ENSOLUM

September 27, 2022

District 1
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Re: Remediation Work Plan
James E Upper Tank Battery
Incident Numbers NAPP2129846676, NAPP2200639375, and NAPP2202446534
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of ConocoPhillips Company (COP), has prepared the following Remediation Work Plan to document site assessment and soil sampling activities completed to date and propose a work plan to address impacted soil identified at the James E Upper Tank Battery (Site). The purpose of the site assessment and soil sampling activities was to delineate and vertical and lateral extent of impacted soil resulting from three overlapping release events at the Site. Assessment began following the initial release, but this work plan proposes addressing the three releases concurrently by excavation of the impacted soil at the Site.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit E, Section 12, Township 22 South, Range 30 East, in Lea County, New Mexico (32.408333° N, 103.840278°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land.

NAPP2129846676

On October 12, 2021, a water dump valve malfunctioned causing the release of approximately 15.8 barrels (bbls) of produced water and 2.2 bbls of crude oil onto the surface of the well pad and overspray into the adjacent pasture. No released fluids were recovered. COP reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on October 25, 2021. The release was assigned Incident Number NAPP2129846676.

NAPP2200639375

On December 20, 2021, a pressure relief valve on the separator failed causing a release of approximately 21 bbls of produced water and 3 bbls of crude oil onto the surface of the well pad and overspray into the adjacent pasture. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 2 bbls of crude oil were recovered. COP reported the release to the NMOCD on a Release Notification Form C-141 on January 6, 2022. The release was assigned Incident Number NAPP2200639375.

NAPP2202446534

On January 1, 2022, a valve failure caused a release of approximately 61 bbls of crude oil onto the surface of the well pad and into the adjacent pasture. No released fluids were recovered. COP reported the release to the NMOCD via email on January 3, 2022 and submitted a Release Notification Form C-141 on January 24, 2022. The release was assigned Incident Number NAPP2202446534.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine application of Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On May 13, 2021, borehole C-4528 (New Mexico Office of the State Engineer (NMOSE) file number C-4528) was advanced to a depth of 104 feet bgs via hollow stem auger rig. The borehole was located approximately 0.4 miles southwest of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The Well Record and Log is included in Appendix A. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period, groundwater was not observed and it was confirmed that groundwater in the area is greater than 104 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing or significant watercourse to the Site is a drainage off Livingston Ridge, located approximately 1,246 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

INITIAL SITE ASSESSMENT ACTIVITIES

Between October 26, 2021 and November 23, 2021, site assessment activities were conducted to evaluate the October 12, 2021 (NAPP2129846676) release extent based on information provided on the Form C-141 and visual observations. Fourteen preliminary assessment soil samples (SS01 through SS14) were collected within the release extent from a depth of 0.5 feet bgs. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The October 12, 2021 release extent, overspray extent, and preliminary soil sample locations were mapped utilizing a handheld global positioning system (GPS) unit and are depicted on Figure 2.

On December 29, 2021, personnel visited the Site to evaluate the December 20, 2021 (NAPP2200639375) release extent. Ten preliminary assessment soil samples (SS01 through SS10) were collected from a depth of 0.5 feet bgs. The preliminary samples were field screened as described above. The December 20, 2021 release extent, overspray extent, and preliminary soil sample locations are depicted on Figure 2.

All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples collected from the release extents on pad and one preliminary soil sample collected off pad indicated TPH-GRO/TPH-DRO, TPH, and/or chloride concentrations exceeded the Site Closure Criteria. One soil sample collected on pad (SS06 for NAPP2200639375) and the remaining off-pad samples collected from overspray areas indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and reclamation requirement. Based on visible staining in the release area, timing of the releases, and the unrecovered volume of released fluids, additional delineation was warranted.

RESPONSE AND DELINEATION ACTIVITIES

Following the initial release (NAPP2129846676), the Bureau of Land Management (BLM) requested an archaeological survey in the undeveloped pasture prior to additional investigation and remediation efforts. The survey was conducted on November 11, 2021 and the BLM cleared the Site for remediation activities after subsequent review. By that time, two additional release events occurred at the Site on December 20, 2021 (Incident Number NAPP2200639375) and January 1, 2022 (Incident Number NAPP2202446534). Those releases prompted BLM to request another archeological survey, which was conducted February 2, 2022. The BLM cleared the undeveloped portion of the Site for all investigation and remediation activities in April 2022.

COP conducted an initial scrape of saturated soil on pad immediately after the third release event. On May 9, 2022 and May 10, 2022, Ensolum personnel were at the Site to oversee comprehensive delineation activities of all three releases. Nineteen boreholes (TP1 through TP19) were advanced via hand-auger within and around the release extents for incident numbers NAPP2129846676, NAPP2200639375, and the eastern extent of NAPP2202446534, which all overlapped. The boreholes were advanced to a depth of 3 feet bgs. Delineation soil samples were collected from each borehole from depths ranging from ground surface to 3 feet bgs. Soil from the boreholes was field screened for VOCs and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes

were logged on lithologic soil sampling logs, which are included in Appendix B. The delineation soil sample locations are depicted on Figure 3. Photographic documentation is included in Appendix C.

Laboratory analytical results for delineation soil samples indicate samples collected from the area of overlapping releases contain concentrations of benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations that exceeded the Site Closure Criteria. Soil samples collected from the overspray areas, the eastern portion of the release footprint of NAPP2202446534, and samples collected outside the release and overspray footprints were compliant with site Closure Criteria. All of those samples were also compliant with the reclamation standard, except for TP10. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

PROPOSED WORK PLAN

Impacted soil has been identified in areas of TP1, TP2, TP3, TP7, and TP11 within the overlapping release footprint to a depth of approximately 3 feet bgs. As a result, COP proposes excavation of impacted soil at the Site.

COP requests approval to complete the following remediation activities:

- Excavation of impacted soil in on-pad areas of TP1, TP2, TP7, and TP11. Excavation will proceed laterally until sidewall samples confirm chloride and TPH concentrations are compliant with the Site Closure Criteria.
- Excavation of chloride and TPH impacted soil in the top 4 feet of the off-pad area in the vicinity of TP3. Excavation will proceed laterally until sidewall samples confirm chloride and TPH concentrations are compliant with the reclamation requirement in the top 4 feet.
- An estimated 1,200 cubic yards of impacted soil will be excavated and disposed of at a licensed disposal facility.
- The excavation is estimated to be 10,000 square feet in size, and COP requests a variance for frequency of excavation confirmation samples. COP proposes the frequency of confirmation sampling for the excavation floor to be decreased from every 200 square feet (approximately 50 samples) to every 400 square feet (approximately 25 samples). Each 5-point composite floor sample will represent a 400 square foot area. Sidewall samples will be collected at a frequency of every 200 square feet. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation samples will be analyzed for TPH and chloride only since BTEX was not detected above site Closure Criteria in any delineation sample.
- The excavation will be backfilled and recontoured to match pre-existing conditions. The disturbed pasture will be re-seeded with an approved Bureau of Land Management (BLM) seed mixture.

COP will complete the excavation activities within 90 days of the date of approval of this RWP by the NMOCD. A report detailing remedial actions will be submitted within 30 days of receipt of laboratory analytical results.

COP believes the scope of work described above will meet requirements set forth in 19.15.29.13 NMAC and are protective of human health, the environment, and groundwater. As such, COP respectfully requests approval of this RWP from NMOCD.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

Daniel, R. Moir, PG
Senior Managing Geologist

cc: Charles Beauvais, ConocoPhillips Company
Bureau of Land Management

Attachments:

Figure 1	Site Receptor Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Well Record and Log
Appendix B	Lithologic / Soil Sampling Log
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports
Appendix E	Final C-141

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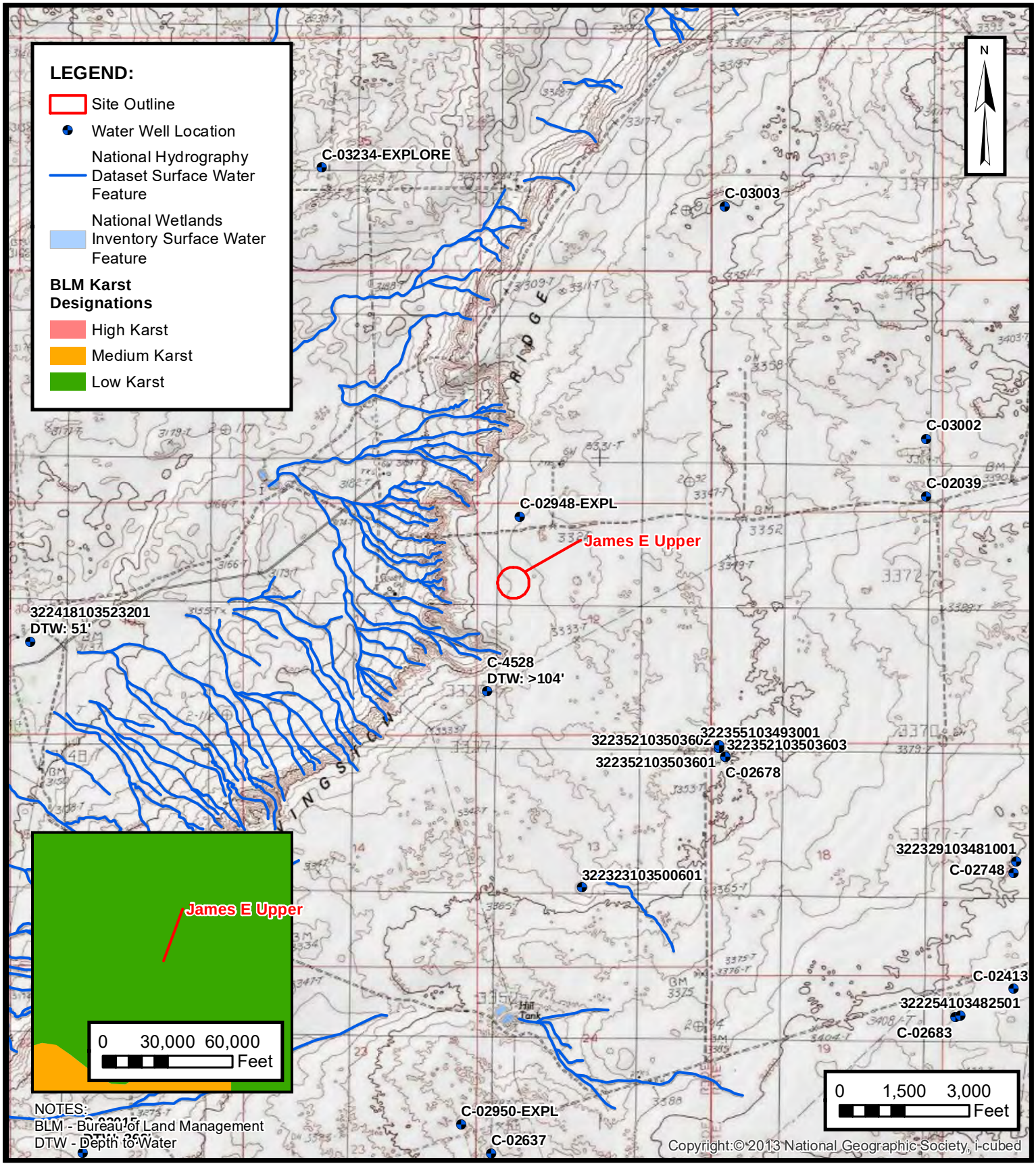
FIGURES



