2082		mg/Kg		105	70 - 130	11	35
o-Xylene	<0.00201	U	0.0994	0.1035		mg/Kg		104	70 - 130	11	35

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

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

Lab Sample ID: MB 880-34673/1-A

Matrix: Solid

Analysis Batch: 34714

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 10:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 10:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/16/22 11:40	09/18/22 10:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	09/16/22 11:40	09/18/22 10:36	1
o-Terphenyl	122		70 - 130	09/16/22 11:40	09/18/22 10:36	1

Lab Sample ID: LCS 880-34673/2-A

Matrix: Solid

Analysis Batch: 34714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	700.8		mg/Kg		70	70 - 130
Diesel Range Organics (Over C10-C28)	1000	811.2		mg/Kg		81	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-34673/2-A

Matrix: Solid

Analysis Batch: 34714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34673

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-34673/3-A

Matrix: Solid

Analysis Batch: 34714

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34673

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	880.9	*1	mg/Kg		88	70 - 130	23	20
Diesel Range Organics (Over C10-C28)	1000	808.4		mg/Kg		81	70 - 130	0	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2971-A-1-C MS

Matrix: Solid

Analysis Batch: 34714

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34673

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	996	1095		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	412		996	1146		mg/Kg		74	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	77		70 - 130

Lab Sample ID: 890-2971-A-1-D MSD

Matrix: Solid

Analysis Batch: 34714

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 34673

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	999	1040		mg/Kg		104	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	412		999	1155		mg/Kg		74	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	77		70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: MB 880-34938/1-A

Matrix: Solid

Analysis Batch: 34885

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34938

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/20/22 19:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/20/22 19:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 11:59	09/20/22 19:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	09/20/22 11:59	09/20/22 19:03	1
o-Terphenyl	111		70 - 130	09/20/22 11:59	09/20/22 19:03	1

Lab Sample ID: LCS 880-34938/2-A

Matrix: Solid

Analysis Batch: 34885

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34938

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1022		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1099		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: LCSD 880-34938/3-A

Matrix: Solid

Analysis Batch: 34885

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34938

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	896.8		mg/Kg		90	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	1000	977.6		mg/Kg		98	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 890-2999-A-1-E MS

Matrix: Solid

Analysis Batch: 34885

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34938

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	836.5		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	889.3		mg/Kg		89	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 890-2999-A-1-E MS

Matrix: Solid

Analysis Batch: 34885

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34938

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 890-2999-A-1-F MSD

Matrix: Solid

Analysis Batch: 34885

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 34938

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	889.9		mg/Kg		89	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	923.4		mg/Kg		92	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: MB 880-34983/1-A

Matrix: Solid

Analysis Batch: 35011

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 10:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 10:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/20/22 15:30	09/21/22 10:03	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	85		70 - 130	09/20/22 15:30	09/21/22 10:03	1
o-Terphenyl	100		70 - 130	09/20/22 15:30	09/21/22 10:03	1

Lab Sample ID: LCS 880-34983/2-A

Matrix: Solid

Analysis Batch: 35011

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1033		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)	1000	912.4		mg/Kg		91	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	174	S1+	70 - 130
o-Terphenyl	196	S1+	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCSD 880-34983/3-A

Matrix: Solid

Analysis Batch: 35011

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34983

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	944.1		mg/Kg		94	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	955.3		mg/Kg		96	70 - 130	5	20
		LCSD %Recovery	LCSD Qualifier						
Surrogate									
1-Chlorooctane		177	S1+						
o-Terphenyl		203	S1+						

Lab Sample ID: 880-19347-1 MS

Matrix: Solid

Analysis Batch: 35011

Client Sample ID: B-12-6'-091522

Prep Type: Total/NA

Prep Batch: 34983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	922.7		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	815.7		mg/Kg		80	70 - 130		
		MS %Recovery	MS Qualifier								
Surrogate											
1-Chlorooctane		89									
o-Terphenyl		86									

Lab Sample ID: 880-19347-1 MSD

Matrix: Solid

Analysis Batch: 35011

Client Sample ID: B-12-6'-091522

Prep Type: Total/NA

Prep Batch: 34983

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	809.5		mg/Kg		78	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	789.8		mg/Kg		77	70 - 130	3	20
		MSD %Recovery	MSD Qualifier								
Surrogate											
1-Chlorooctane		81									
o-Terphenyl		82									

Lab Sample ID: MB 880-35279/1-A

Matrix: Solid

Analysis Batch: 35324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/24/22 20:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/24/22 20:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 13:45	09/24/22 20:31	1

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: MB 880-35279/1-A

Matrix: Solid

Analysis Batch: 35324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35279

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	09/23/22 13:45	09/24/22 20:31	1
o-Terphenyl	138	S1+	70 - 130	09/23/22 13:45	09/24/22 20:31	1

Lab Sample ID: LCS 880-35279/2-A

Matrix: Solid

Analysis Batch: 35324

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35279

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	926.4		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	811.7		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: LCSD 880-35279/3-A

Matrix: Solid

Analysis Batch: 35324

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35279

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	901.9		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	858.5		mg/Kg		86	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-3030-A-21-C MS

Matrix: Solid

Analysis Batch: 35324

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35279

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1079		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	122		996	951.4		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	91		70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 890-3030-A-21-D MSD

Matrix: Solid

Analysis Batch: 35324

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35279

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1113		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	122		999	973.7		mg/Kg		85	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	97		70 - 130								
o-Terphenyl	91		70 - 130								

Lab Sample ID: MB 880-35419/1-A

Matrix: Solid

Analysis Batch: 35460

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 11:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 11:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 13:43	09/27/22 11:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				09/26/22 13:43	09/27/22 11:23	1
o-Terphenyl	105		70 - 130				09/26/22 13:43	09/27/22 11:23	1

Lab Sample ID: LCS 880-35419/2-A

Matrix: Solid

Analysis Batch: 35460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	870.5		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	909.2		mg/Kg		91	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	109		70 - 130						

Lab Sample ID: LCSD 880-35419/3-A

Matrix: Solid

Analysis Batch: 35460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35419

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	897.3		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1059		mg/Kg		106	70 - 130	15	20

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCSD 880-35419/3-A

Matrix: Solid

Analysis Batch: 35460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35419

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: 890-3035-A-21-C MS

Matrix: Solid

Analysis Batch: 35460

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35419

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	998	822.9		mg/Kg		81	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	972.9		mg/Kg		96	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	80		70 - 130							
o-Terphenyl	81		70 - 130							

Lab Sample ID: 890-3035-A-21-D MSD

Matrix: Solid

Analysis Batch: 35460

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35419

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	999	1031	F2	mg/Kg		102	70 - 130	22	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1106		mg/Kg		109	70 - 130	13	20	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	93		70 - 130									
o-Terphenyl	89		70 - 130									

Lab Sample ID: MB 880-35422/1-A

Matrix: Solid

Analysis Batch: 35341

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35422

	MB	MB										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/26/22 15:10	09/26/22 20:03	1			
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/26/22 15:10	09/26/22 20:03	1			
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/26/22 15:10	09/26/22 20:03	1			
	MB	MB										
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac			
1-Chlorooctane	99		70 - 130				09/26/22 15:10	09/26/22 20:03	1			
o-Terphenyl	106		70 - 130				09/26/22 15:10	09/26/22 20:03	1			

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-35422/2-A

Matrix: Solid

Analysis Batch: 35341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35422

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier			Limits	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1096		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	814.0		mg/Kg		81	70 - 130		

Lab Sample ID: LCSD 880-35422/3-A

Matrix: Solid

Analysis Batch: 35341

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35422

			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Analyte											
Gasoline Range Organics (GRO)-C6-C10			1000	1110		mg/Kg		111	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	829.5		mg/Kg		83	70 - 130	2	20

Lab Sample ID: 890-3038-A-1-C MS

Matrix: Solid

Analysis Batch: 35341

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35422

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1150		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)	61.8		998	857.1		mg/Kg		80	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	90		70 - 130								

Lab Sample ID: 890-3038-A-1-D MSD

Matrix: Solid

Analysis Batch: 35341

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35422

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1175		mg/Kg		116	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	61.8		999	952.6		mg/Kg		89	70 - 130	11	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	107		70 - 130								

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Lab Sample ID: 890-3038-A-1-D MSD

Matrix: Solid

Analysis Batch: 35341

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35422

Surrogate	%Recovery	MSD Qualifier	MSD Limits
o-Terphenyl	99		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34660/1-A

Matrix: Solid

Analysis Batch: 34679

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/16/22 13:00	1

Lab Sample ID: LCS 880-34660/2-A

Matrix: Solid

Analysis Batch: 34679

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	246.1		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-34660/3-A

Matrix: Solid

Analysis Batch: 34679

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	247.4		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-2979-8 MS

Matrix: Solid

Analysis Batch: 34679

Client Sample ID: B-6-3-091422

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1300		2480	3841		mg/Kg		103	90 - 110

Lab Sample ID: 890-2979-8 MSD

Matrix: Solid

Analysis Batch: 34679

Client Sample ID: B-6-3-091422

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1300		2480	3838		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-34701/1-A

Matrix: Solid

Analysis Batch: 34702

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/16/22 21:51	1

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-34701/2-A

Matrix: Solid

Analysis Batch: 34702

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	245.0		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-34701/3-A

Matrix: Solid

Analysis Batch: 34702

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	255.0		mg/Kg		102	90 - 110	4	20

Lab Sample ID: 880-19347-1 MS

Matrix: Solid

Analysis Batch: 34702

Client Sample ID: B-12-6'-091522

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	339		2510	2767		mg/Kg		97	90 - 110

Lab Sample ID: 880-19347-1 MSD

Matrix: Solid

Analysis Batch: 34702

Client Sample ID: B-12-6'-091522

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	339		2510	2727		mg/Kg		95	90 - 110	1	20

Lab Sample ID: MB 880-35171/1-A

Matrix: Solid

Analysis Batch: 35184

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/22/22 13:41	1

Lab Sample ID: LCS 880-35171/2-A

Matrix: Solid

Analysis Batch: 35184

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	245.4		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-35171/3-A

Matrix: Solid

Analysis Batch: 35184

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	245.9		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-19544-8 MS

Matrix: Solid

Analysis Batch: 35184

Client Sample ID: B-23-5'-092122

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	191		1250	1436		mg/Kg		99	90 - 110

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QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-19544-8 MSD

Matrix: Solid

Analysis Batch: 35184

Client Sample ID: B-23-5'-092122

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	191		1250	1439		mg/Kg		100	90 - 110	0	20

Lab Sample ID: MB 880-35261/1-A

Matrix: Solid

Analysis Batch: 35266

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/23/22 12:06	1

Lab Sample ID: LCS 880-35261/2-A

Matrix: Solid

Analysis Batch: 35266

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	244.8		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-35261/3-A

Matrix: Solid

Analysis Batch: 35266

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	245.5		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-19583-1 MS

Matrix: Solid

Analysis Batch: 35266

Client Sample ID: SW-8-3'-092222

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	79.7		252	324.0		mg/Kg		97	90 - 110

Lab Sample ID: 880-19583-1 MSD

Matrix: Solid

Analysis Batch: 35266

Client Sample ID: SW-8-3'-092222

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	79.7		252	325.3		mg/Kg		98	90 - 110	0	20

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA

Analysis Batch: 34746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-2	SW-2-2-091422	Total/NA	Solid	8021B	34801
890-2979-3	SW-3-2-091422	Total/NA	Solid	8021B	34801
890-2979-6	B-4-5-091422	Total/NA	Solid	8021B	34801
890-2979-7	B-5-5-091422	Total/NA	Solid	8021B	34801
890-2979-11	SW-4-2-091422	Total/NA	Solid	8021B	34801
MB 880-34801/5-A	Method Blank	Total/NA	Solid	8021B	34801
LCS 880-34801/1-A	Lab Control Sample	Total/NA	Solid	8021B	34801
LCSD 880-34801/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34801
880-18965-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	34801
880-18965-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34801

Prep Batch: 34801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-2	SW-2-2-091422	Total/NA	Solid	5035	
890-2979-3	SW-3-2-091422	Total/NA	Solid	5035	
890-2979-6	B-4-5-091422	Total/NA	Solid	5035	
890-2979-7	B-5-5-091422	Total/NA	Solid	5035	
890-2979-11	SW-4-2-091422	Total/NA	Solid	5035	
MB 880-34801/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34801/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34801/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18965-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-18965-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 34900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Total/NA	Solid	Total BTEX	
890-2979-2	SW-2-2-091422	Total/NA	Solid	Total BTEX	
890-2979-3	SW-3-2-091422	Total/NA	Solid	Total BTEX	
890-2979-6	B-4-5-091422	Total/NA	Solid	Total BTEX	
890-2979-7	B-5-5-091422	Total/NA	Solid	Total BTEX	
890-2979-11	SW-4-2-091422	Total/NA	Solid	Total BTEX	
890-2979-12	B-4-3.5-091422	Total/NA	Solid	Total BTEX	
890-2979-13	B-9-6-091522	Total/NA	Solid	Total BTEX	
890-2979-14	B-10-6-091522	Total/NA	Solid	Total BTEX	
890-2979-15	B-11-6-091522	Total/NA	Solid	Total BTEX	

Prep Batch: 35092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-12	B-4-3.5-091422	Total/NA	Solid	5035	
890-2979-13	B-9-6-091522	Total/NA	Solid	5035	
MB 880-35092/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35092/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35092/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2940-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2940-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 35106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-35106/5-A	Method Blank	Total/NA	Solid	5035	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA

Analysis Batch: 35151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Total/NA	Solid	8021B	35157
MB 880-35157/5-A	Method Blank	Total/NA	Solid	8021B	35157
LCS 880-35157/1-A	Lab Control Sample	Total/NA	Solid	8021B	35157
LCSD 880-35157/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35157
890-2998-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	35157
890-2998-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35157

Prep Batch: 35157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Total/NA	Solid	5035	
MB 880-35157/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35157/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35157/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2998-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2998-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 35198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-14	B-10-6-091522	Total/NA	Solid	5035	
890-2979-15	B-11-6-091522	Total/NA	Solid	5035	
MB 880-35198/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35198/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35198/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2953-A-61-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2953-A-61-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 35204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-35204/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 35209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-8	Sw-7-3'-091622	Total/NA	Solid	5035	
880-19347-9	Sw-10-3'-091622	Total/NA	Solid	5035	
MB 880-35209/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35209/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35209/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19356-A-59-D MS	Matrix Spike	Total/NA	Solid	5035	
880-19356-A-59-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 35226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-12	B-4-3.5-091422	Total/NA	Solid	8021B	35092
890-2979-13	B-9-6-091522	Total/NA	Solid	8021B	35092
MB 880-35092/5-A	Method Blank	Total/NA	Solid	8021B	35092
LCS 880-35092/1-A	Lab Control Sample	Total/NA	Solid	8021B	35092
LCSD 880-35092/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35092
890-2940-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	35092
890-2940-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35092

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA

Analysis Batch: 35227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-14	B-10-6-091522	Total/NA	Solid	8021B	35198
890-2979-15	B-11-6-091522	Total/NA	Solid	8021B	35198
MB 880-35106/5-A	Method Blank	Total/NA	Solid	8021B	35106
MB 880-35198/5-A	Method Blank	Total/NA	Solid	8021B	35198
LCS 880-35198/1-A	Lab Control Sample	Total/NA	Solid	8021B	35198
LCSD 880-35198/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35198
890-2953-A-61-E MS	Matrix Spike	Total/NA	Solid	8021B	35198
890-2953-A-61-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35198

Analysis Batch: 35357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Total/NA	Solid	8021B	35366
880-19347-2	B-13-6'-091522	Total/NA	Solid	8021B	35366
880-19347-3	B-14-6'-091522	Total/NA	Solid	8021B	35366
880-19347-5	B-16-6'-091622	Total/NA	Solid	8021B	35366
880-19347-6	Sw-5-3'-091622	Total/NA	Solid	8021B	35366
MB 880-35366/5-A	Method Blank	Total/NA	Solid	8021B	35366
LCS 880-35366/1-A	Lab Control Sample	Total/NA	Solid	8021B	35366
LCSD 880-35366/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35366
880-19603-A-11-C MS	Matrix Spike	Total/NA	Solid	8021B	35366
880-19603-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35366

Prep Batch: 35366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Total/NA	Solid	5035	
880-19347-2	B-13-6'-091522	Total/NA	Solid	5035	
880-19347-3	B-14-6'-091522	Total/NA	Solid	5035	
880-19347-5	B-16-6'-091622	Total/NA	Solid	5035	
880-19347-6	Sw-5-3'-091622	Total/NA	Solid	5035	
MB 880-35366/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35366/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35366/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19603-A-11-C MS	Matrix Spike	Total/NA	Solid	5035	
880-19603-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 35466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-8	Sw-7-3'-091622	Total/NA	Solid	8021B	35209
880-19347-9	Sw-10-3'-091622	Total/NA	Solid	8021B	35209
MB 880-35204/5-A	Method Blank	Total/NA	Solid	8021B	35204
MB 880-35209/5-A	Method Blank	Total/NA	Solid	8021B	35209
LCS 880-35209/1-A	Lab Control Sample	Total/NA	Solid	8021B	35209
LCSD 880-35209/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35209
880-19356-A-59-D MS	Matrix Spike	Total/NA	Solid	8021B	35209
880-19356-A-59-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35209

Analysis Batch: 35487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Total/NA	Solid	Total BTEX	
880-19347-2	B-13-6'-091522	Total/NA	Solid	Total BTEX	
880-19347-3	B-14-6'-091522	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA (Continued)

Analysis Batch: 35487 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-5	B-16-6'-091622	Total/NA	Solid	Total BTEX	
880-19347-6	Sw-5-3'-091622	Total/NA	Solid	Total BTEX	
880-19347-7	Sw-6-3'-091622	Total/NA	Solid	Total BTEX	
880-19347-8	Sw-7-3'-091622	Total/NA	Solid	Total BTEX	
880-19347-9	Sw-10-3'-091622	Total/NA	Solid	Total BTEX	

Prep Batch: 35625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-35625/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 35691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Total/NA	Solid	5035	
880-19544-2	B-18-4'-092022	Total/NA	Solid	5035	
880-19544-3	SW-12-2'-092022	Total/NA	Solid	5035	
MB 880-35691/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35691/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35691/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19484-A-2-D MS	Matrix Spike	Total/NA	Solid	5035	
880-19484-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 35744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-7	Sw-6-3'-091622	Total/NA	Solid	8021B	35745
MB 880-35745/5-A	Method Blank	Total/NA	Solid	8021B	35745
LCS 880-35745/1-A	Lab Control Sample	Total/NA	Solid	8021B	35745
LCSD 880-35745/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35745
880-19347-7 MS	Sw-6-3'-091622	Total/NA	Solid	8021B	35745
880-19347-7 MSD	Sw-6-3'-091622	Total/NA	Solid	8021B	35745

Prep Batch: 35745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-7	Sw-6-3'-091622	Total/NA	Solid	5035	
MB 880-35745/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35745/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35745/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19347-7 MS	Sw-6-3'-091622	Total/NA	Solid	5035	
880-19347-7 MSD	Sw-6-3'-091622	Total/NA	Solid	5035	

Analysis Batch: 35815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Total/NA	Solid	8021B	35691
880-19544-2	B-18-4'-092022	Total/NA	Solid	8021B	35691
880-19544-3	SW-12-2'-092022	Total/NA	Solid	8021B	35691
MB 880-35625/5-A	Method Blank	Total/NA	Solid	8021B	35625
MB 880-35691/5-A	Method Blank	Total/NA	Solid	8021B	35691
LCS 880-35691/1-A	Lab Control Sample	Total/NA	Solid	8021B	35691
LCSD 880-35691/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35691
880-19484-A-2-D MS	Matrix Spike	Total/NA	Solid	8021B	35691
880-19484-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35691

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA

Analysis Batch: 35909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Total/NA	Solid	Total BTEX	
880-19544-2	B-18-4'-092022	Total/NA	Solid	Total BTEX	
880-19544-3	SW-12-2'-092022	Total/NA	Solid	Total BTEX	
880-19544-4	B-25-6'-092122	Total/NA	Solid	Total BTEX	
880-19544-5	B-19-6'-092122	Total/NA	Solid	Total BTEX	
880-19544-6	B-21-5'-092122	Total/NA	Solid	Total BTEX	
880-19544-7	B-22-6'-092122	Total/NA	Solid	Total BTEX	
880-19544-8	B-23-5'-092122	Total/NA	Solid	Total BTEX	
880-19544-9	B-24-5'-092122	Total/NA	Solid	Total BTEX	
880-19544-10	SW-11-3'-092122	Total/NA	Solid	Total BTEX	
880-19544-11	SW-15-3'-092122	Total/NA	Solid	Total BTEX	
880-19544-12	B-2-4'-092122	Total/NA	Solid	Total BTEX	
880-19544-13	B-6-3.5'-092122	Total/NA	Solid	Total BTEX	
880-19544-14	B-7-4'-092122	Total/NA	Solid	Total BTEX	
880-19544-15	B-8-4'-092122	Total/NA	Solid	Total BTEX	
880-19544-16	B-15-7'-092122	Total/NA	Solid	Total BTEX	
880-19544-17	B-20-4'-092122	Total/NA	Solid	Total BTEX	

Analysis Batch: 35920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-4	B-25-6'-092122	Total/NA	Solid	8021B	35997
880-19544-5	B-19-6'-092122	Total/NA	Solid	8021B	35997
MB 880-35997/5-A	Method Blank	Total/NA	Solid	8021B	35997
LCS 880-35997/1-A	Lab Control Sample	Total/NA	Solid	8021B	35997
LCSD 880-35997/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35997
890-3026-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	35997
890-3026-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35997

Prep Batch: 35997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-4	B-25-6'-092122	Total/NA	Solid	5035	
880-19544-5	B-19-6'-092122	Total/NA	Solid	5035	
MB 880-35997/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35997/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35997/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3026-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3026-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 36054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-6	B-21-5'-092122	Total/NA	Solid	5035	
880-19544-7	B-22-6'-092122	Total/NA	Solid	5035	
880-19544-8	B-23-5'-092122	Total/NA	Solid	5035	
880-19544-9	B-24-5'-092122	Total/NA	Solid	5035	
880-19544-10	SW-11-3'-092122	Total/NA	Solid	5035	
880-19544-11	SW-15-3'-092122	Total/NA	Solid	5035	
880-19544-12	B-2-4'-092122	Total/NA	Solid	5035	
880-19544-13	B-6-3.5'-092122	Total/NA	Solid	5035	
880-19544-14	B-7-4'-092122	Total/NA	Solid	5035	
880-19544-15	B-8-4'-092122	Total/NA	Solid	5035	
880-19544-16	B-15-7'-092122	Total/NA	Solid	5035	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA (Continued)

Prep Batch: 36054 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-17	B-20-4'-092122	Total/NA	Solid	5035	
MB 880-36054/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36054/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36054/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19544-6 MS	B-21-5'-092122	Total/NA	Solid	5035	
880-19544-6 MSD	B-21-5'-092122	Total/NA	Solid	5035	

Analysis Batch: 36057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-6	B-21-5'-092122	Total/NA	Solid	8021B	36054
880-19544-7	B-22-6'-092122	Total/NA	Solid	8021B	36054
880-19544-8	B-23-5'-092122	Total/NA	Solid	8021B	36054
880-19544-9	B-24-5'-092122	Total/NA	Solid	8021B	36054
880-19544-10	SW-11-3'-092122	Total/NA	Solid	8021B	36054
880-19544-11	SW-15-3'-092122	Total/NA	Solid	8021B	36054
880-19544-12	B-2-4'-092122	Total/NA	Solid	8021B	36054
880-19544-13	B-6-3.5'-092122	Total/NA	Solid	8021B	36054
880-19544-14	B-7-4'-092122	Total/NA	Solid	8021B	36054
880-19544-15	B-8-4'-092122	Total/NA	Solid	8021B	36054
880-19544-16	B-15-7'-092122	Total/NA	Solid	8021B	36054
880-19544-17	B-20-4'-092122	Total/NA	Solid	8021B	36054
MB 880-36054/5-A	Method Blank	Total/NA	Solid	8021B	36054
MB 880-36057/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-36054/1-A	Lab Control Sample	Total/NA	Solid	8021B	36054
LCSD 880-36054/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36054
880-19544-6 MS	B-21-5'-092122	Total/NA	Solid	8021B	36054
880-19544-6 MSD	B-21-5'-092122	Total/NA	Solid	8021B	36054

Prep Batch: 36058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Total/NA	Solid	5035	
880-19583-2	SW-9-3'-092222	Total/NA	Solid	5035	
880-19583-3	SW-13-3'-092222	Total/NA	Solid	5035	
880-19583-4	SW-14-3'-092222	Total/NA	Solid	5035	
880-19583-5	SW-16-3'-092222	Total/NA	Solid	5035	
880-19583-6	B-26-6'-092222	Total/NA	Solid	5035	
880-19583-7	B-27-6'-092222	Total/NA	Solid	5035	
MB 880-36058/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36058/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36058/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19583-1 MS	SW-8-3'-092222	Total/NA	Solid	5035	
880-19583-1 MSD	SW-8-3'-092222	Total/NA	Solid	5035	

Analysis Batch: 36122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Total/NA	Solid	8021B	36058
880-19583-2	SW-9-3'-092222	Total/NA	Solid	8021B	36058
880-19583-3	SW-13-3'-092222	Total/NA	Solid	8021B	36058
880-19583-4	SW-14-3'-092222	Total/NA	Solid	8021B	36058
880-19583-5	SW-16-3'-092222	Total/NA	Solid	8021B	36058
880-19583-6	B-26-6'-092222	Total/NA	Solid	8021B	36058

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC VOA (Continued)

Analysis Batch: 36122 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-7	B-27-6'-092222	Total/NA	Solid	8021B	36058
MB 880-36058/5-A	Method Blank	Total/NA	Solid	8021B	36058
LCS 880-36058/1-A	Lab Control Sample	Total/NA	Solid	8021B	36058
LCSD 880-36058/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36058
880-19583-1 MS	SW-8-3'-092222	Total/NA	Solid	8021B	36058
880-19583-1 MSD	SW-8-3'-092222	Total/NA	Solid	8021B	36058

Analysis Batch: 36199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Total/NA	Solid	Total BTEX	
880-19583-2	SW-9-3'-092222	Total/NA	Solid	Total BTEX	
880-19583-3	SW-13-3'-092222	Total/NA	Solid	Total BTEX	
880-19583-4	SW-14-3'-092222	Total/NA	Solid	Total BTEX	
880-19583-5	SW-16-3'-092222	Total/NA	Solid	Total BTEX	
880-19583-6	B-26-6'-092222	Total/NA	Solid	Total BTEX	
880-19583-7	B-27-6'-092222	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 34673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-2	SW-2-2-091422	Total/NA	Solid	8015NM Prep	
890-2979-3	SW-3-2-091422	Total/NA	Solid	8015NM Prep	
890-2979-6	B-4-5-091422	Total/NA	Solid	8015NM Prep	
890-2979-7	B-5-5-091422	Total/NA	Solid	8015NM Prep	
890-2979-11	SW-4-2-091422	Total/NA	Solid	8015NM Prep	
MB 880-34673/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34673/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34673/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2971-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2971-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-2	SW-2-2-091422	Total/NA	Solid	8015B NM	34673
890-2979-3	SW-3-2-091422	Total/NA	Solid	8015B NM	34673
890-2979-6	B-4-5-091422	Total/NA	Solid	8015B NM	34673
890-2979-7	B-5-5-091422	Total/NA	Solid	8015B NM	34673
890-2979-11	SW-4-2-091422	Total/NA	Solid	8015B NM	34673
MB 880-34673/1-A	Method Blank	Total/NA	Solid	8015B NM	34673
LCS 880-34673/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34673
LCSD 880-34673/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34673
890-2971-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	34673
890-2971-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34673

Analysis Batch: 34862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Total/NA	Solid	8015 NM	
890-2979-2	SW-2-2-091422	Total/NA	Solid	8015 NM	
890-2979-3	SW-3-2-091422	Total/NA	Solid	8015 NM	
890-2979-6	B-4-5-091422	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC Semi VOA (Continued)

Analysis Batch: 34862 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-7	B-5-5-091422	Total/NA	Solid	8015 NM	
890-2979-11	SW-4-2-091422	Total/NA	Solid	8015 NM	
890-2979-12	B-4-3.5-091422	Total/NA	Solid	8015 NM	
890-2979-13	B-9-6-091522	Total/NA	Solid	8015 NM	
890-2979-14	B-10-6-091522	Total/NA	Solid	8015 NM	
890-2979-15	B-11-6-091522	Total/NA	Solid	8015 NM	

Analysis Batch: 34885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Total/NA	Solid	8015B NM	34938
890-2979-12	B-4-3.5-091422	Total/NA	Solid	8015B NM	34938
890-2979-13	B-9-6-091522	Total/NA	Solid	8015B NM	34938
890-2979-14	B-10-6-091522	Total/NA	Solid	8015B NM	34938
890-2979-15	B-11-6-091522	Total/NA	Solid	8015B NM	34938
MB 880-34938/1-A	Method Blank	Total/NA	Solid	8015B NM	34938
LCS 880-34938/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34938
LCSD 880-34938/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34938
890-2999-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	34938
890-2999-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34938