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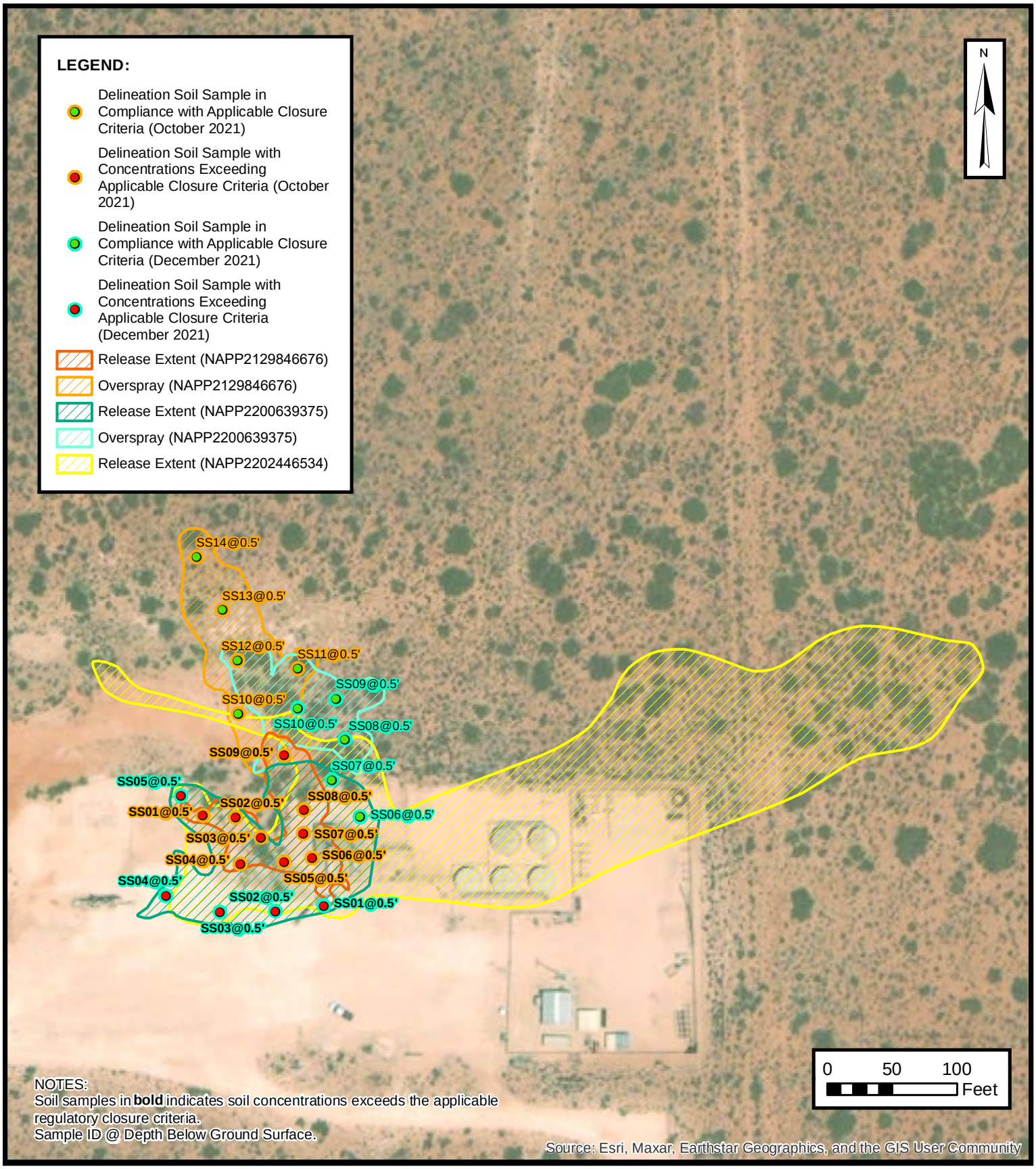
SITE RECEPTOR MAP

CONOCOPHILLIPS COMPANY
JAMES E UPPER
NAPP2129846676, NAPP2200639375, NAPP2202446534
Unit E, Sec 12, T22S, R30 E
Lea County, New Mexico

FIGURE
1



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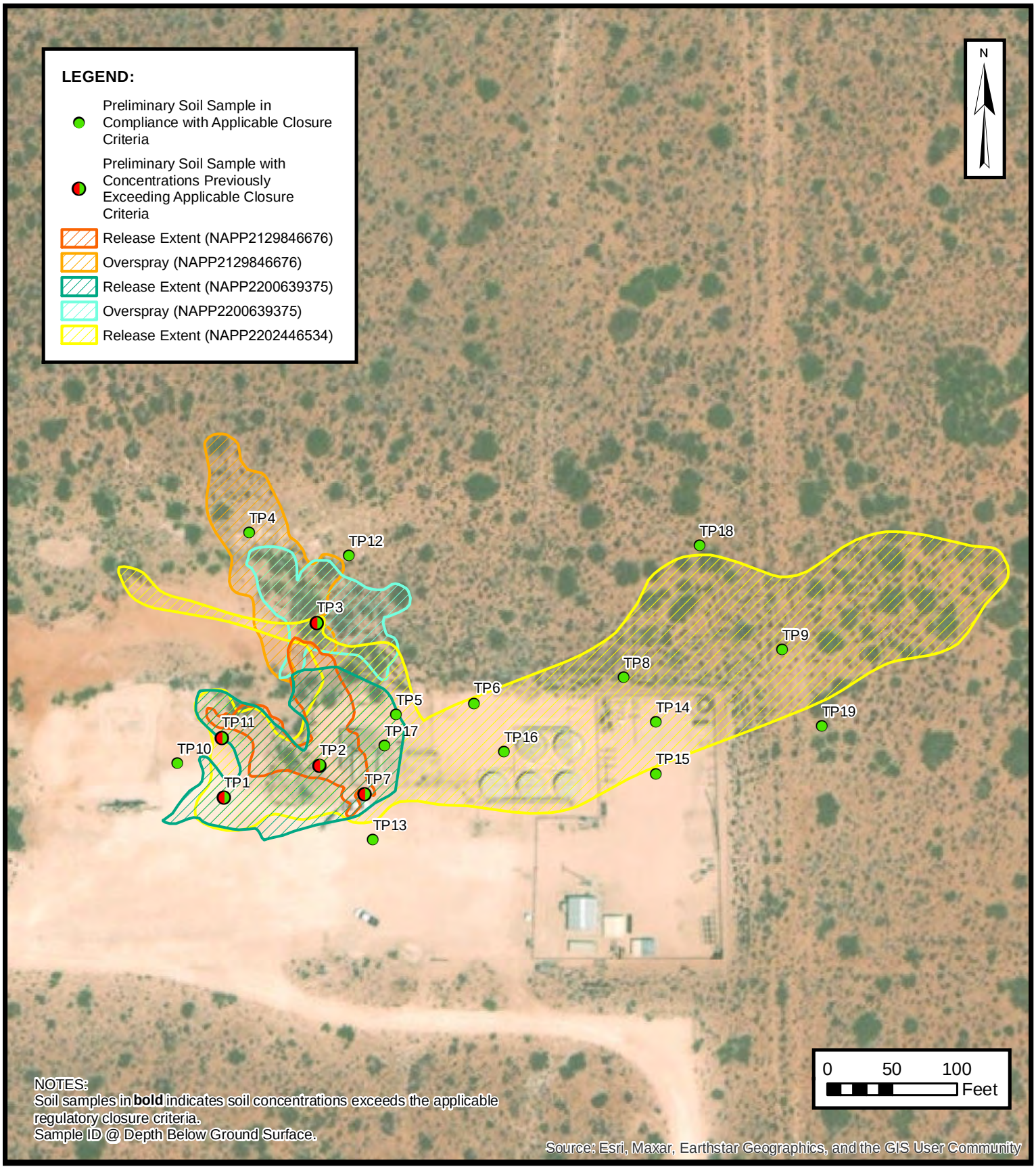
PRELIMINARY SOIL SAMPLE LOCATIONS

CONOCOPHILLIPS COMPANY
JAMES E UPPER
NAPP2129846676, NAPP2200639375, NAPP2202446534
Unit E, Sec 12, T22S, R30 E
Lea County, New Mexico

FIGURE
2



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DELINEATION SOIL SAMPLE LOCATIONS

CONOCOPHILLIPS COMPANY
JAMES E UPPER
NAPP2129846676, NAPP2200639375, NAPP2202446534
Unit E, Sec 12, T22S, R30 E
Lea County, New Mexico

FIGURE

3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
James E Upper
ConocoPhillips Company
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Preliminary Assessment Soil Samples (NAPP2129846676)										
SS01	10/26/2021	0.5	0.0262	0.123	<249	5,270	927	**5,270**	**6,200**	**23,200**
SS02	10/26/2021	0.5	0.00417	0.0354	<250	2,450	554	**2,450**	**3,000**	15,600
SS03	10/26/2021	0.5	0.00341	0.0639	<250	7,430	1,210	**7,430**	**8,640**	**29,800**
SS04	10/26/2021	0.5	0.0194	0.044	<250	6,820	1,370	**6,820**	**8,190**	**25,500**
SS05	10/26/2021	0.5	0.012	0.0192	<249	10,000	1,780	**10,000**	**11,800**	**24,800**
SS06	10/26/2021	0.5	<0.00200	<0.00399	<250	8,260	1,420	**8,260**	**9,680**	16,700
SS07	10/26/2021	0.5	<0.00199	<0.00398	<249	7,910	1,400	**7,910**	**9,310**	**22,700**
SS08	10/26/2021	0.5	<0.00198	0.0106	<250	7,390	1,420	**7,390**	**8,810**	14,300
SS09	10/26/2021	0.5	<0.00198	0.0108	<250	2,190	600	**2,190**	**2,790**	3,230
SS10	11/23/2021	0.5	<0.00199	0.0269	<49.9	61.9	<49.9	61.9	61.9	112*
SS11	11/23/2021	0.5	<0.00200	0.00873	<50.0	<50.0	<50.0	<50.0	<50.0	103*
SS12	11/23/2021	0.5	<0.00200	<0.00401	<49.9	75.3	<49.9	75.3	75.3	105*
SS13	11/23/2021	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	48.9*
SS14	11/23/2021	0.5	<0.00200	0.00703	<49.8	<49.8	<49.8	<49.8	<49.8	11.6*
Preliminary Assessment Soil Samples (NAPP2200639375)										
SS01	12/29/2021	0.5	0.135	12.4	774	6,280	<500	**7,050**	**7,050**	7,510
SS02	12/29/2021	0.5	<0.0400	8.40	672	4,980	<250	**5,650**	**5,650**	427
SS03	12/29/2021	0.5	0.0712	20.9	1,390	7,590	<499	**8,980**	**8,980**	2,980
SS04	12/29/2021	0.5	0.265	22.4	1,930	8,560	<499	**10,500**	**10,500**	993
SS05	12/29/2021	0.5	0.342	31.9	1,820	10,300	<500	**12,100**	**12,100**	866
SS06	12/29/2021	0.5	<0.0398	1.53	<50.0	97.6	<50.0	97.6	97.6	11,000
SS07	12/29/2021	0.5	<0.0402	0.398	<50.0	594	<50.0	594	594	44.7
SS08	12/29/2021	0.5	0.00857	0.0589	<49.9	55.8	<49.9	55.8	55.8	8.66*
SS09	12/29/2021	0.5	0.00497	0.0424	<50.0	<50.0	<50.0	<50.0	<50.0	19.1*
SS10	12/29/2021	0.5	0.0169	0.0835	<49.9	<49.9	<49.9	<49.9	<49.9	14.0*
Delineation Soil Samples										
TP1-0-1	05/09/2022	0 - 1	<0.00201	0.165	368	8,570	2,700	**8,938**	**11,600**	292
TP1-2-3	05/09/2022	2 - 3	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	648
TP2-0-1	05/09/2022	0 - 1	<0.00202	<0.00403	<50.0	3,450	846	**3,450**	**4,300**	744
TP2-1-2	05/09/2022	1 - 2	<0.00200	0.178	<49.9	<49.9	<49.9	<49.9	<49.9	323
TP3-0-1	05/09/2022	0 - 1	<0.000397	0.0714	<250	5,860	1,440	**5,860**	**7,300**	1,020*
TP3-2-3	05/09/2022	2 - 3	<0.00200	0.0561	<49.9	<49.9	<49.9	<49.9	<49.9	41.2*
TP4-0-1	05/09/2022	0 - 1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	30.6*
TP4-1-2	05/09/2022	1 - 2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	594*

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
James E Upper
ConocoPhillips Company
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
TP5-0-1	05/09/2022	0 - 1	<0.00200	<0.00400	<49.9	787	312	787	1,100	714
TP5-2-3	05/09/2022	2 - 3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	226
TP6-0-1	05/09/2022	0 - 1	<0.00201	0.0454	<49.9	<49.9	<49.9	<49.9	<49.9	55.9
TP6-2-3	05/09/2022	2 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	69.8
TP7-0-1	05/09/2022	0 - 1	<0.00200	<0.00399	<249	14,000	3,740	**14,000**	**17,700**	3,860
TP7-2-3	05/09/2022	2 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	797
TP8-0-1	05/09/2022	0 - 1	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	26.5*
TP8-1-2	05/09/2022	1 - 2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	10.6*
TP9-0-1	05/09/2022	0 - 1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	5.83*
TP9-1-2	05/09/2022	1 - 2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99*
TP10-0-1	05/10/2022	0 - 1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	1,650
TP10-2-3	05/10/2022	2 - 3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	1,300
TP11-0-1	05/10/2022	0 - 1	<0.199	16.4	1,780	11,700	2,980	**13,480**	**16,500**	3,220
TP11-2-3	05/10/2022	2 - 3	<0.00200	<0.00399	<49.9	52.3	92.3	52.3	145	1,160
TP12-0-1	05/10/2022	0 - 1	<0.00201	<0.00402	<50.0	<50.0	56.9	<50.0	56.9	8.68*
TP12-1-2	05/10/2022	1 - 2	<0.00199	<0.00398	<49.9	<49.9	72.5	<49.9	72.5	10.3*
TP13-0-1	05/10/2022	0 - 1	<0.00200	<0.00400	<50.0	<50.0	211	<50.0	211	54.6
TP13-2-3	05/10/2022	2 - 3	<0.00202	<0.00403	<49.9	<49.9	63.3	<49.9	63.3	54.5
TP14-0-1	05/10/2022	0 - 1	<0.00199	<0.00398	<49.9	166	157	166	323	15.8
TP14-2-3	05/10/2022	2 - 3	<0.00201	<0.00402	<50.0	<50.0	57.4	<50.0	57.4	11.4
TP15-1-2	05/10/2022	1 - 2	<0.00200	<0.00401	<50.0	<50.0	50.2	<50.0	50.2	8.17
TP15-2-3	05/10/2022	2 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8.55
TP16-0-1	05/10/2022	0 - 1	<0.00200	<0.00400	<50.0	165	124	165	289	129
TP16-2-3	05/10/2022	2 - 3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	15.1
TP17-0-1	05/10/2022	0 - 1	<0.00198	<0.00396	<49.8	776	225	776	1,000	195
TP17-2-3	05/10/2022	2 - 3	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	14.1
TP18-0-1	05/10/2022	0 - 1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	<5.01*
TP18-1-2	05/10/2022	1 - 2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98*
TP19-0-1	05/10/2022	0 - 1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04*
TP19-1-2	05/10/2022	1 - 2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97*

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard for chloride in the top 4 feet is 600 mg/kg
Grey text represents samples that have been excavated

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APPENDIX A

Well Record and Log

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

06/07/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4528 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4528 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

PLUGGING RECORD

NOTE: **A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4528-POD1

Well owner: XTO ENERGY (Kyle Littrell) Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge, Carmelo Trevino, Cameron Pruitt

4) Date well plugging began: 05/24/2021 Date well plugging concluded: 05/24/2021

5) GPS Well Location: Latitude: 32 deg, 24 min, 8.49 sec
Longitude: 103 deg, 50 min, 31.81 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 111 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 04/22/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

RECEIVED 05/24/2021 PM 2:17

Version: September 8, 2009
Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-20' Hydrated Bentonite	Approx. 31.2 gallons	31 gallons	Augers	
	20'-110' Drill Cuttings	Approx. 143 gallons	143 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

06/09/2021

Date

Version: September 8, 2009
Page 2 of 2

2021-06-07_C-4528_POD1_OSE_Well Record and Log_jru48-forsign

Final Audit Report 2021-06-09

Created:	2021-06-09
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA_6yJIJ952KoX8InHTASSi3jWs4Irji07

"2021-06-07_C-4528_POD1_OSE_Well Record and Log_jru48-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
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Document emailed to Jack Atkins (jack@atkinseng.com) for signature
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Email viewed by Jack Atkins (jack@atkinseng.com)
2021-06-09 - 6:45:58 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-06-09 - 6:46:21 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-06-09 - 6:46:21 PM GMT

Adobe Sign

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (MW-1)	n/a	C-4528

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	24'	8.49"	N
	LONGITUDE	103°	50'	31.81"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW SW Sec. 12 T22S R30E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
05/13/2021	05/13/2021	temporary well material	104	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	104	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	9	24	SAND, poorly graded, very- fine grained, caliche gravel, light-brown	Y ✓ N	
9	14	5	SAND, well graded , very- fine grained, caliche gravel, tan	Y ✓ N	
14	19	5	SAND, well graded, very- fine grained, caliche gravel,Tan- Reddish brown, dry	Y ✓ N	
19	29	10	SAND, poorly graded, very- fine grained, caliche gravel, Tan- Reddish brown, d	Y ✓ N	
29	34	5	SAND, poorly graded, very- fine grained, some silt, Reddish brown, dry	Y ✓ N	
34	44	10	CLAYEY SAND, low plasticity, very- fine grained, Reddish brown, dry	Y ✓ N	
44	49	5	SAND, poorly graded , very- fine grained, some silt, Reddish brown,	Y ✓ N	
49	54	5	SILTY SAND, poorly graded , very- fine grained, some silt, Light-brown,	Y ✓ N	
54	59	5	CLAYEY SAND, low plasticity, very- fine grained, Dark brown, dry	Y ✓ N	
59	64	5	CLAY, low plasticity, very- fine grained, Reddish brown, dry	Y ✓ N	
64	69	5	CLAY, High plasticity, very- fine grained, Reddish brown, dry	Y ✓ N	
69	104	35	CLAY, High plasticity, very- fine grained, Dark Brown, dry	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 06/09/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

National Water Information System: Web Interface

USGS Water Resources (Cooperator Access) Data Category: Site Information Geographic Area: United States GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

USGS 322557103502401 21S.30E.36.31321

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°25'57", Longitude 103°50'24" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,231 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1976-12-09	1998-02-19	6
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