Prep Batch: 34938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Total/NA	Solid	8015NM Prep	
890-2979-12	B-4-3.5-091422	Total/NA	Solid	8015NM Prep	
890-2979-13	B-9-6-091522	Total/NA	Solid	8015NM Prep	
890-2979-14	B-10-6-091522	Total/NA	Solid	8015NM Prep	
890-2979-15	B-11-6-091522	Total/NA	Solid	8015NM Prep	
MB 880-34938/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34938/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34938/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2999-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2999-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 34983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Total/NA	Solid	8015NM Prep	
880-19347-2	B-13-6'-091522	Total/NA	Solid	8015NM Prep	
880-19347-3	B-14-6'-091522	Total/NA	Solid	8015NM Prep	
880-19347-5	B-16-6'-091622	Total/NA	Solid	8015NM Prep	
880-19347-6	Sw-5-3'-091622	Total/NA	Solid	8015NM Prep	
880-19347-7	Sw-6-3'-091622	Total/NA	Solid	8015NM Prep	
880-19347-8	Sw-7-3'-091622	Total/NA	Solid	8015NM Prep	
880-19347-9	Sw-10-3'-091622	Total/NA	Solid	8015NM Prep	
MB 880-34983/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34983/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34983/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19347-1 MS	B-12-6'-091522	Total/NA	Solid	8015NM Prep	
880-19347-1 MSD	B-12-6'-091522	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC Semi VOA

Analysis Batch: 35011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Total/NA	Solid	8015B NM	34983
880-19347-2	B-13-6'-091522	Total/NA	Solid	8015B NM	34983
880-19347-3	B-14-6'-091522	Total/NA	Solid	8015B NM	34983
880-19347-5	B-16-6'-091622	Total/NA	Solid	8015B NM	34983
880-19347-6	Sw-5-3'-091622	Total/NA	Solid	8015B NM	34983
880-19347-7	Sw-6-3'-091622	Total/NA	Solid	8015B NM	34983
880-19347-8	Sw-7-3'-091622	Total/NA	Solid	8015B NM	34983
880-19347-9	Sw-10-3'-091622	Total/NA	Solid	8015B NM	34983
MB 880-34983/1-A	Method Blank	Total/NA	Solid	8015B NM	34983
LCS 880-34983/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34983
LCSD 880-34983/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34983
880-19347-1 MS	B-12-6'-091522	Total/NA	Solid	8015B NM	34983
880-19347-1 MSD	B-12-6'-091522	Total/NA	Solid	8015B NM	34983

Analysis Batch: 35158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Total/NA	Solid	8015 NM	
880-19347-2	B-13-6'-091522	Total/NA	Solid	8015 NM	
880-19347-3	B-14-6'-091522	Total/NA	Solid	8015 NM	
880-19347-5	B-16-6'-091622	Total/NA	Solid	8015 NM	
880-19347-6	Sw-5-3'-091622	Total/NA	Solid	8015 NM	
880-19347-7	Sw-6-3'-091622	Total/NA	Solid	8015 NM	
880-19347-8	Sw-7-3'-091622	Total/NA	Solid	8015 NM	
880-19347-9	Sw-10-3'-091622	Total/NA	Solid	8015 NM	

Prep Batch: 35279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Total/NA	Solid	8015NM Prep	
880-19583-2	SW-9-3'-092222	Total/NA	Solid	8015NM Prep	
880-19583-3	SW-13-3'-092222	Total/NA	Solid	8015NM Prep	
880-19583-4	SW-14-3'-092222	Total/NA	Solid	8015NM Prep	
880-19583-5	SW-16-3'-092222	Total/NA	Solid	8015NM Prep	
880-19583-6	B-26-6'-092222	Total/NA	Solid	8015NM Prep	
MB 880-35279/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35279/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35279/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3030-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3030-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Total/NA	Solid	8015B NM	35279
880-19583-2	SW-9-3'-092222	Total/NA	Solid	8015B NM	35279
880-19583-3	SW-13-3'-092222	Total/NA	Solid	8015B NM	35279
880-19583-4	SW-14-3'-092222	Total/NA	Solid	8015B NM	35279
880-19583-5	SW-16-3'-092222	Total/NA	Solid	8015B NM	35279
880-19583-6	B-26-6'-092222	Total/NA	Solid	8015B NM	35279
MB 880-35279/1-A	Method Blank	Total/NA	Solid	8015B NM	35279
LCS 880-35279/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35279
LCSD 880-35279/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35279
890-3030-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35279

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC Semi VOA (Continued)

Analysis Batch: 35324 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3030-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35279

Analysis Batch: 35341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-7	B-27-6'-092222	Total/NA	Solid	8015B NM	35422
MB 880-35422/1-A	Method Blank	Total/NA	Solid	8015B NM	35422
LCS 880-35422/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35422
LCSD 880-35422/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35422
890-3038-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35422
890-3038-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35422

Analysis Batch: 35415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Total/NA	Solid	8015 NM	
880-19583-2	SW-9-3'-092222	Total/NA	Solid	8015 NM	
880-19583-3	SW-13-3'-092222	Total/NA	Solid	8015 NM	
880-19583-4	SW-14-3'-092222	Total/NA	Solid	8015 NM	
880-19583-5	SW-16-3'-092222	Total/NA	Solid	8015 NM	
880-19583-6	B-26-6'-092222	Total/NA	Solid	8015 NM	
880-19583-7	B-27-6'-092222	Total/NA	Solid	8015 NM	

Prep Batch: 35419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Total/NA	Solid	8015NM Prep	
880-19544-2	B-18-4'-092022	Total/NA	Solid	8015NM Prep	
880-19544-3	SW-12-2'-092022	Total/NA	Solid	8015NM Prep	
880-19544-4	B-25-6'-092122	Total/NA	Solid	8015NM Prep	
880-19544-5	B-19-6'-092122	Total/NA	Solid	8015NM Prep	
880-19544-6	B-21-5'-092122	Total/NA	Solid	8015NM Prep	
880-19544-7	B-22-6'-092122	Total/NA	Solid	8015NM Prep	
880-19544-8	B-23-5'-092122	Total/NA	Solid	8015NM Prep	
880-19544-9	B-24-5'-092122	Total/NA	Solid	8015NM Prep	
880-19544-10	SW-11-3'-092122	Total/NA	Solid	8015NM Prep	
880-19544-11	SW-15-3'-092122	Total/NA	Solid	8015NM Prep	
880-19544-12	B-2-4'-092122	Total/NA	Solid	8015NM Prep	
880-19544-13	B-6-3.5'-092122	Total/NA	Solid	8015NM Prep	
880-19544-14	B-7-4'-092122	Total/NA	Solid	8015NM Prep	
880-19544-15	B-8-4'-092122	Total/NA	Solid	8015NM Prep	
880-19544-16	B-15-7'-092122	Total/NA	Solid	8015NM Prep	
880-19544-17	B-20-4'-092122	Total/NA	Solid	8015NM Prep	
MB 880-35419/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35419/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35419/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3035-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3035-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 35422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-7	B-27-6'-092222	Total/NA	Solid	8015NM Prep	
MB 880-35422/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35422/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

GC Semi VOA (Continued)

Prep Batch: 35422 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-35422/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3038-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3038-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Total/NA	Solid	8015B NM	35419
880-19544-2	B-18-4'-092022	Total/NA	Solid	8015B NM	35419
880-19544-3	SW-12-2'-092022	Total/NA	Solid	8015B NM	35419
880-19544-4	B-25-6'-092122	Total/NA	Solid	8015B NM	35419
880-19544-5	B-19-6'-092122	Total/NA	Solid	8015B NM	35419
880-19544-6	B-21-5'-092122	Total/NA	Solid	8015B NM	35419
880-19544-7	B-22-6'-092122	Total/NA	Solid	8015B NM	35419
880-19544-8	B-23-5'-092122	Total/NA	Solid	8015B NM	35419
880-19544-9	B-24-5'-092122	Total/NA	Solid	8015B NM	35419
880-19544-10	SW-11-3'-092122	Total/NA	Solid	8015B NM	35419
880-19544-11	SW-15-3'-092122	Total/NA	Solid	8015B NM	35419
880-19544-12	B-2-4'-092122	Total/NA	Solid	8015B NM	35419
880-19544-13	B-6-3.5'-092122	Total/NA	Solid	8015B NM	35419
880-19544-14	B-7-4'-092122	Total/NA	Solid	8015B NM	35419
880-19544-15	B-8-4'-092122	Total/NA	Solid	8015B NM	35419
880-19544-16	B-15-7'-092122	Total/NA	Solid	8015B NM	35419
880-19544-17	B-20-4'-092122	Total/NA	Solid	8015B NM	35419
MB 880-35419/1-A	Method Blank	Total/NA	Solid	8015B NM	35419
LCS 880-35419/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35419
LCSD 880-35419/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35419
890-3035-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35419
890-3035-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35419

Analysis Batch: 35566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Total/NA	Solid	8015 NM	
880-19544-2	B-18-4'-092022	Total/NA	Solid	8015 NM	
880-19544-3	SW-12-2'-092022	Total/NA	Solid	8015 NM	
880-19544-4	B-25-6'-092122	Total/NA	Solid	8015 NM	
880-19544-5	B-19-6'-092122	Total/NA	Solid	8015 NM	
880-19544-6	B-21-5'-092122	Total/NA	Solid	8015 NM	
880-19544-7	B-22-6'-092122	Total/NA	Solid	8015 NM	
880-19544-8	B-23-5'-092122	Total/NA	Solid	8015 NM	
880-19544-9	B-24-5'-092122	Total/NA	Solid	8015 NM	
880-19544-10	SW-11-3'-092122	Total/NA	Solid	8015 NM	
880-19544-11	SW-15-3'-092122	Total/NA	Solid	8015 NM	
880-19544-12	B-2-4'-092122	Total/NA	Solid	8015 NM	
880-19544-13	B-6-3.5'-092122	Total/NA	Solid	8015 NM	
880-19544-14	B-7-4'-092122	Total/NA	Solid	8015 NM	
880-19544-15	B-8-4'-092122	Total/NA	Solid	8015 NM	
880-19544-16	B-15-7'-092122	Total/NA	Solid	8015 NM	
880-19544-17	B-20-4'-092122	Total/NA	Solid	8015 NM	

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

HPLC/IC

Leach Batch: 34660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Soluble	Solid	DI Leach	
890-2979-2	SW-2-2-091422	Soluble	Solid	DI Leach	
890-2979-3	SW-3-2-091422	Soluble	Solid	DI Leach	
890-2979-4	B-2-3-091422	Soluble	Solid	DI Leach	
890-2979-5	B-3-5-091422	Soluble	Solid	DI Leach	
890-2979-6	B-4-5-091422	Soluble	Solid	DI Leach	
890-2979-7	B-5-5-091422	Soluble	Solid	DI Leach	
890-2979-8	B-6-3-091422	Soluble	Solid	DI Leach	
890-2979-9	B-7-5-091422	Soluble	Solid	DI Leach	
890-2979-10	B-8-5-091422	Soluble	Solid	DI Leach	
890-2979-11	SW-4-2-091422	Soluble	Solid	DI Leach	
890-2979-12	B-4-3.5-091422	Soluble	Solid	DI Leach	
890-2979-13	B-9-6-091522	Soluble	Solid	DI Leach	
890-2979-14	B-10-6-091522	Soluble	Solid	DI Leach	
890-2979-15	B-11-6-091522	Soluble	Solid	DI Leach	
MB 880-34660/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34660/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34660/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2979-8 MS	B-6-3-091422	Soluble	Solid	DI Leach	
890-2979-8 MSD	B-6-3-091422	Soluble	Solid	DI Leach	

Analysis Batch: 34679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2979-1	SW-1-2-091422	Soluble	Solid	300.0	34660
890-2979-2	SW-2-2-091422	Soluble	Solid	300.0	34660
890-2979-3	SW-3-2-091422	Soluble	Solid	300.0	34660
890-2979-4	B-2-3-091422	Soluble	Solid	300.0	34660
890-2979-5	B-3-5-091422	Soluble	Solid	300.0	34660
890-2979-6	B-4-5-091422	Soluble	Solid	300.0	34660
890-2979-7	B-5-5-091422	Soluble	Solid	300.0	34660
890-2979-8	B-6-3-091422	Soluble	Solid	300.0	34660
890-2979-9	B-7-5-091422	Soluble	Solid	300.0	34660
890-2979-10	B-8-5-091422	Soluble	Solid	300.0	34660
890-2979-11	SW-4-2-091422	Soluble	Solid	300.0	34660
890-2979-12	B-4-3.5-091422	Soluble	Solid	300.0	34660
890-2979-13	B-9-6-091522	Soluble	Solid	300.0	34660
890-2979-14	B-10-6-091522	Soluble	Solid	300.0	34660
890-2979-15	B-11-6-091522	Soluble	Solid	300.0	34660
MB 880-34660/1-A	Method Blank	Soluble	Solid	300.0	34660
LCS 880-34660/2-A	Lab Control Sample	Soluble	Solid	300.0	34660
LCSD 880-34660/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34660
890-2979-8 MS	B-6-3-091422	Soluble	Solid	300.0	34660
890-2979-8 MSD	B-6-3-091422	Soluble	Solid	300.0	34660

Leach Batch: 34701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Soluble	Solid	DI Leach	
880-19347-2	B-13-6'-091522	Soluble	Solid	DI Leach	
880-19347-3	B-14-6'-091522	Soluble	Solid	DI Leach	
880-19347-4	B-15-6'-091622	Soluble	Solid	DI Leach	
880-19347-5	B-16-6'-091622	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

HPLC/IC (Continued)

Leach Batch: 34701 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-6	Sw-5-3'-091622	Soluble	Solid	DI Leach	
880-19347-7	Sw-6-3'-091622	Soluble	Solid	DI Leach	
880-19347-8	Sw-7-3'-091622	Soluble	Solid	DI Leach	
880-19347-9	Sw-10-3'-091622	Soluble	Solid	DI Leach	
MB 880-34701/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34701/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34701/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19347-1 MS	B-12-6'-091522	Soluble	Solid	DI Leach	
880-19347-1 MSD	B-12-6'-091522	Soluble	Solid	DI Leach	

Analysis Batch: 34702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19347-1	B-12-6'-091522	Soluble	Solid	300.0	34701
880-19347-2	B-13-6'-091522	Soluble	Solid	300.0	34701
880-19347-3	B-14-6'-091522	Soluble	Solid	300.0	34701
880-19347-4	B-15-6'-091622	Soluble	Solid	300.0	34701
880-19347-5	B-16-6'-091622	Soluble	Solid	300.0	34701
880-19347-6	Sw-5-3'-091622	Soluble	Solid	300.0	34701
880-19347-7	Sw-6-3'-091622	Soluble	Solid	300.0	34701
880-19347-8	Sw-7-3'-091622	Soluble	Solid	300.0	34701
880-19347-9	Sw-10-3'-091622	Soluble	Solid	300.0	34701
MB 880-34701/1-A	Method Blank	Soluble	Solid	300.0	34701
LCS 880-34701/2-A	Lab Control Sample	Soluble	Solid	300.0	34701
LCSD 880-34701/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34701
880-19347-1 MS	B-12-6'-091522	Soluble	Solid	300.0	34701
880-19347-1 MSD	B-12-6'-091522	Soluble	Solid	300.0	34701