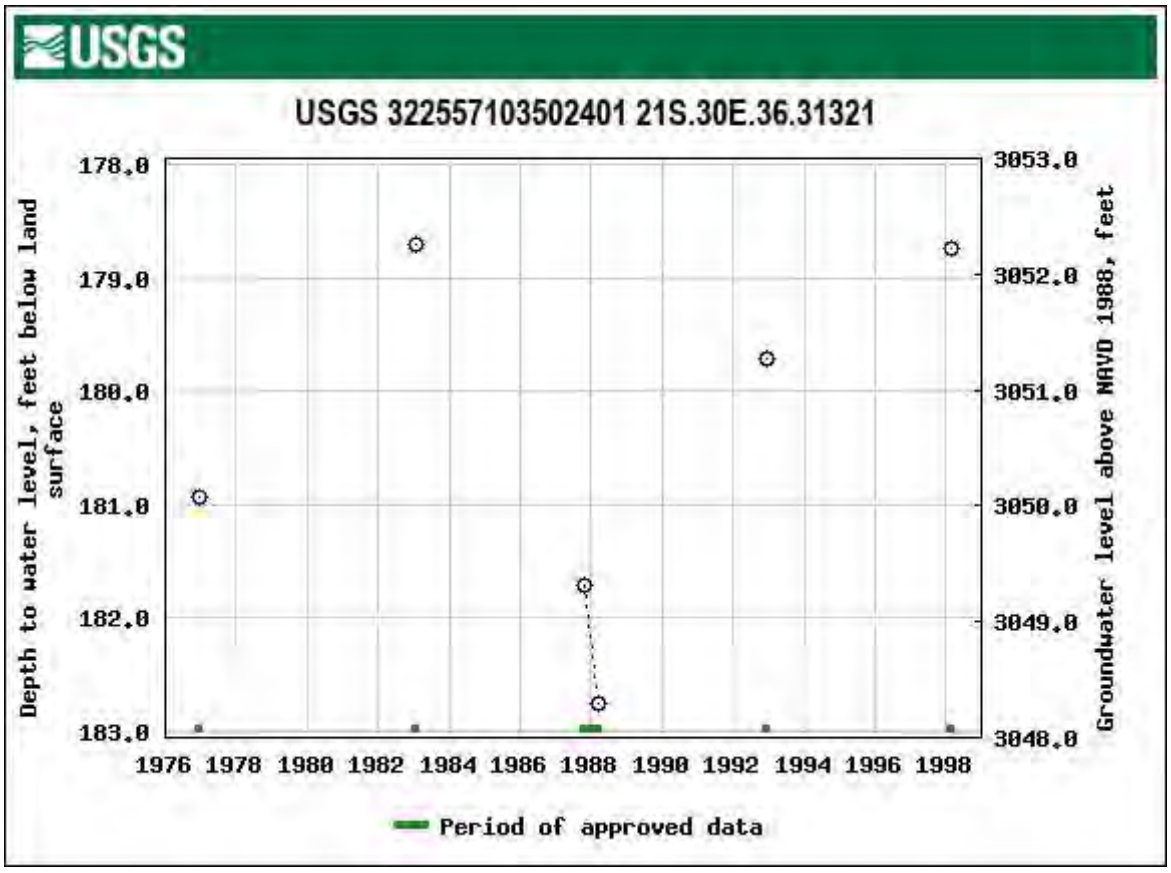
Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

---

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=322557103502401

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2021-10-27 13:44:46 EDT
0.33 0.31 sdww01


USGS
USGS 322557103502401 21S.30E.36.31321
Depth to water level, feet below land surface
178.0
179.0
180.0
181.0
182.0
183.0
Groundwater level above NAVD 1988, feet
3053.0
3052.0
3051.0
3050.0
3049.0
3048.0
1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998
Period of approved data

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: **TP1**	Date: **5/9/2022**	
Site Name: **James E Upper**		
Incident Number: **NAPP2202446534**		
Job Number: 03D2024016		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408482, -103.840634**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	344	165	Y	TP1-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, black staining and mild odor in top 0.5'.
D	86	7.5	N			1	SM	1'-2', SAA, no stain or odor.
D	<60	2.0	N	TPH1-2-3	2'-3'	2	SM	2'-3', SAA
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP2**	Date: **5/9/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408549, -103.840398**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	428	16.3	Y	TP2-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, black staining and mild odor in top 2".
D	102	1.0	N	TP2-1-2	1'-2'	1	SM	1'-2', SAA, no stain or odor.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

Sample Name: **TP3**	Date: **5/9/2022**	
Site Name: **James E Upper**		
Incident Number: **NAPP2202446534**		
Job Number: 03D2024016		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408846, -103.840405**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	766	225	Y	TP3-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, black staining and mild odor in top 4".
D	<60	142	N			1	SM	1'-2', SAA, no stain or odor.
D	<60	53	N	TP3-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP4**	Date: **5/9/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408990, -103.840415**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	336	2.5	Y	TP4-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	2.0	N	TP4-1-2	1'-2'	1	SM	1'-2', SAA.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

Sample Name: **TP5**	Date: **5/9/2022**	
Site Name: **James E Upper**		
Incident Number: **NAPP2202446534**		
Job Number: 03D2024016		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408656, -103.840210**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	336	2.5	N	TP5-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	1.2	N			1	SM	1'-2', SAA.
D	<60	0.8	N	TP5-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM	Sample Name: **TP6**	Date: **5/9/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408680, -103.840017**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	1.0	N	TP6-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	0.0	N			1	SM	1'-2', SAA.
D	<60	0.0	N	TP6-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

Sample Name: **TP7**	Date: **5/9/2022**	
Site Name: **James E Upper**		
Incident Number: **NAPP2202446534**		
Job Number: 03D2024016		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408490, -103.840287**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	>1,286	73	Y	TP7-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, gray staining and moderate odor in top 3".
D	396	1.6	N			1	SM	1'-2', SAA, no stain or odor.
D	620	1.5	N	TP7-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP8**	Date: **5/9/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408733, -103.839648**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	1.0	N	TP8-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	2.0	N	TP8-1-2	1'-2'	1	SM	1'-2', SAA.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **TP9**	Date: **5/9/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408792, -103.839257**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	0.2	N	TP9-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	1.5	N	TP9-1-2	1'-2'	1	SM	1'-2', SAA.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

Sample Name: **TP10**	Date: **5/10/2022**	
Site Name: **James E Upper**		
Incident Number: **NAPP2202446534**		
Job Number: 03D2024016		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408554, -103.840749**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	950	1.6	N	TP10-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	>1,286	0.7	N			1	SM	1'-2', SAA.
D	1,188	0.4	N	TP10-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP11**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408606, -103.840639**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	2,964	514	N	TP11-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, staining and strong odor in top 0.5'.
D	780	44	N			1	SM	1'-2', SAA, no stain or odor.
D	704	43	N	TP11-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP12**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408987, -103.840326**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	8.4	N	TP12-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	6.4	N	TP12-1-2	1'-2'	1	SM	1'-2', SAA, no stain or odor.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **TP13**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408395, -103.840267**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	4.9	N	TP13-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	2.9	N			1	SM	1'-2', SAA.
D	<60	2.6	N	TP13-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP14**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408641, -103.839569**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	3.4	N	TP14-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	1.8	N			1	SM	1'-2', SAA.
D	<60	1.5	N	TP14-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP15**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408533, -103.839569**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	1.6	N			0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	2.3	N	TP15-1-2	1'-2'	1	SM	1'-2', SAA.
D	<60	1.8	N	TP15-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP16**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408578, -103.839943**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	86	3.6	N	TP16-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	2.5	N			1	SM	1'-2', SAA.
D	<60	3.0	N	TP16-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP17**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408578, -103.839943**	Hole Diameter: 4"	Total Depth: **3'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	90	14	N	TP17-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, gray staining and slight odor in top 2".
D	<60	5.6	N			1	SM	1'-2', SAA, no stain or odor.
D	<60	4.2	N	TP17-2-3	2'-3'	2	SM	2'-3', SAA.
D			N			3	SM	

TD @ 3 feet bgs

ENSOLUM

	Sample Name: **TP18**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.409008, -103.839460**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	1.2	N	TP18-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	0.5	N	TP18-1-2	1'-2'	1	SM	1'-2', SAA.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **TP19**	Date: **5/10/2022**
	Site Name: **James E Upper**	
	Incident Number: **NAPP2202446534**	
	Job Number: 03D2024016	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: **Hand Auger**
Coordinates: **32.408632, -103.839159**	Hole Diameter: 4"	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<60	0.8	N	TP19-0-1	0'-1'	0	SM	0'-1', SAND, abundant silt, unconsolidated, no stain or odor.
D	<60	0.0	N	TP19-1-2	1'-2'	1	SM	1'-2', SAA.
D			N			2	SM	

TD @ 2 feet bgs

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
ConocoPhillips Company
James E Upper
NAPP2129846676, NAPP2200639375, & NAPP2202446534

Photograph 1 Date: 10/26/2021
Description: View of visible staining from release event NAPP2129846676.

Photograph 2 Date: 10/26/2021
Description: View of visible staining from release event NAPP2129846676.

Photograph 3 Date: 10/26/2021
Description: View of visible staining from release event NAPP2129846676.

Photograph 4 Date: 10/26/2021
Description: View of visible staining from release event NAPP2129846676.

ENSOLUM

Photographic Log
ConocoPhillips Company
James E Upper
NAPP2129846676, NAPP2200639375, & NAPP2202446534

Photograph 1 Date: 12/29/2021
Description: View of visible staining from release event NAPP2200639375.

Photograph 2 Date: 12/29/2021
Description: View of visible staining from release event NAPP2200639375.

Photograph 3 Date: 12/29/2021
Description: View of visible staining from release event NAPP2200639375.

Photograph 4 Date: 12/29/2021
Description: View of visible staining from release event NAPP2200639375.

ENSOLUM

Photographic Log
ConocoPhillips Company
James E Upper
NAPP2129846676, NAPP2200639375, & NAPP2202446534

Photograph 1 Date: 11/23/2021
Description: View of area during delineation.

Photograph 2 Date: 11/23/2021
Description: View of area during delineation.

Photograph 3 Date: 05/09/2022
Description: View of area during delineation.

Photograph 4 Date: 05/09/2022
Description: View of area during delineation.

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1510-1
Laboratory Sample Delivery Group: 31403720.000
Client Project/Site: James E Upper Battery

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/8/2021 4:28:32 PM

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

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

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

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Laboratory Job ID: 890-1510-1
SDG: 31403720.000

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Qualifiers

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Job ID: 890-1510-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1510-1

Receipt
The samples were received on 11/1/2021 10:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-1510-1), SS03 (890-1510-3), SS04 (890-1510-4), SS05 (890-1510-5) and SS08 (890-1510-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11372 and analytical batch 880-11347 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11357 and analytical batch 880-11412 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The laboratory control sample (LCS) associated with preparation batch 880-11235 and analytical batch 880-11380 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-11461 and 880-11461 and analytical batch 880-11506 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Client Sample ID: SS01

Lab Sample ID: 890-1510-1
Matrix: Solid
Date Collected: 10/26/21 12:42
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0262	F1 F2	0.00199		mg/Kg		11/03/21 12:29	11/04/21 00:03	1
Toluene	0.0320	F1	0.00199		mg/Kg		11/03/21 12:29	11/04/21 00:03	1
Ethylbenzene	0.0185	F1	0.00199		mg/Kg		11/03/21 12:29	11/04/21 00:03	1
m-Xylene & p-Xylene	0.0285	F1	0.00398		mg/Kg		11/03/21 12:29	11/04/21 00:03	1
o-Xylene	0.0174	F1 F2	0.00199		mg/Kg		11/03/21 12:29	11/04/21 00:03	1
Xylenes, Total	0.0459	F1	0.00398		mg/Kg		11/03/21 12:29	11/04/21 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*70 - 130*	*11/03/21 12:29*	*11/04/21 00:03*	*1*
1,4-Difluorobenzene (Surr)	*129*		*70 - 130*	*11/03/21 12:29*	*11/04/21 00:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.123		0.00398		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6200		249		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		11/03/21 10:59	11/04/21 22:28	5
Diesel Range Organics (Over C10-C28)	5270		249		mg/Kg		11/03/21 10:59	11/04/21 22:28	5
Oil Range Organics (Over C28-C36)	927		249		mg/Kg		11/03/21 10:59	11/04/21 22:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/03/21 10:59*	*11/04/21 22:28*	*5*
o-Terphenyl	*102*		*70 - 130*	*11/03/21 10:59*	*11/04/21 22:28*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23200		249		mg/Kg			11/06/21 15:45	50

Client Sample ID: SS02

Lab Sample ID: 890-1510-2
Matrix: Solid
Date Collected: 10/26/21 12:45
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00417		0.00200		mg/Kg		11/03/21 12:29	11/04/21 00:23	1
Toluene	0.00883		0.00200		mg/Kg		11/03/21 12:29	11/04/21 00:23	1
Ethylbenzene	0.00475		0.00200		mg/Kg		11/03/21 12:29	11/04/21 00:23	1
m-Xylene & p-Xylene	0.0119		0.00401		mg/Kg		11/03/21 12:29	11/04/21 00:23	1
o-Xylene	0.00572		0.00200		mg/Kg		11/03/21 12:29	11/04/21 00:23	1
Xylenes, Total	0.0176		0.00401		mg/Kg		11/03/21 12:29	11/04/21 00:23	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Client Sample ID: SS02 — Lab Sample ID: 890-1510-2

Date Collected: 10/26/21 12:45 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	11/03/21 12:29	11/04/21 00:23	1
1,4-Difluorobenzene (Surr)	88		70 - 130	11/03/21 12:29	11/04/21 00:23	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0354		0.00401		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3000		250		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		11/03/21 10:59	11/04/21 22:48	5
Diesel Range Organics (Over C10-C28)	2450		250		mg/Kg		11/03/21 10:59	11/04/21 22:48	5
Oil Range Organics (Over C28-C36)	554		250		mg/Kg		11/03/21 10:59	11/04/21 22:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	11/03/21 10:59	11/04/21 22:48	5
o-Terphenyl	90		70 - 130	11/03/21 10:59	11/04/21 22:48	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15600		99.0		mg/Kg			11/06/21 15:53	20

Client Sample ID: SS03 — Lab Sample ID: 890-1510-3

Date Collected: 10/26/21 12:48 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00341		0.00201		mg/Kg		11/03/21 12:29	11/04/21 00:43	1
Toluene	0.0289		0.00201		mg/Kg		11/03/21 12:29	11/04/21 00:43	1
Ethylbenzene	0.00781		0.00201		mg/Kg		11/03/21 12:29	11/04/21 00:43	1
m-Xylene & p-Xylene	0.0162		0.00402		mg/Kg		11/03/21 12:29	11/04/21 00:43	1
o-Xylene	0.00757		0.00201		mg/Kg		11/03/21 12:29	11/04/21 00:43	1
Xylenes, Total	0.0238		0.00402		mg/Kg		11/03/21 12:29	11/04/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	180	S1+	70 - 130	11/03/21 12:29	11/04/21 00:43	1
1,4-Difluorobenzene (Surr)	146	S1+	70 - 130	11/03/21 12:29	11/04/21 00:43	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0639		0.00402		mg/Kg			11/08/21 17:06	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Client Sample ID: SS03

Lab Sample ID: 890-1510-3
Matrix: Solid
Date Collected: 10/26/21 12:48
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**8640**		250		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		11/03/21 10:59	11/04/21 23:08	5
Diesel Range Organics (Over C10-C28)	**7430**		250		mg/Kg		11/03/21 10:59	11/04/21 23:08	5
Oil Range Organics (Over C28-C36)	**1210**		250		mg/Kg		11/03/21 10:59	11/04/21 23:08	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/03/21 10:59*	*11/04/21 23:08*	*5*
o-Terphenyl	*110*		*70 - 130*	*11/03/21 10:59*	*11/04/21 23:08*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29800**		250		mg/Kg			11/06/21 16:25	50

Client Sample ID: SS04

Lab Sample ID: 890-1510-4
Matrix: Solid
Date Collected: 10/26/21 12:50
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0194**		0.00200		mg/Kg		11/03/21 12:29	11/04/21 01:04	1
Toluene	**0.0190**		0.00200		mg/Kg		11/03/21 12:29	11/04/21 01:04	1
Ethylbenzene	**0.00564**		0.00200		mg/Kg		11/03/21 12:29	11/04/21 01:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/03/21 12:29	11/04/21 01:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/04/21 01:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/03/21 12:29	11/04/21 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*11/03/21 12:29*	*11/04/21 01:04*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*11/03/21 12:29*	*11/04/21 01:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0440**		0.00399		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**8190**		250		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		11/03/21 10:59	11/04/21 23:28	5
Diesel Range Organics (Over C10-C28)	**6820**		250		mg/Kg		11/03/21 10:59	11/04/21 23:28	5

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Client Sample ID: SS04 — Lab Sample ID: 890-1510-4

Date Collected: 10/26/21 12:50 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	**1370**		250		mg/Kg		11/03/21 10:59	11/04/21 23:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/03/21 10:59*	*11/04/21 23:28*	*5*
o-Terphenyl	*111*		*70 - 130*	*11/03/21 10:59*	*11/04/21 23:28*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25500**		250		mg/Kg			11/07/21 13:47	50

Client Sample ID: SS05 — Lab Sample ID: 890-1510-5

Date Collected: 10/26/21 12:53 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0120**		0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:24	1
Toluene	**0.00348**		0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/03/21 12:29	11/04/21 01:24	1
o-Xylene	**0.00372**		0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/03/21 12:29	11/04/21 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*11/03/21 12:29*	*11/04/21 01:24*	*1*
1,4-Difluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*11/03/21 12:29*	*11/04/21 01:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0192**		0.00398		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**11800**		249		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		11/03/21 10:59	11/04/21 23:49	5
Diesel Range Organics (Over C10-C28)	**10000**		249		mg/Kg		11/03/21 10:59	11/04/21 23:49	5
Oil Range Organics (Over C28-C36)	**1780**		249		mg/Kg		11/03/21 10:59	11/04/21 23:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*11/03/21 10:59*	*11/04/21 23:49*	*5*
o-Terphenyl	*110*		*70 - 130*	*11/03/21 10:59*	*11/04/21 23:49*	*5*

Client Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Client Sample ID: SS05

Lab Sample ID: 890-1510-5
Matrix: Solid
Date Collected: 10/26/21 12:53
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24800**	***-**	248		mg/Kg			11/07/21 01:42	50

Client Sample ID: SS06

Lab Sample ID: 890-1510-6
Matrix: Solid
Date Collected: 10/26/21 13:12
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 12:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 12:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 12:12	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/03/21 15:23	11/05/21 12:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 12:12	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/03/21 15:23	11/05/21 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*11/03/21 15:23*	*11/05/21 12:12*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*11/03/21 15:23*	*11/05/21 12:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**9680**		250		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		11/03/21 10:59	11/05/21 00:29	5
Diesel Range Organics (Over C10-C28)	**8260**		250		mg/Kg		11/03/21 10:59	11/05/21 00:29	5
Oil Range Organics (Over C28-C36)	**1420**		250		mg/Kg		11/03/21 10:59	11/05/21 00:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*11/03/21 10:59*	*11/05/21 00:29*	*5*
o-Terphenyl	*105*		*70 - 130*	*11/03/21 10:59*	*11/05/21 00:29*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16700**	**F1**	248		mg/Kg			11/07/21 15:11	50

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Client Sample ID: SS07 — Lab Sample ID: 890-1510-7

Date Collected: 10/26/21 13:15 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:45	1
Toluene	**0.00298**		0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/03/21 12:29	11/04/21 01:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/03/21 12:29	11/04/21 01:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/03/21 12:29	11/04/21 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/03/21 12:29*	*11/04/21 01:45*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*11/03/21 12:29*	*11/04/21 01:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**9310**		249		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		11/03/21 10:59	11/05/21 00:49	5
Diesel Range Organics (Over C10-C28)	**7910**		249		mg/Kg		11/03/21 10:59	11/05/21 00:49	5
Oil Range Organics (Over C28-C36)	**1400**		249		mg/Kg		11/03/21 10:59	11/05/21 00:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*11/03/21 10:59*	*11/05/21 00:49*	*5*
o-Terphenyl	*109*		*70 - 130*	*11/03/21 10:59*	*11/05/21 00:49*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22700**	*-	248		mg/Kg			11/07/21 01:49	50

Client Sample ID: SS08 — Lab Sample ID: 890-1510-8

Date Collected: 10/26/21 13:18 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:05	1
Toluene	**0.0106**		0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:05	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:05	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/03/21 12:29	11/04/21 02:05	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:05	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/03/21 12:29	11/04/21 02:05	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Client Sample ID: SS08 Lab Sample ID: 890-1510-8