Leach Batch: 35171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Soluble	Solid	DI Leach	
880-19544-2	B-18-4'-092022	Soluble	Solid	DI Leach	
880-19544-3	SW-12-2'-092022	Soluble	Solid	DI Leach	
880-19544-4	B-25-6'-092122	Soluble	Solid	DI Leach	
880-19544-5	B-19-6'-092122	Soluble	Solid	DI Leach	
880-19544-6	B-21-5'-092122	Soluble	Solid	DI Leach	
880-19544-7	B-22-6'-092122	Soluble	Solid	DI Leach	
880-19544-8	B-23-5'-092122	Soluble	Solid	DI Leach	
880-19544-9	B-24-5'-092122	Soluble	Solid	DI Leach	
880-19544-10	SW-11-3'-092122	Soluble	Solid	DI Leach	
880-19544-11	SW-15-3'-092122	Soluble	Solid	DI Leach	
880-19544-12	B-2-4'-092122	Soluble	Solid	DI Leach	
880-19544-13	B-6-3.5'-092122	Soluble	Solid	DI Leach	
880-19544-14	B-7-4'-092122	Soluble	Solid	DI Leach	
880-19544-15	B-8-4'-092122	Soluble	Solid	DI Leach	
880-19544-16	B-15-7'-092122	Soluble	Solid	DI Leach	
880-19544-17	B-20-4'-092122	Soluble	Solid	DI Leach	
MB 880-35171/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35171/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35171/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19544-8 MS	B-23-5'-092122	Soluble	Solid	DI Leach	
880-19544-8 MSD	B-23-5'-092122	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

HPLC/IC

Analysis Batch: 35184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19544-1	B-17-4'-092022	Soluble	Solid	300.0	35171
880-19544-2	B-18-4'-092022	Soluble	Solid	300.0	35171
880-19544-3	SW-12-2'-092022	Soluble	Solid	300.0	35171
880-19544-4	B-25-6'-092122	Soluble	Solid	300.0	35171
880-19544-5	B-19-6'-092122	Soluble	Solid	300.0	35171
880-19544-6	B-21-5'-092122	Soluble	Solid	300.0	35171
880-19544-7	B-22-6'-092122	Soluble	Solid	300.0	35171
880-19544-8	B-23-5'-092122	Soluble	Solid	300.0	35171
880-19544-9	B-24-5'-092122	Soluble	Solid	300.0	35171
880-19544-10	SW-11-3'-092122	Soluble	Solid	300.0	35171
880-19544-11	SW-15-3'-092122	Soluble	Solid	300.0	35171
880-19544-12	B-2-4'-092122	Soluble	Solid	300.0	35171
880-19544-13	B-6-3.5'-092122	Soluble	Solid	300.0	35171
880-19544-14	B-7-4'-092122	Soluble	Solid	300.0	35171
880-19544-15	B-8-4'-092122	Soluble	Solid	300.0	35171
880-19544-16	B-15-7'-092122	Soluble	Solid	300.0	35171
880-19544-17	B-20-4'-092122	Soluble	Solid	300.0	35171
MB 880-35171/1-A	Method Blank	Soluble	Solid	300.0	35171
LCS 880-35171/2-A	Lab Control Sample	Soluble	Solid	300.0	35171
LCSD 880-35171/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35171
880-19544-8 MS	B-23-5'-092122	Soluble	Solid	300.0	35171
880-19544-8 MSD	B-23-5'-092122	Soluble	Solid	300.0	35171

Leach Batch: 35261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Soluble	Solid	DI Leach	
880-19583-2	SW-9-3'-092222	Soluble	Solid	DI Leach	
880-19583-3	SW-13-3'-092222	Soluble	Solid	DI Leach	
880-19583-4	SW-14-3'-092222	Soluble	Solid	DI Leach	
880-19583-5	SW-16-3'-092222	Soluble	Solid	DI Leach	
880-19583-6	B-26-6'-092222	Soluble	Solid	DI Leach	
880-19583-7	B-27-6'-092222	Soluble	Solid	DI Leach	
MB 880-35261/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35261/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35261/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19583-1 MS	SW-8-3'-092222	Soluble	Solid	DI Leach	
880-19583-1 MSD	SW-8-3'-092222	Soluble	Solid	DI Leach	

Analysis Batch: 35266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1	SW-8-3'-092222	Soluble	Solid	300.0	35261
880-19583-2	SW-9-3'-092222	Soluble	Solid	300.0	35261
880-19583-3	SW-13-3'-092222	Soluble	Solid	300.0	35261
880-19583-4	SW-14-3'-092222	Soluble	Solid	300.0	35261
880-19583-5	SW-16-3'-092222	Soluble	Solid	300.0	35261
880-19583-6	B-26-6'-092222	Soluble	Solid	300.0	35261
880-19583-7	B-27-6'-092222	Soluble	Solid	300.0	35261
MB 880-35261/1-A	Method Blank	Soluble	Solid	300.0	35261
LCS 880-35261/2-A	Lab Control Sample	Soluble	Solid	300.0	35261
LCSD 880-35261/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35261
880-19583-1 MS	SW-8-3'-092222	Soluble	Solid	300.0	35261

Eurofins Midland

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

HPLC/IC (Continued)

Analysis Batch: 35266 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19583-1 MSD	SW-8-3'-092222	Soluble	Solid	300.0	35261

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

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-12-6'-091522

Lab Sample ID: 880-19347-1

Date Collected: 09/15/22 15:00

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	35366	09/26/22 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35357	09/26/22 16:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 11:11	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	34702	09/16/22 22:14	CH	EET MID

Client Sample ID: B-13-6'-091522

Lab Sample ID: 880-19347-2

Date Collected: 09/15/22 15:05

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	35366	09/26/22 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35357	09/26/22 17:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 12:15	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34702	09/19/22 12:19	CH	EET MID

Client Sample ID: B-14-6'-091522

Lab Sample ID: 880-19347-3

Date Collected: 09/15/22 15:10

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	35366	09/26/22 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35357	09/26/22 17:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 12:37	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34702	09/19/22 12:26	CH	EET MID

Client Sample ID: B-15-6'-091622

Lab Sample ID: 880-19347-4

Date Collected: 09/16/22 10:00

Matrix: Solid

Date Received: 09/16/22 15:45

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	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	34702	09/16/22 22:51	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-16-6'-091622

Lab Sample ID: 880-19347-5

Date Collected: 09/16/22 10:05

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	35366	09/26/22 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35357	09/26/22 17:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 12:59	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34702	09/19/22 12:33	CH	EET MID

Client Sample ID: Sw-5-3'-091622

Lab Sample ID: 880-19347-6

Date Collected: 09/16/22 10:10

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35366	09/26/22 09:51	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35357	09/26/22 18:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 13:20	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34702	09/19/22 12:41	CH	EET MID

Client Sample ID: Sw-6-3'-091622

Lab Sample ID: 880-19347-7

Date Collected: 09/16/22 10:15

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35745	09/30/22 07:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35744	09/30/22 10:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 13:42	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	34702	09/16/22 23:29	CH	EET MID

Client Sample ID: Sw-7-3'-091622

Lab Sample ID: 880-19347-8

Date Collected: 09/16/22 10:20

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35209	09/27/22 16:49	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35466	09/28/22 09:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: Sw-7-3'-091622

Lab Sample ID: 880-19347-8

Date Collected: 09/16/22 10:20

Matrix: Solid

Date Received: 09/16/22 15:45

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			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 14:04	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34702	09/19/22 12:48	CH	EET MID

Client Sample ID: Sw-10-3'-091622

Lab Sample ID: 880-19347-9

Date Collected: 09/16/22 10:25

Matrix: Solid

Date Received: 09/16/22 15:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	35209	09/27/22 16:49	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35466	09/28/22 10:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35487	09/27/22 09:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35158	09/22/22 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34983	09/20/22 15:30	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35011	09/21/22 14:25	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	34701	09/16/22 17:45	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34702	09/19/22 12:56	CH	EET MID

Client Sample ID: B-17-4'-092022

Lab Sample ID: 880-19544-1

Date Collected: 09/20/22 12:00

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	35691	09/29/22 11:39	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35815	10/02/22 18:13	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 13:31	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/23/22 11:00	CH	EET MID

Client Sample ID: B-18-4'-092022

Lab Sample ID: 880-19544-2

Date Collected: 09/20/22 12:30

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35691	09/29/22 11:39	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35815	10/02/22 18:33	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 13:52	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-18-4'-092022

Lab Sample ID: 880-19544-2

Date Collected: 09/20/22 12:30

Matrix: Solid

Date Received: 09/22/22 10:49

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	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/23/22 11:04	CH	EET MID

Client Sample ID: SW-12-2'-092022

Lab Sample ID: 880-19544-3

Date Collected: 09/20/22 12:45

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	35691	09/29/22 11:39	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35815	10/02/22 18:54	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 14:14	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/23/22 11:09	CH	EET MID

Client Sample ID: B-25-6'-092122

Lab Sample ID: 880-19544-4

Date Collected: 09/21/22 11:00

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	35997	10/03/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35920	10/04/22 04:33	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 14:35	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/22/22 14:44	CH	EET MID

Client Sample ID: B-19-6'-092122

Lab Sample ID: 880-19544-5

Date Collected: 09/21/22 10:00

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35997	10/03/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35920	10/04/22 04:54	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 14:57	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	35184	09/22/22 14:49	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-21-5'-092122**Lab Sample ID: 880-19544-6****Date Collected: 09/21/22 10:10****Matrix: Solid****Date Received: 09/22/22 10:49**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 03:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 15:18	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/22/22 14:54	CH	EET MID

Client Sample ID: B-22-6'-092122**Lab Sample ID: 880-19544-7****Date Collected: 09/21/22 10:15****Matrix: Solid****Date Received: 09/22/22 10:49**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 03:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 15:39	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 14:59	CH	EET MID

Client Sample ID: B-23-5'-092122**Lab Sample ID: 880-19544-8****Date Collected: 09/21/22 10:20****Matrix: Solid****Date Received: 09/22/22 10:49**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 03:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 16:00	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 15:04	CH	EET MID

Client Sample ID: B-24-5'-092122**Lab Sample ID: 880-19544-9****Date Collected: 09/21/22 10:30****Matrix: Solid****Date Received: 09/22/22 10:49**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 04:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-24-5'-092122

Lab Sample ID: 880-19544-9

Date Collected: 09/21/22 10:30

Matrix: Solid

Date Received: 09/22/22 10:49

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			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 16:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 15:18	CH	EET MID

Client Sample ID: SW-11-3'-092122

Lab Sample ID: 880-19544-10

Date Collected: 09/21/22 11:10

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 04:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 17:04	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/23/22 11:14	CH	EET MID

Client Sample ID: SW-15-3'-092122

Lab Sample ID: 880-19544-11

Date Collected: 09/21/22 11:20

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 04:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 17:25	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	35184	09/22/22 15:38	CH	EET MID

Client Sample ID: B-2-4'-092122

Lab Sample ID: 880-19544-12

Date Collected: 09/21/22 09:00

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 05:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 17:46	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-2-4'-092122

Lab Sample ID: 880-19544-12

Date Collected: 09/21/22 09:00

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 15:43	CH	EET MID

Client Sample ID: B-6-3.5'-092122

Lab Sample ID: 880-19544-13

Date Collected: 09/21/22 09:05

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 05:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 18:08	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/22/22 15:47	CH	EET MID

Client Sample ID: B-7-4'-092122

Lab Sample ID: 880-19544-14

Date Collected: 09/21/22 12:30

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 07:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 18:29	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 15:52	CH	EET MID

Client Sample ID: B-8-4'-092122

Lab Sample ID: 880-19544-15

Date Collected: 09/21/22 12:40

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 07:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 18:50	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 15:57	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-15-7'-092122

Lab Sample ID: 880-19544-16

Date Collected: 09/21/22 12:50

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 08:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 19:11	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	35184	09/22/22 16:02	CH	EET MID

Client Sample ID: B-20-4'-092122

Lab Sample ID: 880-19544-17

Date Collected: 09/21/22 13:30

Matrix: Solid

Date Received: 09/22/22 10:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	36054	10/04/22 10:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36057	10/05/22 08:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			35909	10/03/22 08:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35566	09/28/22 09:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35419	09/26/22 13:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35460	09/27/22 19:33	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	35171	09/22/22 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35184	09/23/22 11:19	CH	EET MID

Client Sample ID: SW-8-3'-092222

Lab Sample ID: 880-19583-1

Date Collected: 09/22/22 12:00

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 10:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35279	09/23/22 13:45	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35324	09/25/22 03:38	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 12:21	SMC	EET MID

Client Sample ID: SW-9-3'-092222

Lab Sample ID: 880-19583-2

Date Collected: 09/22/22 12:10

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 10:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-9-3'-092222

Lab Sample ID: 880-19583-2

Date Collected: 09/22/22 12:10

Matrix: Solid

Date Received: 09/23/22 10:15

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			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35279	09/23/22 13:45	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35324	09/25/22 03:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 12:35	SMC	EET MID

Client Sample ID: SW-13-3'-092222

Lab Sample ID: 880-19583-3

Date Collected: 09/22/22 12:20

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 11:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35279	09/23/22 13:45	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35324	09/25/22 04:20	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 12:40	SMC	EET MID

Client Sample ID: SW-14-3'-092222

Lab Sample ID: 880-19583-4

Date Collected: 09/22/22 12:30

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 11:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35279	09/23/22 13:45	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35324	09/25/22 04:41	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 12:45	SMC	EET MID

Client Sample ID: SW-16-3'-092222

Lab Sample ID: 880-19583-5

Date Collected: 09/22/22 12:40

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 11:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35279	09/23/22 13:45	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35324	09/25/22 05:03	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-16-3'-092222

Lab Sample ID: 880-19583-5

Date Collected: 09/22/22 12:40

Matrix: Solid

Date Received: 09/23/22 10:15

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	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 12:50	SMC	EET MID

Client Sample ID: B-26-6'-092222

Lab Sample ID: 880-19583-6

Date Collected: 09/22/22 12:50

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 12:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35279	09/23/22 13:45	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35324	09/25/22 05:24	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 13:04	SMC	EET MID

Client Sample ID: B-27-6'-092222

Lab Sample ID: 880-19583-7

Date Collected: 09/22/22 13:00

Matrix: Solid

Date Received: 09/23/22 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36058	10/04/22 13:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36122	10/05/22 12:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36199	10/05/22 15:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			35415	09/26/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35422	09/26/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35341	09/27/22 01:29	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	35261	09/23/22 10:28	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35266	09/23/22 13:09	SMC	EET MID

Client Sample ID: SW-1-2-091422

Lab Sample ID: 890-2979-1

Date Collected: 09/14/22 14:00

Matrix: Solid

Date Received: 09/15/22 12:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	35157	09/22/22 10:27	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35151	09/22/22 23:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	34938	09/20/22 11:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34885	09/20/22 22:58	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 13:39	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: SW-2-2-091422

Lab Sample ID: 890-2979-2

Date Collected: 09/14/22 14:05

Matrix: Solid

Date Received: 09/15/22 12:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	34801	09/19/22 10:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/19/22 16:14	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34673	09/16/22 11:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34714	09/18/22 14:06	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 13:44	CH	EET MID