Date Collected: 10/26/21 13:18 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130	11/03/21 12:29	11/04/21 02:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	11/03/21 12:29	11/04/21 02:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0106**		0.00396		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**8810**		250		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		11/03/21 10:59	11/05/21 01:09	5
Diesel Range Organics (Over C10-C28)	**7390**		250		mg/Kg		11/03/21 10:59	11/05/21 01:09	5
Oil Range Organics (Over C28-C36)	**1420**		250		mg/Kg		11/03/21 10:59	11/05/21 01:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	11/03/21 10:59	11/05/21 01:09	5
o-Terphenyl	103		70 - 130	11/03/21 10:59	11/05/21 01:09	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14300**	***-**	100		mg/Kg			11/07/21 00:56	20

Client Sample ID: SS09 Lab Sample ID: 890-1510-9

Date Collected: 10/26/21 13:20 **Matrix: Solid**
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:25	1
Toluene	**0.00475**		0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:25	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:25	1
m-Xylene & p-Xylene	**0.00608**		0.00397		mg/Kg		11/03/21 12:29	11/04/21 02:25	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/03/21 12:29	11/04/21 02:25	1
Xylenes, Total	**0.00608**		0.00397		mg/Kg		11/03/21 12:29	11/04/21 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	11/03/21 12:29	11/04/21 02:25	1
1,4-Difluorobenzene (Surr)	80		70 - 130	11/03/21 12:29	11/04/21 02:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0108**		0.00397		mg/Kg			11/08/21 17:06	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Client Sample ID: SS09

Date Collected: 10/26/21 13:20
Date Received: 11/01/21 10:37
Sample Depth: 0 - 0.5

Lab Sample ID: 890-1510-9

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2790**		250		mg/Kg			11/08/21 15:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		11/03/21 10:59	11/05/21 01:29	5
Diesel Range Organics (Over C10-C28)	**2190**		250		mg/Kg		11/03/21 10:59	11/05/21 01:29	5
Oil Range Organics (Over C28-C36)	**600**		250		mg/Kg		11/03/21 10:59	11/05/21 01:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/03/21 10:59*	*11/05/21 01:29*	*5*
o-Terphenyl	*98*		*70 - 130*	*11/03/21 10:59*	*11/05/21 01:29*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3230**	***-**	24.9		mg/Kg			11/07/21 01:04	5

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

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)
880-7917-A-10-D MS	Matrix Spike	129	109
880-7917-A-10-E MSD	Matrix Spike Duplicate	129	111
890-1510-1	SS01	208 S1+	129
890-1510-1 MS	SS01	135 S1+	101
890-1510-1 MSD	SS01	98	98
890-1510-2	SS02	111	88
890-1510-3	SS03	180 S1+	146 S1+
890-1510-4	SS04	138 S1+	81
890-1510-5	SS05	127	64 S1-
890-1510-6	SS06	86	81
890-1510-7	SS07	110	104
890-1510-8	SS08	134 S1+	89
890-1510-9	SS09	128	80
LCS 880-11372/1-A	Lab Control Sample	114	100
LCS 880-11387/1-A	Lab Control Sample	106	97
LCSD 880-11372/2-A	Lab Control Sample Dup	109	106
LCSD 880-11387/2-A	Lab Control Sample Dup	106	92
MB 880-11348/5-A	Method Blank	112	97
MB 880-11372/5-A	Method Blank	118	99
MB 880-11386/5-A	Method Blank	124	109
MB 880-11387/5-A	Method Blank	117	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1510-1	SS01	89	102
890-1510-2	SS02	82	90
890-1510-3	SS03	89	110
890-1510-4	SS04	96	111
890-1510-5	SS05	85	110
890-1510-6	SS06	88	105
890-1510-7	SS07	91	109
890-1510-8	SS08	87	103
890-1510-9	SS09	93	98
890-1511-A-8-C MS	Matrix Spike	102	102
890-1511-A-8-D MSD	Matrix Spike Duplicate	99	92
LCS 880-11357/2-A	Lab Control Sample	83	85
LCSD 880-11357/3-A	Lab Control Sample Dup	86	86
MB 880-11357/1-A	Method Blank	93	106

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11348/5-A
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11348

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/21 09:17	11/03/21 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*11/03/21 09:17*	*11/03/21 12:28*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/03/21 09:17*	*11/03/21 12:28*	*1*

Lab Sample ID: MB 880-11372/5-A
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11372

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/21 12:29	11/03/21 23:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*11/03/21 12:29*	*11/03/21 23:41*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/03/21 12:29*	*11/03/21 23:41*	*1*

Lab Sample ID: LCS 880-11372/1-A
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11372

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09518		mg/Kg		95	70 - 130		
Toluene			0.100	0.08412		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08327		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1721		mg/Kg		86	70 - 130		
o-Xylene			0.100	0.09410		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-11372/2-A
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11372

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08659		mg/Kg		87	70 - 130	9	35

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QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

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

Lab Sample ID: LCSD 880-11372/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11347 — **Prep Batch: 11372**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.07560		mg/Kg		76	70 - 130	11	35
Ethylbenzene			0.100	0.07731		mg/Kg		77	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1608		mg/Kg		80	70 - 130	7	35
o-Xylene			0.100	0.08457		mg/Kg		85	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1510-1 MS — **Client Sample ID: SS01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11347 — **Prep Batch: 11372**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0262	F1 F2	0.0994	0.02080	F1	mg/Kg		-5	70 - 130
Toluene	0.0320	F1	0.0994	0.02300	F1	mg/Kg		-9	70 - 130
Ethylbenzene	0.0185	F1	0.0994	0.01568	F1	mg/Kg		-3	70 - 130
m-Xylene & p-Xylene	0.0285	F1	0.199	0.04619	F1	mg/Kg		9	70 - 130
o-Xylene	0.0174	F1 F2	0.0994	0.04126	F1	mg/Kg		24	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-1510-1 MSD — **Client Sample ID: SS01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11347 — **Prep Batch: 11372**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0262	F1 F2	0.0998	0.03171	F1 F2	mg/Kg		5	70 - 130	42	35
Toluene	0.0320	F1	0.0998	0.02610	F1	mg/Kg		-6	70 - 130	13	35
Ethylbenzene	0.0185	F1	0.0998	0.02107	F1	mg/Kg		3	70 - 130	29	35
m-Xylene & p-Xylene	0.0285	F1	0.200	0.04208	F1	mg/Kg		7	70 - 130	9	35
o-Xylene	0.0174	F1 F2	0.0998	0.02220	F1 F2	mg/Kg		5	70 - 130	60	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: MB 880-11386/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11469 — **Prep Batch: 11386**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:14	11/04/21 16:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:14	11/04/21 16:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:14	11/04/21 16:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/21 15:14	11/04/21 16:56	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

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

Lab Sample ID: MB 880-11386/5-A
Matrix: Solid
Analysis Batch: 11469

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11386

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:14	11/04/21 16:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/21 15:14	11/04/21 16:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/03/21 15:14*	*11/04/21 16:56*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*11/03/21 15:14*	*11/04/21 16:56*	*1*

Lab Sample ID: MB 880-11387/5-A
Matrix: Solid
Analysis Batch: 11469

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11387

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 04:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 04:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 04:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/21 15:23	11/05/21 04:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 15:23	11/05/21 04:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/21 15:23	11/05/21 04:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/03/21 15:23*	*11/05/21 04:28*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/03/21 15:23*	*11/05/21 04:28*	*1*

Lab Sample ID: LCS 880-11387/1-A
Matrix: Solid
Analysis Batch: 11469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11387

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07396		mg/Kg		74	70 - 130		
Toluene			0.100	0.07820		mg/Kg		78	70 - 130		
Ethylbenzene			0.100	0.08094		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1603		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08280		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-11387/2-A
Matrix: Solid
Analysis Batch: 11469

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11387

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07937		mg/Kg		79	70 - 130	7	35
Toluene			0.100	0.08601		mg/Kg		86	70 - 130	10	35
Ethylbenzene			0.100	0.09638		mg/Kg		96	70 - 130	17	35
m-Xylene & p-Xylene			0.200	0.1878		mg/Kg		94	70 - 130	16	35
o-Xylene			0.100	0.08890		mg/Kg		89	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-7917-A-10-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11469 — **Prep Batch: 11387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F2 F1	0.0994	0.07460		mg/Kg		74	70 - 130
Toluene	<0.00200	U F1	0.0994	0.07676		mg/Kg		76	70 - 130
Ethylbenzene	<0.00200	U F2 F1	0.0994	0.08239		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.199	0.1574		mg/Kg		79	70 - 130
o-Xylene	<0.00200	U F2 F1	0.0994	0.07701		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-7917-A-10-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11469 — **Prep Batch: 11387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0998	0.02808	F2 F1	mg/Kg		27	70 - 130	91	35
Toluene	<0.00200	U F1	0.0998	0.05450	F1	mg/Kg		53	70 - 130	34	35
Ethylbenzene	<0.00200	U F2 F1	0.0998	0.04215	F2 F1	mg/Kg		42	70 - 130	65	35
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.200	0.08400	F2 F1	mg/Kg		42	70 - 130	61	35
o-Xylene	<0.00200	U F2 F1	0.0998	0.04830	F2 F1	mg/Kg		48	70 - 130	46	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

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

Lab Sample ID: MB 880-11357/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11412 — **Prep Batch: 11357**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/03/21 10:59	11/04/21 19:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/03/21 10:59	11/04/21 19:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/03/21 10:59	11/04/21 19:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	11/03/21 10:59	11/04/21 19:06	1
o-Terphenyl	106		70 - 130	11/03/21 10:59	11/04/21 19:06	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

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

Lab Sample ID: LCS 880-11357/2-A
Matrix: Solid
Analysis Batch: 11412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11357

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1098		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	832.0		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: LCSD 880-11357/3-A
Matrix: Solid
Analysis Batch: 11412

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11357

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1089		mg/Kg		109	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	802.1		mg/Kg		80	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 890-1511-A-8-C MS
Matrix: Solid
Analysis Batch: 11412

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11357

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	81.1	F1	997	2294	F1	mg/Kg		222	70 - 130		
Diesel Range Organics (Over C10-C28)	281		997	1461		mg/Kg		118	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 890-1511-A-8-D MSD
Matrix: Solid
Analysis Batch: 11412