Client Sample ID: SW-3-2-091422

Lab Sample ID: 890-2979-3

Date Collected: 09/14/22 14:10

Matrix: Solid

Date Received: 09/15/22 12:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34801	09/19/22 10:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/19/22 16:35	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34673	09/16/22 11:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34714	09/18/22 14:28	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		1			34679	09/16/22 13:58	CH	EET MID

Client Sample ID: B-2-3-091422

Lab Sample ID: 890-2979-4

Date Collected: 09/14/22 14:20

Matrix: Solid

Date Received: 09/15/22 12:48

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	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 14:03	CH	EET MID

Client Sample ID: B-3-5-091422

Lab Sample ID: 890-2979-5

Date Collected: 09/14/22 14:30

Matrix: Solid

Date Received: 09/15/22 12:48

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	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 14:08	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-4-5-091422**Lab Sample ID: 890-2979-6****Date Collected: 09/14/22 14:40****Matrix: Solid****Date Received: 09/15/22 12:48**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	34801	09/19/22 10:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/19/22 17:36	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34673	09/16/22 11:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34714	09/18/22 15:33	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		1			34679	09/16/22 15:31	CH	EET MID

Client Sample ID: B-5-5-091422**Lab Sample ID: 890-2979-7****Date Collected: 09/14/22 14:50****Matrix: Solid****Date Received: 09/15/22 12:48**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	34801	09/19/22 10:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/19/22 17:56	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34673	09/16/22 11:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34714	09/18/22 15:55	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 14:18	CH	EET MID

Client Sample ID: B-6-3-091422**Lab Sample ID: 890-2979-8****Date Collected: 09/14/22 15:00****Matrix: Solid****Date Received: 09/15/22 12:48**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 14:23	CH	EET MID

Client Sample ID: B-7-5-091422**Lab Sample ID: 890-2979-9****Date Collected: 09/14/22 15:10****Matrix: Solid****Date Received: 09/15/22 12:48**

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	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 14:37	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-8-5-091422

Lab Sample ID: 890-2979-10

Date Collected: 09/14/22 15:20

Matrix: Solid

Date Received: 09/15/22 12:48

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	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 14:42	CH	EET MID

Client Sample ID: SW-4-2-091422

Lab Sample ID: 890-2979-11

Date Collected: 09/14/22 14:15

Matrix: Solid

Date Received: 09/15/22 12:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	34801	09/19/22 10:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/19/22 19:18	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34673	09/16/22 11:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34714	09/18/22 17:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		5			34679	09/16/22 14:57	CH	EET MID

Client Sample ID: B-4-3.5-091422

Lab Sample ID: 890-2979-12

Date Collected: 09/15/22 11:00

Matrix: Solid

Date Received: 09/15/22 12:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35092	09/23/22 08:21	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35226	09/23/22 14:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34938	09/20/22 11:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34885	09/20/22 23:19	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		10			34679	09/16/22 15:01	CH	EET MID

Client Sample ID: B-9-6-091522

Lab Sample ID: 890-2979-13

Date Collected: 09/15/22 11:05

Matrix: Solid

Date Received: 09/15/22 12:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	35092	09/23/22 08:21	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35226	09/23/22 14:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34938	09/20/22 11:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34885	09/20/22 23:41	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		1			34679	09/16/22 15:06	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Client Sample ID: B-10-6-091522
Date Collected: 09/15/22 11:10
Date Received: 09/15/22 12:48

Lab Sample ID: 890-2979-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	35198	09/22/22 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35227	09/24/22 02:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34938	09/20/22 11:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34885	09/21/22 00:02	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		1			34679	09/16/22 15:35	CH	EET MID

Client Sample ID: B-11-6-091522
Date Collected: 09/15/22 11:15
Date Received: 09/15/22 12:48

Lab Sample ID: 890-2979-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	35198	09/22/22 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35227	09/24/22 02:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			34900	09/20/22 09:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34862	09/19/22 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34938	09/20/22 11:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34885	09/21/22 00:45	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	34660	09/16/22 10:31	CH	EET MID
Soluble	Analysis	300.0		1			34679	09/16/22 15:40	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

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

Protocol References:

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Asio Otis 30133378

Job ID: 880-19347-1
SDG: Eddy County

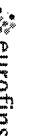
Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-19347-1	B-12-6'-091522	Solid	09/15/22 15:00	09/16/22 15:45
880-19347-2	B-13-6'-091522	Solid	09/15/22 15:05	09/16/22 15:45
880-19347-3	B-14-6'-091522	Solid	09/15/22 15:10	09/16/22 15:45
880-19347-4	B-15-6'-091622	Solid	09/16/22 10:00	09/16/22 15:45
880-19347-5	B-16-6'-091622	Solid	09/16/22 10:05	09/16/22 15:45
880-19347-6	Sw-5-3'-091622	Solid	09/16/22 10:10	09/16/22 15:45
880-19347-7	Sw-6-3'-091622	Solid	09/16/22 10:15	09/16/22 15:45
880-19347-8	Sw-7-3'-091622	Solid	09/16/22 10:20	09/16/22 15:45
880-19347-9	Sw-10-3'-091622	Solid	09/16/22 10:25	09/16/22 15:45
880-19544-1	B-17-4'-092022	Solid	09/20/22 12:00	09/22/22 10:49
880-19544-2	B-18-4'-092022	Solid	09/20/22 12:30	09/22/22 10:49
880-19544-3	SW-12-2'-092022	Solid	09/20/22 12:45	09/22/22 10:49
880-19544-4	B-25-6'-092122	Solid	09/21/22 11:00	09/22/22 10:49
880-19544-5	B-19-6'-092122	Solid	09/21/22 10:00	09/22/22 10:49
880-19544-6	B-21-5'-092122	Solid	09/21/22 10:10	09/22/22 10:49
880-19544-7	B-22-6'-092122	Solid	09/21/22 10:15	09/22/22 10:49
880-19544-8	B-23-5'-092122	Solid	09/21/22 10:20	09/22/22 10:49
880-19544-9	B-24-5'-092122	Solid	09/21/22 10:30	09/22/22 10:49
880-19544-10	SW-11-3'-092122	Solid	09/21/22 11:10	09/22/22 10:49
880-19544-11	SW-15-3'-092122	Solid	09/21/22 11:20	09/22/22 10:49
880-19544-12	B-2-4'-092122	Solid	09/21/22 09:00	09/22/22 10:49
880-19544-13	B-6-3.5'-092122	Solid	09/21/22 09:05	09/22/22 10:49
880-19544-14	B-7-4'-092122	Solid	09/21/22 12:30	09/22/22 10:49
880-19544-15	B-8-4'-092122	Solid	09/21/22 12:40	09/22/22 10:49
880-19544-16	B-15-7'-092122	Solid	09/21/22 12:50	09/22/22 10:49
880-19544-17	B-20-4'-092122	Solid	09/21/22 13:30	09/22/22 10:49
880-19583-1	SW-8-3'-092222	Solid	09/22/22 12:00	09/23/22 10:15
880-19583-2	SW-9-3'-092222	Solid	09/22/22 12:10	09/23/22 10:15
880-19583-3	SW-13-3'-092222	Solid	09/22/22 12:20	09/23/22 10:15
880-19583-4	SW-14-3'-092222	Solid	09/22/22 12:30	09/23/22 10:15
880-19583-5	SW-16-3'-092222	Solid	09/22/22 12:40	09/23/22 10:15
880-19583-6	B-26-6'-092222	Solid	09/22/22 12:50	09/23/22 10:15
880-19583-7	B-27-6'-092222	Solid	09/22/22 13:00	09/23/22 10:15
890-2979-1	SW-1-2-091422	Solid	09/14/22 14:00	09/15/22 12:48
890-2979-2	SW-2-2-091422	Solid	09/14/22 14:05	09/15/22 12:48
890-2979-3	SW-3-2-091422	Solid	09/14/22 14:10	09/15/22 12:48
890-2979-4	B-2-3-091422	Solid	09/14/22 14:20	09/15/22 12:48
890-2979-5	B-3-5-091422	Solid	09/14/22 14:30	09/15/22 12:48
890-2979-6	B-4-5-091422	Solid	09/14/22 14:40	09/15/22 12:48
890-2979-7	B-5-5-091422	Solid	09/14/22 14:50	09/15/22 12:48
890-2979-8	B-6-3-091422	Solid	09/14/22 15:00	09/15/22 12:48
890-2979-9	B-7-5-091422	Solid	09/14/22 15:10	09/15/22 12:48
890-2979-10	B-8-5-091422	Solid	09/14/22 15:20	09/15/22 12:48
890-2979-11	SW-4-2-091422	Solid	09/14/22 14:15	09/15/22 12:48
890-2979-12	B-4-3.5-091422	Solid	09/15/22 11:00	09/15/22 12:48
890-2979-13	B-9-6-091522	Solid	09/15/22 11:05	09/15/22 12:48
890-2979-14	B-10-6-091522	Solid	09/15/22 11:10	09/15/22 12:48
890-2979-15	B-11-6-091522	Solid	09/15/22 11:15	09/15/22 12:48

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Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Test Inc
America

Client Information		Sampler	Lab PM	Carrier Tracking No(s)	COC No:
Client Contact: Justin Nixon		Phone: 575-246-9547	Builes John		890-938-355
Company: ARCADIS US Inc		PMSID	E-Mail: John.Builes@eurofinsus.com	State of Origin: NM	Page 1 of 1
Address: 1004 North Big Spring Suite 300		Due Date Requested	Analysis Requested		
City: Midland	TX 79701	TAT Requested (days): 24 hours	CI-		
State Zip	Compliance Project: A Yes A No	PO #	Perform MS/MSD (Yes or No)		
Phone	Purchase Order not required	WO #	300_ORGFM_28D, 8015MOD_NM, 8021B		
Email: Justin.Nixon@arcadis.com	Project #		Field Filtered Sample (Yes or No)		
Project Name: Asio Oils 30133378	89000100		Perform MS/MSD (Yes or No)		
Site: EDD County	SSOW#		Total Number of containers		
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Weaver, Sealed, Ovens/100L, Biotinase Anal)
B-12-6'-091522	9-15-22	1500	C		Solid
B-13-6'-091522	9-15-22	1505			Solid
B-14-6'-091522	9-15-22	1510			Solid
B-15-6'-091622	9-16-22	1600			Solid
B-16-6'-091622	9-16-22	1605			Solid
Su-5-3'-091622	9-16-22	1010			Solid
Su-6-3'-091622	9-16-22	1015			Solid
Su-7-3'-091622	9-16-22	1020			Solid
Su-10-3'-091622	9-16-22	1025			Solid
880-19347 Chain of Custody					
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological					
Deliverable Requested I II III IV Other (specify)					
Empty Kit Relinquished by		Date	Time		
Relinquished by		Date/Time	Received by		
Relinquished by		Date/Time	Received by		
Relinquished by		Date/Time	Received by		
Custody Seals Intact		Custody Seal No			
A Yes A No		Cooler Temperature(s) °C and Other Remarks			
		S-2/S-4			
Special Instructions/Note hold 15 TEX + 704					
Preservation Codes A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Anchior H Ascorbic Acid I Ice J DI Water K EDTA L EDA M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecylhydrate U Acetone V MCAA W pH 4.5 Y Trizma Z other (specify)					

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 880-19347-1

SDG Number: Eddy County

Login Number: 19347

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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Justin Nixon
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 4/25/2023 11:18:56 AM

JOB DESCRIPTION

Asio Otis 30133378
SDG NUMBER Eddy County, NM

JOB NUMBER

880-27391-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.
Released to Imaging: 4/11/2024 11:12:11 AM

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
4/25/2023 11:18:56 AM

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

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Laboratory Job ID: 880-27391-1
SDG: Eddy County, NM

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Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Job ID: 880-27391-1

Laboratory: Eurofins Midland

Narrative	Job Narrative 880-27391-1
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Receipt

The samples were received on 4/19/2023 5:06 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 4.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: T-6-HA-S-1'-041823 (880-27391-1), T-6-HA-S-2'-041823 (880-27391-2), T-7-HA-S-1'-041823 (880-27391-3) and T-7-HA-S-2'-041823 (880-27391-4).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-51536/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-51536 and analytical batch 880-51575 recovered outside control limits for the following analytes: m-Xylene & p-Xylene and o-Xylene.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-51651/1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

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Client Sample Results

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Client Sample ID: T-6-HA-S-1'-041823

Lab Sample ID: 880-27391-1

Date Collected: 04/18/23 13:50

Matrix: Solid

Date Received: 04/19/23 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/20/23 09:00	04/20/23 15:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/20/23 09:00	04/20/23 15:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/20/23 09:00	04/20/23 15:01	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398		mg/Kg		04/20/23 09:00	04/20/23 15:01	1
o-Xylene	<0.00199	U *1	0.00199		mg/Kg		04/20/23 09:00	04/20/23 15:01	1
Xylenes, Total	<0.00398	U *1	0.00398		mg/Kg		04/20/23 09:00	04/20/23 15:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130				04/20/23 09:00	04/20/23 15:01	1
1,4-Difluorobenzene (Surr)	105		70 - 130				04/20/23 09:00	04/20/23 15:01	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/21/23 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/23 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/23 16:48	04/21/23 11:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/23 16:48	04/21/23 11:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/23 16:48	04/21/23 11:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				04/20/23 16:48	04/21/23 11:09	1
o-Terphenyl	107		70 - 130				04/20/23 16:48	04/21/23 11:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15500		248		mg/Kg			04/24/23 18:10	50

Client Sample ID: T-6-HA-S-2'-041823

Lab Sample ID: 880-27391-2

Date Collected: 04/18/23 14:00

Matrix: Solid

Date Received: 04/19/23 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/20/23 09:00	04/20/23 16:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/20/23 09:00	04/20/23 16:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/20/23 09:00	04/20/23 16:24	1
m-Xylene & p-Xylene	<0.00399	U *1	0.00399		mg/Kg		04/20/23 09:00	04/20/23 16:24	1
o-Xylene	<0.00200	U *1	0.00200		mg/Kg		04/20/23 09:00	04/20/23 16:24	1
Xylenes, Total	<0.00399	U *1	0.00399		mg/Kg		04/20/23 09:00	04/20/23 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				04/20/23 09:00	04/20/23 16:24	1
1,4-Difluorobenzene (Surr)	78		70 - 130				04/20/23 09:00	04/20/23 16:24	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Client Sample ID: T-6-HA-S-2'-041823

Lab Sample ID: 880-27391-2

Date Collected: 04/18/23 14:00

Matrix: Solid

Date Received: 04/19/23 17:06

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/21/23 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/23 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/23 16:48	04/21/23 12:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/23 16:48	04/21/23 12:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/23 16:48	04/21/23 12:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130				04/20/23 16:48	04/21/23 12:14	1
o-Terphenyl	111		70 - 130				04/20/23 16:48	04/21/23 12:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13700		249		mg/Kg			04/24/23 18:15	50

Client Sample ID: T-7-HA-S-1'-041823

Lab Sample ID: 880-27391-3

Date Collected: 04/18/23 14:10

Matrix: Solid

Date Received: 04/19/23 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/20/23 09:00	04/20/23 17:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/20/23 09:00	04/20/23 17:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/20/23 09:00	04/20/23 17:15	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398		mg/Kg		04/20/23 09:00	04/20/23 17:15	1
o-Xylene	<0.00199	U *1	0.00199		mg/Kg		04/20/23 09:00	04/20/23 17:15	1
Xylenes, Total	<0.00398	U *1	0.00398		mg/Kg		04/20/23 09:00	04/20/23 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130				04/20/23 09:00	04/20/23 17:15	1
1,4-Difluorobenzene (Surr)	111		70 - 130				04/20/23 09:00	04/20/23 17:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/21/23 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			04/21/23 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/20/23 16:48	04/21/23 12:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/20/23 16:48	04/21/23 12:36	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Client Sample ID: T-7-HA-S-1'-041823

Lab Sample ID: 880-27391-3

Date Collected: 04/18/23 14:10

Matrix: Solid

Date Received: 04/19/23 17:06

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)	<49.8	U	49.8		mg/Kg		04/20/23 16:48	04/21/23 12:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130				04/20/23 16:48	04/21/23 12:36	1
o-Terphenyl	112		70 - 130				04/20/23 16:48	04/21/23 12:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11400		99.2		mg/Kg			04/24/23 18:20	20

Client Sample ID: T-7-HA-S-2'-041823

Lab Sample ID: 880-27391-4

Date Collected: 04/18/23 14:20

Matrix: Solid

Date Received: 04/19/23 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/20/23 09:00	04/20/23 17:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/20/23 09:00	04/20/23 17:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/20/23 09:00	04/20/23 17:35	1
m-Xylene & p-Xylene	<0.00396	U *1	0.00396		mg/Kg		04/20/23 09:00	04/20/23 17:35	1
o-Xylene	<0.00198	U *1	0.00198		mg/Kg		04/20/23 09:00	04/20/23 17:35	1
Xylenes, Total	<0.00396	U *1	0.00396		mg/Kg		04/20/23 09:00	04/20/23 17:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				04/20/23 09:00	04/20/23 17:35	1
1,4-Difluorobenzene (Surr)	101		70 - 130				04/20/23 09:00	04/20/23 17:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			04/21/23 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			04/21/23 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/20/23 16:48	04/21/23 12:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/20/23 16:48	04/21/23 12:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/20/23 16:48	04/21/23 12:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				04/20/23 16:48	04/21/23 12:58	1
o-Terphenyl	115		70 - 130				04/20/23 16:48	04/21/23 12:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11900		100		mg/Kg			04/24/23 18:25	20

Eurofins Midland

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-27391-1	T-6-HA-S-1'-041823	129	105
880-27391-2	T-6-HA-S-2'-041823	91	78
880-27391-3	T-7-HA-S-1'-041823	129	111
880-27391-4	T-7-HA-S-2'-041823	109	101
LCS 880-51536/1-A	Lab Control Sample	138 S1+	104
LCSD 880-51536/2-A	Lab Control Sample Dup	92	115
MB 880-51536/5-A	Method Blank	75	83
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-27391-1	T-6-HA-S-1'-041823	109	107
880-27391-1 MS	T-6-HA-S-1'-041823	120	106
880-27391-1 MSD	T-6-HA-S-1'-041823	115	101
880-27391-2	T-6-HA-S-2'-041823	115	111
880-27391-3	T-7-HA-S-1'-041823	116	112
880-27391-4	T-7-HA-S-2'-041823	120	115
LCS 880-51651/2-A	Lab Control Sample	95	91
LCSD 880-51651/3-A	Lab Control Sample Dup	95	89
MB 880-51651/1-A	Method Blank	136 S1+	141 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-51536/5-A

Matrix: Solid

Analysis Batch: 51575

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 51536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/19/23 16:35	04/20/23 11:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/19/23 16:35	04/20/23 11:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/19/23 16:35	04/20/23 11:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/19/23 16:35	04/20/23 11:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/19/23 16:35	04/20/23 11:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/19/23 16:35	04/20/23 11:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	04/19/23 16:35	04/20/23 11:35	1
1,4-Difluorobenzene (Surr)	83		70 - 130	04/19/23 16:35	04/20/23 11:35	1

Lab Sample ID: LCS 880-51536/1-A

Matrix: Solid

Analysis Batch: 51575

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 51536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09347		mg/Kg		93	70 - 130
Toluene	0.100	0.09167		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.1117		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2406		mg/Kg		120	70 - 130
o-Xylene	0.100	0.1214		mg/Kg		121	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-51536/2-A

Matrix: Solid

Analysis Batch: 51575

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 51536

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1003		mg/Kg		100	70 - 130	7	35
Toluene	0.100	0.08359		mg/Kg		84	70 - 130	9	35
Ethylbenzene	0.100	0.07821		mg/Kg		78	70 - 130	35	35
m-Xylene & p-Xylene	0.200	0.1578	*1	mg/Kg		79	70 - 130	42	35
o-Xylene	0.100	0.07946	*1	mg/Kg		79	70 - 130	42	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

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QC Sample Results

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

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

Lab Sample ID: MB 880-51651/1-A

Matrix: Solid

Analysis Batch: 51659

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 51651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/23 16:48	04/21/23 08:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/23 16:48	04/21/23 08:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/23 16:48	04/21/23 08:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130				04/20/23 16:48	04/21/23 08:19	1
o-Terphenyl	141	S1+	70 - 130				04/20/23 16:48	04/21/23 08:19	1

Lab Sample ID: LCS 880-51651/2-A

Matrix: Solid

Analysis Batch: 51659

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 51651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	850.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	835.0		mg/Kg		83	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	95		70 - 130				
o-Terphenyl	91		70 - 130				

Lab Sample ID: LCSD 880-51651/3-A

Matrix: Solid

Analysis Batch: 51659

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 51651

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	843.5		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	805.6		mg/Kg		81	70 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	95		70 - 130						
o-Terphenyl	89		70 - 130						

Lab Sample ID: 880-27391-1 MS

Matrix: Solid

Analysis Batch: 51659

Client Sample ID: T-6-HA-S-1'-041823

Prep Type: Total/NA

Prep Batch: 51651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	996.3		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1067		mg/Kg		104	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

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

Lab Sample ID: 880-27391-1 MS
Matrix: Solid
Analysis Batch: 51659

Client Sample ID: T-6-HA-S-1'-041823
Prep Type: Total/NA
Prep Batch: 51651

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 880-27391-1 MSD
Matrix: Solid
Analysis Batch: 51659

Client Sample ID: T-6-HA-S-1'-041823
Prep Type: Total/NA
Prep Batch: 51651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1072		mg/Kg		105	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1008		mg/Kg		99	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	115		70 - 130								
o-Terphenyl	101		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-51744/1-A
Matrix: Solid
Analysis Batch: 51878

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/24/23 13:11	1

Lab Sample ID: LCS 880-51744/2-A
Matrix: Solid
Analysis Batch: 51878

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	271.9		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-51744/3-A
Matrix: Solid
Analysis Batch: 51878

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	271.2		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

GC VOA

Prep Batch: 51536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Total/NA	Solid	5035	
880-27391-2	T-6-HA-S-2'-041823	Total/NA	Solid	5035	
880-27391-3	T-7-HA-S-1'-041823	Total/NA	Solid	5035	
880-27391-4	T-7-HA-S-2'-041823	Total/NA	Solid	5035	
MB 880-51536/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-51536/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-51536/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 51575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Total/NA	Solid	8021B	51536
880-27391-2	T-6-HA-S-2'-041823	Total/NA	Solid	8021B	51536
880-27391-3	T-7-HA-S-1'-041823	Total/NA	Solid	8021B	51536
880-27391-4	T-7-HA-S-2'-041823	Total/NA	Solid	8021B	51536
MB 880-51536/5-A	Method Blank	Total/NA	Solid	8021B	51536
LCS 880-51536/1-A	Lab Control Sample	Total/NA	Solid	8021B	51536
LCSD 880-51536/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	51536

Analysis Batch: 51729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Total/NA	Solid	Total BTEX	
880-27391-2	T-6-HA-S-2'-041823	Total/NA	Solid	Total BTEX	
880-27391-3	T-7-HA-S-1'-041823	Total/NA	Solid	Total BTEX	
880-27391-4	T-7-HA-S-2'-041823	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 51651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Total/NA	Solid	8015NM Prep	
880-27391-2	T-6-HA-S-2'-041823	Total/NA	Solid	8015NM Prep	
880-27391-3	T-7-HA-S-1'-041823	Total/NA	Solid	8015NM Prep	
880-27391-4	T-7-HA-S-2'-041823	Total/NA	Solid	8015NM Prep	
MB 880-51651/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-51651/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-51651/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27391-1 MS	T-6-HA-S-1'-041823	Total/NA	Solid	8015NM Prep	
880-27391-1 MSD	T-6-HA-S-1'-041823	Total/NA	Solid	8015NM Prep	

Analysis Batch: 51659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Total/NA	Solid	8015B NM	51651
880-27391-2	T-6-HA-S-2'-041823	Total/NA	Solid	8015B NM	51651
880-27391-3	T-7-HA-S-1'-041823	Total/NA	Solid	8015B NM	51651
880-27391-4	T-7-HA-S-2'-041823	Total/NA	Solid	8015B NM	51651
MB 880-51651/1-A	Method Blank	Total/NA	Solid	8015B NM	51651
LCS 880-51651/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	51651
LCSD 880-51651/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	51651
880-27391-1 MS	T-6-HA-S-1'-041823	Total/NA	Solid	8015B NM	51651
880-27391-1 MSD	T-6-HA-S-1'-041823	Total/NA	Solid	8015B NM	51651

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QC Association Summary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

GC Semi VOA

Analysis Batch: 51762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Total/NA	Solid	8015 NM	
880-27391-2	T-6-HA-S-2'-041823	Total/NA	Solid	8015 NM	
880-27391-3	T-7-HA-S-1'-041823	Total/NA	Solid	8015 NM	
880-27391-4	T-7-HA-S-2'-041823	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 51744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Soluble	Solid	DI Leach	
880-27391-2	T-6-HA-S-2'-041823	Soluble	Solid	DI Leach	
880-27391-3	T-7-HA-S-1'-041823	Soluble	Solid	DI Leach	
880-27391-4	T-7-HA-S-2'-041823	Soluble	Solid	DI Leach	
MB 880-51744/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-51744/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-51744/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 51878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27391-1	T-6-HA-S-1'-041823	Soluble	Solid	300.0	51744
880-27391-2	T-6-HA-S-2'-041823	Soluble	Solid	300.0	51744
880-27391-3	T-7-HA-S-1'-041823	Soluble	Solid	300.0	51744
880-27391-4	T-7-HA-S-2'-041823	Soluble	Solid	300.0	51744
MB 880-51744/1-A	Method Blank	Soluble	Solid	300.0	51744
LCS 880-51744/2-A	Lab Control Sample	Soluble	Solid	300.0	51744
LCSD 880-51744/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	51744

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Client Sample ID: T-6-HA-S-1'-041823
Date Collected: 04/18/23 13:50
Date Received: 04/19/23 17:06

Lab Sample ID: 880-27391-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	51536	04/20/23 09:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51575	04/20/23 15:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51729	04/21/23 14:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			51762	04/21/23 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	51651	04/20/23 16:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51659	04/21/23 11:09	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	51744	04/21/23 14:41	KS	EET MID
Soluble	Analysis	300.0		50	50 mL	50 mL	51878	04/24/23 18:10	SMC	EET MID

Client Sample ID: T-6-HA-S-2'-041823
Date Collected: 04/18/23 14:00
Date Received: 04/19/23 17:06

Lab Sample ID: 880-27391-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	51536	04/20/23 09:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51575	04/20/23 16:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51729	04/21/23 14:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			51762	04/21/23 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	51651	04/20/23 16:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51659	04/21/23 12:14	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	51744	04/21/23 14:41	KS	EET MID
Soluble	Analysis	300.0		50	50 mL	50 mL	51878	04/24/23 18:15	SMC	EET MID

Client Sample ID: T-7-HA-S-1'-041823
Date Collected: 04/18/23 14:10
Date Received: 04/19/23 17:06

Lab Sample ID: 880-27391-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	51536	04/20/23 09:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51575	04/20/23 17:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51729	04/21/23 14:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			51762	04/21/23 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	51651	04/20/23 16:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51659	04/21/23 12:36	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	51744	04/21/23 14:41	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	51878	04/24/23 18:20	SMC	EET MID

Client Sample ID: T-7-HA-S-2'-041823
Date Collected: 04/18/23 14:20
Date Received: 04/19/23 17:06

Lab Sample ID: 880-27391-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	51536	04/20/23 09:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51575	04/20/23 17:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51729	04/21/23 14:12	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Client Sample ID: T-7-HA-S-2'-041823
Date Collected: 04/18/23 14:20
Date Received: 04/19/23 17:06

Lab Sample ID: 880-27391-4
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			51762	04/21/23 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	51651	04/20/23 16:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51659	04/21/23 12:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	51744	04/21/23 14:41	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	51878	04/24/23 18:25	SMC	EET MID

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

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Accreditation/Certification Summary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

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Method Summary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: ARCADIS US Inc
Project/Site: Asio Otis 30133378

Job ID: 880-27391-1
SDG: Eddy County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-27391-1	T-6-HA-S-1'-041823	Solid	04/18/23 13:50	04/19/23 17:06
880-27391-2	T-6-HA-S-2'-041823	Solid	04/18/23 14:00	04/19/23 17:06
880-27391-3	T-7-HA-S-1'-041823	Solid	04/18/23 14:10	04/19/23 17:06
880-27391-4	T-7-HA-S-2'-041823	Solid	04/18/23 14:20	04/19/23 17:06

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Eurofins Carlsbad

1089 N Canal St
Carlsbad NM 88220
Phone (575) 988-3199 Phone (575) 988-3199

Chain of Custody Record

eurofins
Environmental Testing
America

27391

Client Information		Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Justin Nixon		Phone	Bulles John	890-938-35 1	890-938-35 1
Company: ARCADIS U.S. Inc.		PMSID	E-Mail: John.Bulles@et.eurofins.com	State of Origin: NM	Page 1 of 1
Address: 1004 North Big Spring Suite 300		Analysis Requested			
City: Midland	TAT Requested (days): 3 days				
State Zip: TX 79701	Compliance Project: ☐ Yes ☒ No				
Phone:	PO #:				
Email: Justin.Nixon@arcadis.com	Purchase Order not required				
Project Name: ASIO Otis 30133378	Project #: 89000100				
Site: Eddy County, NM	SSOW#:				
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Residue, Swab, Overhead, BT=Blank, AA=)
7-6-14A-5-15-041823	4-18-23	1350	G	Solid	
7-6-14A-5-28-041823		1420	G	Solid	
7-7-14A-5-15-041823		1410	G	Solid	
7-7-14A-5-25-041823		1420	G	Solid	
				Solid	
				Solid	
				Solid	
				Solid	
				Solid	
				Solid	
				Solid	
				Solid	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
☐ Non-Hazard	☐ Flammable	☐ Skin Irritant	☐ Poison B	☐ Unknown	☐ Radiological
Deliverable Requested I II III IV Other (specify)		Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months			
Empty Kit Relinquished by		Date	Time	Method of Shipment:	
Relinquished by	Date/Time	4/19/23	1700	Received by	Date/Time
Relinquished by	Date/Time			Received by	Date/Time
Relinquished by	Date/Time			Received by	Date/Time
Custody Seals Intact ☐ Yes ☒ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks			