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11357

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	81.1	F1	1000	1888	F1	mg/Kg		181	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	281		1000	1479		mg/Kg		120	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

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

Lab Sample ID: 890-1511-A-8-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11412 — **Prep Batch: 11357**

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	92		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11227/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11379

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/06/21 05:15	1

Lab Sample ID: LCS 880-11227/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11379

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	266.7		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-11227/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11379

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	267.5		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-1504-A-7-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	186		248	445.9		mg/Kg		105	90 - 110		

Lab Sample ID: 890-1504-A-7-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	186		248	441.5		mg/Kg		103	90 - 110	1	20

Lab Sample ID: MB 880-11235/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11380

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/06/21 22:29	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-11235/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11380

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	222.3	*-	mg/Kg		89	90 - 110		

Lab Sample ID: LCSD 880-11235/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11380

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	225.3		mg/Kg		90	90 - 110	1	20

Lab Sample ID: 890-1507-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11380

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	3290	*-	2480	5992		mg/Kg		109	90 - 110		

Lab Sample ID: 890-1507-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3290	*-	2480	5774		mg/Kg		101	90 - 110	4	20

Lab Sample ID: MB 880-11461/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11506

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/07/21 14:48	1

Lab Sample ID: LCS 880-11461/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11506

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	225.1		mg/Kg		90	90 - 110		

Lab Sample ID: LCSD 880-11461/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11506

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	226.7		mg/Kg		91	90 - 110	1	20

Lab Sample ID: 890-1510-6 MS — **Client Sample ID: SS06**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11506

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	16700	F1	12400	33440	F1	mg/Kg		135	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1510-6 MSD
Matrix: Solid
Analysis Batch: 11506

Client Sample ID: SS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16700	F1	12400	33600	F1	mg/Kg		136	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

GC VOA

Analysis Batch: 11347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Total/NA	Solid	8021B	11372
890-1510-2	SS02	Total/NA	Solid	8021B	11372
890-1510-3	SS03	Total/NA	Solid	8021B	11372
890-1510-4	SS04	Total/NA	Solid	8021B	11372
890-1510-5	SS05	Total/NA	Solid	8021B	11372
890-1510-7	SS07	Total/NA	Solid	8021B	11372
890-1510-8	SS08	Total/NA	Solid	8021B	11372
890-1510-9	SS09	Total/NA	Solid	8021B	11372
MB 880-11348/5-A	Method Blank	Total/NA	Solid	8021B	11348
MB 880-11372/5-A	Method Blank	Total/NA	Solid	8021B	11372
LCS 880-11372/1-A	Lab Control Sample	Total/NA	Solid	8021B	11372
LCSD 880-11372/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11372
890-1510-1 MS	SS01	Total/NA	Solid	8021B	11372
890-1510-1 MSD	SS01	Total/NA	Solid	8021B	11372

Prep Batch: 11348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11348/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Total/NA	Solid	5035	
890-1510-2	SS02	Total/NA	Solid	5035	
890-1510-3	SS03	Total/NA	Solid	5035	
890-1510-4	SS04	Total/NA	Solid	5035	
890-1510-5	SS05	Total/NA	Solid	5035	
890-1510-7	SS07	Total/NA	Solid	5035	
890-1510-8	SS08	Total/NA	Solid	5035	
890-1510-9	SS09	Total/NA	Solid	5035	
MB 880-11372/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11372/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11372/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1510-1 MS	SS01	Total/NA	Solid	5035	
890-1510-1 MSD	SS01	Total/NA	Solid	5035	

Prep Batch: 11386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11386/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-6	SS06	Total/NA	Solid	5035	
MB 880-11387/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11387/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11387/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-7917-A-10-D MS	Matrix Spike	Total/NA	Solid	5035	
880-7917-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-6	SS06	Total/NA	Solid	8021B	11387

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

GC VOA (Continued)

Analysis Batch: 11469 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11386/5-A	Method Blank	Total/NA	Solid	8021B	11386
MB 880-11387/5-A	Method Blank	Total/NA	Solid	8021B	11387
LCS 880-11387/1-A	Lab Control Sample	Total/NA	Solid	8021B	11387
LCSD 880-11387/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11387
880-7917-A-10-D MS	Matrix Spike	Total/NA	Solid	8021B	11387
880-7917-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11387

Analysis Batch: 11768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Total/NA	Solid	Total BTEX	
890-1510-2	SS02	Total/NA	Solid	Total BTEX	
890-1510-3	SS03	Total/NA	Solid	Total BTEX	
890-1510-4	SS04	Total/NA	Solid	Total BTEX	
890-1510-5	SS05	Total/NA	Solid	Total BTEX	
890-1510-6	SS06	Total/NA	Solid	Total BTEX	
890-1510-7	SS07	Total/NA	Solid	Total BTEX	
890-1510-8	SS08	Total/NA	Solid	Total BTEX	
890-1510-9	SS09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Total/NA	Solid	8015NM Prep	
890-1510-2	SS02	Total/NA	Solid	8015NM Prep	
890-1510-3	SS03	Total/NA	Solid	8015NM Prep	
890-1510-4	SS04	Total/NA	Solid	8015NM Prep	
890-1510-5	SS05	Total/NA	Solid	8015NM Prep	
890-1510-6	SS06	Total/NA	Solid	8015NM Prep	
890-1510-7	SS07	Total/NA	Solid	8015NM Prep	
890-1510-8	SS08	Total/NA	Solid	8015NM Prep	
890-1510-9	SS09	Total/NA	Solid	8015NM Prep	
MB 880-11357/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11357/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11357/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1511-A-8-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1511-A-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Total/NA	Solid	8015B NM	11357
890-1510-2	SS02	Total/NA	Solid	8015B NM	11357
890-1510-3	SS03	Total/NA	Solid	8015B NM	11357
890-1510-4	SS04	Total/NA	Solid	8015B NM	11357
890-1510-5	SS05	Total/NA	Solid	8015B NM	11357
890-1510-6	SS06	Total/NA	Solid	8015B NM	11357
890-1510-7	SS07	Total/NA	Solid	8015B NM	11357
890-1510-8	SS08	Total/NA	Solid	8015B NM	11357
890-1510-9	SS09	Total/NA	Solid	8015B NM	11357
MB 880-11357/1-A	Method Blank	Total/NA	Solid	8015B NM	11357
LCS 880-11357/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11357

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

GC Semi VOA (Continued)

Analysis Batch: 11412 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-11357/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11357
890-1511-A-8-C MS	Matrix Spike	Total/NA	Solid	8015B NM	11357
890-1511-A-8-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11357

Analysis Batch: 11598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Total/NA	Solid	8015 NM	
890-1510-2	SS02	Total/NA	Solid	8015 NM	
890-1510-3	SS03	Total/NA	Solid	8015 NM	
890-1510-4	SS04	Total/NA	Solid	8015 NM	
890-1510-5	SS05	Total/NA	Solid	8015 NM	
890-1510-6	SS06	Total/NA	Solid	8015 NM	
890-1510-7	SS07	Total/NA	Solid	8015 NM	
890-1510-8	SS08	Total/NA	Solid	8015 NM	
890-1510-9	SS09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Soluble	Solid	DI Leach	
890-1510-2	SS02	Soluble	Solid	DI Leach	
890-1510-3	SS03	Soluble	Solid	DI Leach	
890-1510-4	SS04	Soluble	Solid	DI Leach	
MB 880-11227/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11227/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11227/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1504-A-7-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1504-A-7-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 11235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-5	SS05	Soluble	Solid	DI Leach	
890-1510-7	SS07	Soluble	Solid	DI Leach	
890-1510-8	SS08	Soluble	Solid	DI Leach	
890-1510-9	SS09	Soluble	Solid	DI Leach	
MB 880-11235/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11235/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11235/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1507-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1507-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-1	SS01	Soluble	Solid	300.0	11227
890-1510-2	SS02	Soluble	Solid	300.0	11227
890-1510-3	SS03	Soluble	Solid	300.0	11227
890-1510-4	SS04	Soluble	Solid	300.0	11227
MB 880-11227/1-A	Method Blank	Soluble	Solid	300.0	11227
LCS 880-11227/2-A	Lab Control Sample	Soluble	Solid	300.0	11227
LCSD 880-11227/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11227

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

HPLC/IC (Continued)

Analysis Batch: 11379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1504-A-7-G MS	Matrix Spike	Soluble	Solid	300.0	11227
890-1504-A-7-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11227

Analysis Batch: 11380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-5	SS05	Soluble	Solid	300.0	11235
890-1510-7	SS07	Soluble	Solid	300.0	11235
890-1510-8	SS08	Soluble	Solid	300.0	11235
890-1510-9	SS09	Soluble	Solid	300.0	11235
MB 880-11235/1-A	Method Blank	Soluble	Solid	300.0	11235
LCS 880-11235/2-A	Lab Control Sample	Soluble	Solid	300.0	11235
LCSD 880-11235/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11235
890-1507-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	11235
890-1507-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11235

Leach Batch: 11461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-6	SS06	Soluble	Solid	DI Leach	
MB 880-11461/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11461/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11461/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1510-6 MS	SS06	Soluble	Solid	DI Leach	
890-1510-6 MSD	SS06	Soluble	Solid	DI Leach	

Analysis Batch: 11506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1510-6	SS06	Soluble	Solid	300.0	11461
MB 880-11461/1-A	Method Blank	Soluble	Solid	300.0	11461
LCS 880-11461/2-A	Lab Control Sample	Soluble	Solid	300.0	11461
LCSD 880-11461/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11461
890-1510-6 MS	SS06	Soluble	Solid	300.0	11461
890-1510-6 MSD	SS06	Soluble	Solid	300.0	11461

Lab Chronicle

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Client Sample ID: SS01

Lab Sample ID: 890-1510-1

Date Collected: 10/26/21 12:42
Matrix: Solid
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 00:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/04/21 22:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	11227	11/02/21 11:52	CH	XEN MID
Soluble	Analysis	300.0		50			11379	11/06/21 15:45	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1510-2

Date Collected: 10/26/21 12:45
Matrix: Solid
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 00:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/04/21 22:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	11227	11/02/21 11:52	CH	XEN MID
Soluble	Analysis	300.0		20			11379	11/06/21 15:53	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1510-3