880-27391 Chain of Custody

Special Instructions/Note
4072

- Preservation Codes
- | | |
|-----------------|---------------------|
| A HCL | M Hexane |
| B NaOH | N None |
| C Zn Acetate | O AsNaO2 |
| D Nitric Acid | P Na2O4S |
| E NaHSO4 | Q Na2SO3 |
| F MeOH | R Na2S2O3 |
| G Amchlor | S H2SO4 |
| H Ascorbic Acid | T TSP Dodecahydrate |
| I Ice | U Acetone |
| J DI Water | V MCAA |
| K EDTA | W pH 4.5 |
| L EDA | Y Trizma |
| Other | Z other (specify) |

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-27391-1
SDG Number: Eddy County, NM

Login Number: 27391
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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Justin Nixon
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 12/14/2023 12:29:44 PM

JOB DESCRIPTION

ASIO OTIS CTB

JOB NUMBER

880-36743-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.
Released to Imaging: 7/24/2024 11:12:11 AM

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
12/14/2023 12:29:44 PM

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

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Laboratory Job ID: 880-36743-1

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Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	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/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Job ID: 880-36743-1**Laboratory: Eurofins Midland****Narrative****Job Narrative
880-36743-1**

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 12/11/2023 10:24 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 3.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: H-N-S-120723 (880-36743-1), H-E-S-120723 (880-36743-2), H-S-S-120723 (880-36743-3), B-28-S-120723 (880-36743-4), B-29-S-120723 (880-36743-5), B-30-S-120723 (880-36743-6), B-31-S-120723 (880-36743-7) and B-32-S-120723 (880-36743-8).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-68998/5-A) and (MB 880-69014/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: H-E-S-120723 (880-36743-2) and (890-5771-A-13-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-68852 and analytical batch 880-68750 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-68750/20), (CCV 880-68750/31), (CCV 880-68750/47), (CCV 880-68750/5) and (LCS 880-68852/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-68852 and analytical batch 880-68750 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-68850 and analytical batch 880-68747 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: B-30-S-120723 (880-36743-6) and (890-5755-A-21-D). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-68747/31), (CCV 880-68747/47) and (CCV 880-68747/58). Evidence of matrix interferences is not obvious.

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

Case Narrative

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Job ID: 880-36743-1 (Continued)

Laboratory: Eurofins Midland (Continued)

HPLC/IC

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

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Client Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: H-N-S-120723

Lab Sample ID: 880-36743-1

Date Collected: 12/07/23 10:30

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/13/23 10:58	12/14/23 02:01	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/13/23 10:58	12/14/23 02:01	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/13/23 10:58	12/14/23 02:01	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/13/23 10:58	12/14/23 02:01	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/13/23 10:58	12/14/23 02:01	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/13/23 10:58	12/14/23 02:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130				12/13/23 10:58	12/14/23 02:01	1
1,4-Difluorobenzene (Surr)	71		70 - 130				12/13/23 10:58	12/14/23 02:01	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/14/23 02:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/12/23 03:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/12/23 03:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/12/23 03:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/12/23 03:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				12/11/23 14:20	12/12/23 03:46	1
o-Terphenyl	115		70 - 130				12/11/23 14:20	12/12/23 03:46	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.9		5.05		mg/Kg			12/13/23 16:15	1

Client Sample ID: H-E-S-120723

Lab Sample ID: 880-36743-2

Date Collected: 12/07/23 10:40

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 02:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 02:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 02:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 02:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 02:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 02:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130				12/13/23 10:58	12/14/23 02:21	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130				12/13/23 10:58	12/14/23 02:21	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: H-E-S-120723

Lab Sample ID: 880-36743-2

Date Collected: 12/07/23 10:40

Matrix: Solid

Date Received: 12/11/23 10:24

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/14/23 02:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			12/12/23 04:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		12/11/23 14:20	12/12/23 04:08	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		12/11/23 14:20	12/12/23 04:08	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		12/11/23 14:20	12/12/23 04:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130				12/11/23 14:20	12/12/23 04:08	1
o-Terphenyl	119		70 - 130				12/11/23 14:20	12/12/23 04:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.5		5.05		mg/Kg			12/13/23 16:38	1

Client Sample ID: H-S-S-120723

Lab Sample ID: 880-36743-3

Date Collected: 12/07/23 10:50

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 04:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 04:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 04:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 04:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 04:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 04:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130				12/13/23 10:58	12/14/23 04:04	1
1,4-Difluorobenzene (Surr)	76		70 - 130				12/13/23 10:58	12/14/23 04:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/14/23 04:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			12/12/23 04:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		12/11/23 14:20	12/12/23 04:33	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		12/11/23 14:20	12/12/23 04:33	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: H-S-S-120723

Lab Sample ID: 880-36743-3

Date Collected: 12/07/23 10:50

Matrix: Solid

Date Received: 12/11/23 10:24

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)	<50.1	U	50.1		mg/Kg		12/11/23 14:20	12/12/23 04:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				12/11/23 14:20	12/12/23 04:33	1
o-Terphenyl	108		70 - 130				12/11/23 14:20	12/12/23 04:33	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	296		50.5		mg/Kg			12/13/23 12:50	10

Client Sample ID: B-28-S-120723

Lab Sample ID: 880-36743-4

Date Collected: 12/07/23 11:00

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/13/23 10:58	12/14/23 04:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/13/23 10:58	12/14/23 04:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130				12/13/23 10:58	12/14/23 04:24	1
1,4-Difluorobenzene (Surr)	79		70 - 130				12/13/23 10:58	12/14/23 04:24	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/14/23 04:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	62.3		50.4		mg/Kg			12/12/23 04:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		12/11/23 14:20	12/12/23 04:54	1
Diesel Range Organics (Over C10-C28)	62.3		50.4		mg/Kg		12/11/23 14:20	12/12/23 04:54	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		12/11/23 14:20	12/12/23 04:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130				12/11/23 14:20	12/12/23 04:54	1
o-Terphenyl	126		70 - 130				12/11/23 14:20	12/12/23 04:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46900		253		mg/Kg			12/13/23 12:58	50

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Client Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: B-29-S-120723

Lab Sample ID: 880-36743-5

Date Collected: 12/07/23 11:20

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/13/23 10:58	12/14/23 04:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 04:45	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/13/23 10:58	12/14/23 04:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130				12/13/23 10:58	12/14/23 04:45	1
1,4-Difluorobenzene (Surr)	79		70 - 130				12/13/23 10:58	12/14/23 04:45	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			12/14/23 04:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	67.2		50.0		mg/Kg			12/12/23 05:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/12/23 05:15	1
Diesel Range Organics (Over C10-C28)	67.2		50.0		mg/Kg		12/11/23 14:20	12/12/23 05:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/12/23 05:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130				12/11/23 14:20	12/12/23 05:15	1
o-Terphenyl	119		70 - 130				12/11/23 14:20	12/12/23 05:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31600		251		mg/Kg			12/13/23 13:06	50

Client Sample ID: B-30-S-120723

Lab Sample ID: 880-36743-6

Date Collected: 12/07/23 11:40

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 05:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 05:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				12/13/23 10:58	12/14/23 05:05	1
1,4-Difluorobenzene (Surr)	78		70 - 130				12/13/23 10:58	12/14/23 05:05	1

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Client Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: B-30-S-120723

Lab Sample ID: 880-36743-6

Date Collected: 12/07/23 11:40

Matrix: Solid

Date Received: 12/11/23 10:24

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/14/23 05:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	52.2		49.9		mg/Kg			12/12/23 05:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/11/23 14:20	12/12/23 05:36	1
Diesel Range Organics (Over C10-C28)	52.2		49.9		mg/Kg		12/11/23 14:20	12/12/23 05:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/11/23 14:20	12/12/23 05:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130				12/11/23 14:20	12/12/23 05:36	1
o-Terphenyl	144	S1+	70 - 130				12/11/23 14:20	12/12/23 05:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54200		251		mg/Kg			12/13/23 13:30	50

Client Sample ID: B-31-S-120723

Lab Sample ID: 880-36743-7

Date Collected: 12/07/23 12:00

Matrix: Solid

Date Received: 12/11/23 10:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 05:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/13/23 10:58	12/14/23 05:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/13/23 10:58	12/14/23 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130				12/13/23 10:58	12/14/23 05:26	1
1,4-Difluorobenzene (Surr)	72		70 - 130				12/13/23 10:58	12/14/23 05:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/14/23 05:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			12/11/23 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	<50.4	U F1	50.4		mg/Kg		12/11/23 14:33	12/11/23 20:40	1
Diesel Range Organics (Over C10-C28)	<50.4	U F1	50.4		mg/Kg		12/11/23 14:33	12/11/23 20:40	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: B-31-S-120723
Date Collected: 12/07/23 12:00
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-7
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)	<50.4	U	50.4		mg/Kg		12/11/23 14:33	12/11/23 20:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				12/11/23 14:33	12/11/23 20:40	1
o-Terphenyl	94		70 - 130				12/11/23 14:33	12/11/23 20:40	1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34600		251		mg/Kg			12/13/23 13:38	50

Client Sample ID: B-32-S-120723
Date Collected: 12/07/23 12:20
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-8
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 05:46	1	
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 05:46	1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 05:46	1	
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/13/23 10:58	12/14/23 05:46	1	
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/14/23 05:46	1	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/13/23 10:58	12/14/23 05:46	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		70 - 130				12/13/23 10:58	12/14/23 05:46	1	
1,4-Difluorobenzene (Surr)	72		70 - 130				12/13/23 10:58	12/14/23 05:46	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/14/23 05:46	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	236		49.9		mg/Kg			12/11/23 21:46	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/11/23 14:33	12/11/23 21:46	1	
Diesel Range Organics (Over C10-C28)	178		49.9		mg/Kg		12/11/23 14:33	12/11/23 21:46	1	
Oil Range Organics (Over C28-C36)	58.2		49.9		mg/Kg		12/11/23 14:33	12/11/23 21:46	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	86		70 - 130				12/11/23 14:33	12/11/23 21:46	1	
o-Terphenyl	86		70 - 130				12/11/23 14:33	12/11/23 21:46	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	25100		250		mg/Kg			12/13/23 13:46	50	

Eurofins Midland

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-36743-1	H-N-S-120723	88	71
880-36743-2	H-E-S-120723	73	69 S1-
880-36743-3	H-S-S-120723	78	76
880-36743-4	B-28-S-120723	73	79
880-36743-5	B-29-S-120723	75	79
880-36743-6	B-30-S-120723	89	78
880-36743-7	B-31-S-120723	88	72
880-36743-8	B-32-S-120723	87	72
LCS 880-69014/1-A	Lab Control Sample	96	108
LCSD 880-69014/2-A	Lab Control Sample Dup	94	105
MB 880-68998/5-A	Method Blank	67 S1-	93
MB 880-69014/5-A	Method Blank	68 S1-	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-36743-1	H-N-S-120723	108	115
880-36743-2	H-E-S-120723	110	119
880-36743-3	H-S-S-120723	104	108
880-36743-4	B-28-S-120723	115	126
880-36743-5	B-29-S-120723	110	119
880-36743-6	B-30-S-120723	135 S1+	144 S1+
880-36743-7	B-31-S-120723	91	94
880-36743-7 MS	B-31-S-120723	93	90
880-36743-7 MSD	B-31-S-120723	95	85
880-36743-8	B-32-S-120723	86	86
LCS 880-68850/2-A	Lab Control Sample	99	112
LCS 880-68852/2-A	Lab Control Sample	130	148 S1+
LCSD 880-68850/3-A	Lab Control Sample Dup	110	127
LCSD 880-68852/3-A	Lab Control Sample Dup	102	117
MB 880-68850/1-A	Method Blank	174 S1+	209 S1+
MB 880-68852/1-A	Method Blank	124	134 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-68998/5-A

Matrix: Solid

Analysis Batch: 68975

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68998

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:32	12/13/23 12:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:32	12/13/23 12:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:32	12/13/23 12:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/13/23 10:32	12/13/23 12:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:32	12/13/23 12:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/13/23 10:32	12/13/23 12:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	12/13/23 10:32	12/13/23 12:07	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/13/23 10:32	12/13/23 12:07	1

Lab Sample ID: MB 880-69014/5-A

Matrix: Solid

Analysis Batch: 68975

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 69014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/13/23 23:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/13/23 23:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/13/23 23:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/13/23 10:58	12/13/23 23:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/23 10:58	12/13/23 23:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/13/23 10:58	12/13/23 23:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130	12/13/23 10:58	12/13/23 23:16	1
1,4-Difluorobenzene (Surr)	90		70 - 130	12/13/23 10:58	12/13/23 23:16	1

Lab Sample ID: LCS 880-69014/1-A

Matrix: Solid

Analysis Batch: 68975

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 69014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08356		mg/Kg		84	70 - 130
Toluene	0.100	0.07786		mg/Kg		78	70 - 130
Ethylbenzene	0.100	0.08620		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1762		mg/Kg		88	70 - 130
o-Xylene	0.100	0.08457		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-69014/2-A

Matrix: Solid

Analysis Batch: 68975

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 69014

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08480		mg/Kg		85	70 - 130	1	35

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QC Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

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

Lab Sample ID: LCSD 880-69014/2-A
Matrix: Solid
Analysis Batch: 68975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 69014

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier	Limits			RPD	Limit		
Toluene	0.100	0.08267			mg/Kg		83	70 - 130	6	35
Ethylbenzene	0.100	0.09053			mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1845			mg/Kg		92	70 - 130	5	35
o-Xylene	0.100	0.08822			mg/Kg		88	70 - 130	4	35

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

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

Lab Sample ID: MB 880-68850/1-A
Matrix: Solid
Analysis Batch: 68747

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 68850

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/11/23 20:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/11/23 20:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/11/23 14:20	12/11/23 20:38	1

MB		MB	Limits
Surrogate	%Recovery	Qualifier	
1-Chlorooctane	174	S1+	70 - 130
o-Terphenyl	209	S1+	70 - 130

Lab Sample ID: LCS 880-68850/2-A
Matrix: Solid
Analysis Batch: 68747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 68850

Analyte	Spike		LCS		Unit	D	%Rec	%Rec	
	Added	Result	Qualifier				Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1055			mg/Kg		106	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	934.3			mg/Kg		93	70 - 130	

LCS		LCS	Limits
Surrogate	%Recovery	Qualifier	
1-Chlorooctane	99		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: LCSD 880-68850/3-A
Matrix: Solid
Analysis Batch: 68747

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 68850

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD
	Added	Result	Qualifier			Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1086		mg/Kg		109	70 - 130	3
Diesel Range Organics (Over C10-C28)	1000	963.6		mg/Kg		96	70 - 130	3

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QC Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

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

Lab Sample ID: LCSD 880-68850/3-A
Matrix: Solid
Analysis Batch: 68747

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 68850

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: MB 880-68852/1-A
Matrix: Solid
Analysis Batch: 68750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 68852

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/11/23 14:33	12/11/23 19:35	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/11/23 14:33	12/11/23 19:35	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/11/23 14:33	12/11/23 19:35	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	124		70 - 130				12/11/23 14:33	12/11/23 19:35	1	
o-Terphenyl	134	S1+	70 - 130				12/11/23 14:33	12/11/23 19:35	1	

Lab Sample ID: LCS 880-68852/2-A
Matrix: Solid
Analysis Batch: 68750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 68852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	813.0		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	781.5		mg/Kg		78	70 - 130		
Surrogate		LCS %Recovery	LCS Qualifier	Limits					
1-Chlorooctane		130		70 - 130					
o-Terphenyl		148	S1+	70 - 130					

Lab Sample ID: LCSD 880-68852/3-A
Matrix: Solid
Analysis Batch: 68750

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 68852

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	877.4		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	910.4		mg/Kg		91	70 - 130	15	20
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
1-Chlorooctane		102		70 - 130					
o-Terphenyl		117		70 - 130					

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QC Sample Results

Client: ARCADIS US Inc

Job ID: 880-36743-1

Project/Site: ASIO OTIS CTB

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

Lab Sample ID: 880-36743-7 MS

Client Sample ID: B-31-S-120723

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 68750

Prep Batch: 68852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.4	U F1	1000	701.6	F1	mg/Kg		68	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.4	U F1	1000	722.3	F1	mg/Kg		68	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	93		70 - 130								
o-Terphenyl	90		70 - 130								

Lab Sample ID: 880-36743-7 MSD

Client Sample ID: B-31-S-120723

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 68750

Prep Batch: 68852

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.4	U F1	1000	727.5		mg/Kg		71	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.4	U F1	1000	708.9	F1	mg/Kg		67	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	85		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-68896/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 69013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/13/23 11:56	1

Lab Sample ID: LCS 880-68896/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 69013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	251.8		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-68896/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 69013

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.1		mg/Kg		101	90 - 110	0	20

QC Sample Results

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-36743-1 MS

Matrix: Solid

Analysis Batch: 69013

Client Sample ID: H-N-S-120723

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	23.9		253	270.0		mg/Kg		97	90 - 110

Lab Sample ID: 880-36743-1 MSD

Matrix: Solid

Analysis Batch: 69013

Client Sample ID: H-N-S-120723

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	23.9		253	271.0		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: ARCADIS US Inc

Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

GC VOA

Analysis Batch: 68975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Total/NA	Solid	8021B	69014
880-36743-2	H-E-S-120723	Total/NA	Solid	8021B	69014
880-36743-3	H-S-S-120723	Total/NA	Solid	8021B	69014
880-36743-4	B-28-S-120723	Total/NA	Solid	8021B	69014
880-36743-5	B-29-S-120723	Total/NA	Solid	8021B	69014
880-36743-6	B-30-S-120723	Total/NA	Solid	8021B	69014
880-36743-7	B-31-S-120723	Total/NA	Solid	8021B	69014
880-36743-8	B-32-S-120723	Total/NA	Solid	8021B	69014
MB 880-68998/5-A	Method Blank	Total/NA	Solid	8021B	68998
MB 880-69014/5-A	Method Blank	Total/NA	Solid	8021B	69014
LCS 880-69014/1-A	Lab Control Sample	Total/NA	Solid	8021B	69014
LCSD 880-69014/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	69014

Prep Batch: 68998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-68998/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 69014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Total/NA	Solid	5035	
880-36743-2	H-E-S-120723	Total/NA	Solid	5035	
880-36743-3	H-S-S-120723	Total/NA	Solid	5035	
880-36743-4	B-28-S-120723	Total/NA	Solid	5035	
880-36743-5	B-29-S-120723	Total/NA	Solid	5035	
880-36743-6	B-30-S-120723	Total/NA	Solid	5035	
880-36743-7	B-31-S-120723	Total/NA	Solid	5035	
880-36743-8	B-32-S-120723	Total/NA	Solid	5035	
MB 880-69014/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-69014/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-69014/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 69108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Total/NA	Solid	Total BTEX	
880-36743-2	H-E-S-120723	Total/NA	Solid	Total BTEX	
880-36743-3	H-S-S-120723	Total/NA	Solid	Total BTEX	
880-36743-4	B-28-S-120723	Total/NA	Solid	Total BTEX	
880-36743-5	B-29-S-120723	Total/NA	Solid	Total BTEX	
880-36743-6	B-30-S-120723	Total/NA	Solid	Total BTEX	
880-36743-7	B-31-S-120723	Total/NA	Solid	Total BTEX	
880-36743-8	B-32-S-120723	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 68747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Total/NA	Solid	8015B NM	68850
880-36743-2	H-E-S-120723	Total/NA	Solid	8015B NM	68850
880-36743-3	H-S-S-120723	Total/NA	Solid	8015B NM	68850
880-36743-4	B-28-S-120723	Total/NA	Solid	8015B NM	68850
880-36743-5	B-29-S-120723	Total/NA	Solid	8015B NM	68850

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QC Association Summary

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

GC Semi VOA (Continued)

Analysis Batch: 68747 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-6	B-30-S-120723	Total/NA	Solid	8015B NM	68850
MB 880-68850/1-A	Method Blank	Total/NA	Solid	8015B NM	68850
LCS 880-68850/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	68850
LCSD 880-68850/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	68850

Analysis Batch: 68750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-7	B-31-S-120723	Total/NA	Solid	8015B NM	68852
880-36743-8	B-32-S-120723	Total/NA	Solid	8015B NM	68852
MB 880-68852/1-A	Method Blank	Total/NA	Solid	8015B NM	68852
LCS 880-68852/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	68852
LCSD 880-68852/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	68852
880-36743-7 MS	B-31-S-120723	Total/NA	Solid	8015B NM	68852
880-36743-7 MSD	B-31-S-120723	Total/NA	Solid	8015B NM	68852

Prep Batch: 68850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-2	H-E-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-3	H-S-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-4	B-28-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-5	B-29-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-6	B-30-S-120723	Total/NA	Solid	8015NM Prep	
MB 880-68850/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-68850/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-68850/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 68852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-7	B-31-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-8	B-32-S-120723	Total/NA	Solid	8015NM Prep	
MB 880-68852/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-68852/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-68852/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-36743-7 MS	B-31-S-120723	Total/NA	Solid	8015NM Prep	
880-36743-7 MSD	B-31-S-120723	Total/NA	Solid	8015NM Prep	

Analysis Batch: 68903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Total/NA	Solid	8015 NM	
880-36743-2	H-E-S-120723	Total/NA	Solid	8015 NM	
880-36743-3	H-S-S-120723	Total/NA	Solid	8015 NM	
880-36743-4	B-28-S-120723	Total/NA	Solid	8015 NM	
880-36743-5	B-29-S-120723	Total/NA	Solid	8015 NM	
880-36743-6	B-30-S-120723	Total/NA	Solid	8015 NM	
880-36743-7	B-31-S-120723	Total/NA	Solid	8015 NM	
880-36743-8	B-32-S-120723	Total/NA	Solid	8015 NM	

Eurofins Midland

QC Association Summary

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

HPLC/IC

Leach Batch: 68896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Soluble	Solid	DI Leach	
880-36743-2	H-E-S-120723	Soluble	Solid	DI Leach	
880-36743-3	H-S-S-120723	Soluble	Solid	DI Leach	
880-36743-4	B-28-S-120723	Soluble	Solid	DI Leach	
880-36743-5	B-29-S-120723	Soluble	Solid	DI Leach	
880-36743-6	B-30-S-120723	Soluble	Solid	DI Leach	
880-36743-7	B-31-S-120723	Soluble	Solid	DI Leach	
880-36743-8	B-32-S-120723	Soluble	Solid	DI Leach	
MB 880-68896/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-68896/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-68896/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-36743-1 MS	H-N-S-120723	Soluble	Solid	DI Leach	
880-36743-1 MSD	H-N-S-120723	Soluble	Solid	DI Leach	

Analysis Batch: 69013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-36743-1	H-N-S-120723	Soluble	Solid	300.0	68896
880-36743-2	H-E-S-120723	Soluble	Solid	300.0	68896
880-36743-3	H-S-S-120723	Soluble	Solid	300.0	68896
880-36743-4	B-28-S-120723	Soluble	Solid	300.0	68896
880-36743-5	B-29-S-120723	Soluble	Solid	300.0	68896
880-36743-6	B-30-S-120723	Soluble	Solid	300.0	68896
880-36743-7	B-31-S-120723	Soluble	Solid	300.0	68896
880-36743-8	B-32-S-120723	Soluble	Solid	300.0	68896
MB 880-68896/1-A	Method Blank	Soluble	Solid	300.0	68896
LCS 880-68896/2-A	Lab Control Sample	Soluble	Solid	300.0	68896
LCSD 880-68896/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	68896
880-36743-1 MS	H-N-S-120723	Soluble	Solid	300.0	68896
880-36743-1 MSD	H-N-S-120723	Soluble	Solid	300.0	68896

Eurofins Midland

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: H-N-S-120723
Date Collected: 12/07/23 10:30
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 02:01	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 02:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/12/23 03:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	68850	12/11/23 14:20	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68747	12/12/23 03:46	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		1			69013	12/13/23 16:15	CH	EET MID

Client Sample ID: H-E-S-120723
Date Collected: 12/07/23 10:40
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 02:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 02:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/12/23 04:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	68850	12/11/23 14:20	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68747	12/12/23 04:08	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		1			69013	12/13/23 16:38	CH	EET MID

Client Sample ID: H-S-S-120723
Date Collected: 12/07/23 10:50
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 04:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 04:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/12/23 04:33	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	68850	12/11/23 14:20	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68747	12/12/23 04:33	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		10			69013	12/13/23 12:50	CH	EET MID

Client Sample ID: B-28-S-120723
Date Collected: 12/07/23 11:00
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 04:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 04:24	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: B-28-S-120723
Date Collected: 12/07/23 11:00
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-4
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			68903	12/12/23 04:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	68850	12/11/23 14:20	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68747	12/12/23 04:54	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		50			69013	12/13/23 12:58	CH	EET MID

Client Sample ID: B-29-S-120723
Date Collected: 12/07/23 11:20
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 04:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 04:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/12/23 05:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	68850	12/11/23 14:20	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68747	12/12/23 05:15	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		50			69013	12/13/23 13:06	CH	EET MID

Client Sample ID: B-30-S-120723
Date Collected: 12/07/23 11:40
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 05:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 05:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/12/23 05:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	68850	12/11/23 14:20	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68747	12/12/23 05:36	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		50			69013	12/13/23 13:30	CH	EET MID

Client Sample ID: B-31-S-120723
Date Collected: 12/07/23 12:00
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 05:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 05:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/11/23 20:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	68852	12/11/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68750	12/11/23 20:40	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Client Sample ID: B-31-S-120723
Date Collected: 12/07/23 12:00
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		50			69013	12/13/23 13:38	CH	EET MID

Client Sample ID: B-32-S-120723
Date Collected: 12/07/23 12:20
Date Received: 12/11/23 10:24

Lab Sample ID: 880-36743-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	69014	12/13/23 10:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	68975	12/14/23 05:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			69108	12/14/23 05:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			68903	12/11/23 21:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	68852	12/11/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	68750	12/11/23 21:46	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	68896	12/12/23 09:41	SA	EET MID
Soluble	Analysis	300.0		50			69013	12/13/23 13:46	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: ASIO OTIS CTB

Job ID: 880-36743-1

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	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: ASIO OTIS CTB

Job ID: 880-36743-1

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: ARCADIS US Inc
Project/Site: ASIO OTIS CTB

Job ID: 880-36743-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-36743-1	H-N-S-120723	Solid	12/07/23 10:30	12/11/23 10:24
880-36743-2	H-E-S-120723	Solid	12/07/23 10:40	12/11/23 10:24
880-36743-3	H-S-S-120723	Solid	12/07/23 10:50	12/11/23 10:24
880-36743-4	B-28-S-120723	Solid	12/07/23 11:00	12/11/23 10:24
880-36743-5	B-29-S-120723	Solid	12/07/23 11:20	12/11/23 10:24
880-36743-6	B-30-S-120723	Solid	12/07/23 11:40	12/11/23 10:24
880-36743-7	B-31-S-120723	Solid	12/07/23 12:00	12/11/23 10:24
880-36743-8	B-32-S-120723	Solid	12/07/23 12:20	12/11/23 10:24

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

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-36743-1

Login Number: 36743
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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Texas 77042
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Fax: 713 977 4620
www.arcadis.com

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District III
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District IV
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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 332323

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 332323
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2130843614
Incident Name	NAPP2130843614 ASIO OTUS CTB @ 0
Incident Type	Produced Water Release
Incident Status	Deferral Request Received
Incident Facility	[fAB1732026744] Screech Owl CTB

Location of Release Source <i>Please answer all the questions in this group.</i>	
Site Name	ASIO OTUS CTB
Date Release Discovered	10/18/2021
Surface Owner	Federal

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

Nature and Volume of Release <i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion Valve Produced Water Released: 31 BBL Recovered: 20 BBL Lost: 11 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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

QUESTIONS, Page 2

Action 332323

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	332323
Action Type:	
[C-141] Deferral Request C-141 (C-141-v-Deferral)	

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: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 04/11/2024
--	---

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QUESTIONS, Page 3

Action 332323

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	332323
Action Type:	
[C-141] Deferral Request C-141 (C-141-v-Deferral)	

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 75 and 100 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
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	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
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)	300
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	8015
GRO+DRO (EPA SW-846 Method 8015M)	8015
BTEX (EPA SW-846 Method 8021B or 8260B)	8021
Benzene (EPA SW-846 Method 8021B or 8260B)	8260

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	09/14/2023
On what date will (or did) the final sampling or liner inspection occur	09/14/2023
On what date will (or was) the remediation complete(d)	09/26/2023
What is the estimated surface area (in square feet) that will be reclaimed	6400
What is the estimated volume (in cubic yards) that will be reclaimed	1645
What is the estimated surface area (in square feet) that will be remediated	6400
What is the estimated volume (in cubic yards) that will be remediated	1645

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, Page 4

Action 332323

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	332323
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(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	ASIO OTUS FED #3H RT BTTY [fAPP2202647776]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 04/11/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5
Action 332323

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	332323
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	N/A
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	900
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	145
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	ASIO OTUS FED #3H RT BTTY [fAPP2202647776]
Enter the well API (30-) on which this deferral should be granted	30-015-42395 ASIO OTUS FEDERAL #003H
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
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: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 04/11/2024

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Action 332323

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 332323
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

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 332323

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 332323
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	Deferral approved. Deferral of B28 - B32, T-6 and T-7 is approved until plugging and abandonment or a major facility deconstruction, whichever comes first. A complete and accurate remediation report and/or reclamation report will need to be submitted at that time.	6/21/2024