Date Collected: 10/26/21 12:48
Matrix: Solid
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 00:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/04/21 23:08	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	11227	11/02/21 11:52	CH	XEN MID
Soluble	Analysis	300.0		50			11379	11/06/21 16:25	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-1510-4

Date Collected: 10/26/21 12:50
Matrix: Solid
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 01:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Client Sample ID: SS04 Lab Sample ID: 890-1510-4

Date Collected: 10/26/21 12:50 **Matrix: Solid**
Date Received: 11/01/21 10:37

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			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/04/21 23:28	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	11227	11/02/21 11:52	CH	XEN MID
Soluble	Analysis	300.0		50			11379	11/07/21 13:47	CH	XEN MID

Client Sample ID: SS05 Lab Sample ID: 890-1510-5

Date Collected: 10/26/21 12:53 **Matrix: Solid**
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 01:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/04/21 23:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		50			11380	11/07/21 01:42	CH	XEN MID

Client Sample ID: SS06 Lab Sample ID: 890-1510-6

Date Collected: 10/26/21 13:12 **Matrix: Solid**
Date Received: 11/01/21 10:37

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	11387	11/03/21 15:23	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11469	11/05/21 12:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/05/21 00:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	11461	11/04/21 12:58	SC	XEN MID
Soluble	Analysis	300.0		50			11506	11/07/21 15:11	CH	XEN MID

Client Sample ID: SS07 Lab Sample ID: 890-1510-7

Date Collected: 10/26/21 13:15 **Matrix: Solid**
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 01:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/05/21 00:49	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Client Sample ID: SS07 Lab Sample ID: 890-1510-7

Date Collected: 10/26/21 13:15 **Matrix: Solid**
Date Received: 11/01/21 10:37

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	11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		50			11380	11/07/21 01:49	CH	XEN MID

Client Sample ID: SS08 Lab Sample ID: 890-1510-8

Date Collected: 10/26/21 13:18 **Matrix: Solid**
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 02:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/05/21 01:09	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		20			11380	11/07/21 00:56	CH	XEN MID

Client Sample ID: SS09 Lab Sample ID: 890-1510-9

Date Collected: 10/26/21 13:20 **Matrix: Solid**
Date Received: 11/01/21 10:37

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	11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11347	11/04/21 02:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11357	11/03/21 10:59	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11412	11/05/21 01:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		5			11380	11/07/21 01:04	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1510-1
Project/Site: James E Upper Battery SDG: 31403720.000

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

Protocol References:

ASTM = ASTM International

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1510-1
SDG: 31403720.000

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1510-1	SS01	Solid	10/26/21 12:42	11/01/21 10:37	0 - 0.5
890-1510-2	SS02	Solid	10/26/21 12:45	11/01/21 10:37	0 - 0.5
890-1510-3	SS03	Solid	10/26/21 12:48	11/01/21 10:37	0 - 0.5
890-1510-4	SS04	Solid	10/26/21 12:50	11/01/21 10:37	0 - 0.5
890-1510-5	SS05	Solid	10/26/21 12:53	11/01/21 10:37	0 - 0.5
890-1510-6	SS06	Solid	10/26/21 13:12	11/01/21 10:37	0 - 0.5
890-1510-7	SS07	Solid	10/26/21 13:15	11/01/21 10:37	0 - 0.5
890-1510-8	SS08	Solid	10/26/21 13:18	11/01/21 10:37	0 - 0.5
890-1510-9	SS09	Solid	10/26/21 13:20	11/01/21 10:37	0 - 0.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street	Address:	3300 North A Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, TX 79705
Phone:	(817)683-2503 Email:		Kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	James E Upper Battery	Turn Around	
Project Number:	31403720.000	☒ Routine ☐ Rush	
Project Location:	Eddy county	Due Date:	
Sampler's Name:	Fatima Smith	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TMM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.6
Total Containers:		Corrected Temperature:	2.4

ANALYSIS REQUEST

Pres. Code / Parameters: TPH (EPA 8015); BTEX (EPA 8021); Chloride (EPA 300.0)

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Sample Comments
SS01	S	10/26/21	1242	0-0.5'		1	
SS02			1245				
SS03			1248				
SS04			1250				
SS05			1253				
SS06			1312				
SS07			1315				
SS08			1318				
SS09			1320				

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11/01/21 ; 1000	2		11.1.21 1037
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-489 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1510-1
Address: 1211 W Florida Ave	Due Date Requested: 11/5/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: James E Upper Battery	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	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	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8016MOD_NM/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS01 (890-1510-1)	10/26/21	12 42 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-1510-2)	10/26/21	12 45 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-1510-3)	10/26/21	12 48 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-1510-4)	10/26/21	12 50 Mountain		Solid			X	X	X	X	X	1	
SS05 (890-1510-5)	10/26/21	12 53 Mountain		Solid			X	X	X	X	X	1	
SS07 (890-1510-7)	10/26/21	13 15 Mountain		Solid			X	X	X	X	X	1	
SS08 (890-1510-8)	10/26/21	13 18 Mountain		Solid			X	X	X	X	X	1	
SS09 (890-1510-9)	10/26/21	13 20 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time:	Method of Shipment:
Relinquished by: Dee Cruz 11.1.21	Date/Time	Company	Received by: [signature] Date/Time: 11.2.21 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time 1119 Company
Relinquished by:	Date/Time	Company	Received by: Date/Time Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 3.8/3.9

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1510-1
SDG Number: 31403720.000

Login Number: 1510
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1510-1
SDG Number: 31403720.000

Login Number: 1510
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/02/21 11:25 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8/3.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1636-1
Laboratory Sample Delivery Group: 31403720.000 Task 07.02
Client Project/Site: James E Upper Battery

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/2/2021 4:37:19 PM

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

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

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

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Laboratory Job ID: 890-1636-1
SDG: 31403720.000 Task 07.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Job ID: 890-1636-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1636-1

Receipt
The samples were received on 11/24/2021 10:43 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-13342/1-A), (LCSD 880-13342/2-A), (880-8647-A-1-E), (880-8647-A-1-C MS) and (880-8647-A-1-D MSD). 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.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS10 (890-1636-1), SS11 (890-1636-2), SS12 (890-1636-3) and SS14 (890-1636-5). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Client Sample ID: SS10 Lab Sample ID: 890-1636-1

Date Collected: 11/23/21 14:47 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/30/21 09:00	12/01/21 02:32	1
Toluene	**0.00610**		0.00199		mg/Kg		11/30/21 09:00	12/01/21 02:32	1
Ethylbenzene	**0.00310**		0.00199		mg/Kg		11/30/21 09:00	12/01/21 02:32	1
m-Xylene & p-Xylene	**0.0177**		0.00398		mg/Kg		11/30/21 09:00	12/01/21 02:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/30/21 09:00	12/01/21 02:32	1
Xylenes, Total	**0.0177**		0.00398		mg/Kg		11/30/21 09:00	12/01/21 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*147*	*S1+*	*70 - 130*	*11/30/21 09:00*	*12/01/21 02:32*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*11/30/21 09:00*	*12/01/21 02:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0269**		0.00398		mg/Kg			12/01/21 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**61.9**		49.9		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 12:54	1
Diesel Range Organics (Over C10-C28)	**61.9**		49.9		mg/Kg		12/01/21 08:20	12/01/21 12:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 12:54*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 12:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**112**		4.95		mg/Kg			11/30/21 21:49	1

Client Sample ID: SS11 Lab Sample ID: 890-1636-2

Date Collected: 11/23/21 14:49 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 02:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 02:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 02:59	1
m-Xylene & p-Xylene	**0.00873**		0.00401		mg/Kg		11/30/21 09:00	12/01/21 02:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 02:59	1
Xylenes, Total	**0.00873**		0.00401		mg/Kg		11/30/21 09:00	12/01/21 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*150*	*S1+*	*70 - 130*	*11/30/21 09:00*	*12/01/21 02:59*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Client Sample ID: SS11 — Lab Sample ID: 890-1636-2

Date Collected: 11/23/21 14:49 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/30/21 09:00*	*12/01/21 02:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00873**		0.00401	mg/Kg			12/01/21 19:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/01/21 08:20	12/01/21 13:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/01/21 08:20	12/01/21 13:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/01/21 08:20	12/01/21 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 13:56*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 13:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		4.99	mg/Kg			11/30/21 22:01	1

Client Sample ID: SS12 — Lab Sample ID: 890-1636-3

Date Collected: 11/23/21 14:51 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/30/21 09:00	12/01/21 03:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/30/21 09:00	12/01/21 03:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/30/21 09:00	12/01/21 03:26	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/30/21 09:00	12/01/21 03:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/30/21 09:00	12/01/21 03:26	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/30/21 09:00	12/01/21 03:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/30/21 09:00*	*12/01/21 03:26*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*11/30/21 09:00*	*12/01/21 03:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			12/01/21 19:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**75.3**		49.9	mg/Kg			12/01/21 20:09	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Client Sample ID: SS12 Lab Sample ID: 890-1636-3

Date Collected: 11/23/21 14:51 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 14:18	1
Diesel Range Organics (Over C10-C28)	**75.3**		49.9		mg/Kg		12/01/21 08:20	12/01/21 14:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*12/01/21 08:20*	*12/01/21 14:18*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 14:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**105**		5.00		mg/Kg			11/30/21 22:12	1

Client Sample ID: SS13 Lab Sample ID: 890-1636-4

Date Collected: 11/23/21 14:55 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/30/21 09:00	12/01/21 03:53	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/30/21 09:00	12/01/21 03:53	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/30/21 09:00	12/01/21 03:53	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/30/21 09:00	12/01/21 03:53	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/30/21 09:00	12/01/21 03:53	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/30/21 09:00	12/01/21 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*11/30/21 09:00*	*12/01/21 03:53*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*11/30/21 09:00*	*12/01/21 03:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/01/21 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 14:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 14:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/01/21 08:20	12/01/21 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*12/01/21 08:20*	*12/01/21 14:39*	*1*
o-Terphenyl	*71*		*70 - 130*	*12/01/21 08:20*	*12/01/21 14:39*	*1*

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Client Sample ID: SS13 Lab Sample ID: 890-1636-4

Date Collected: 11/23/21 14:55 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.9		4.96		mg/Kg			11/30/21 22:23	1

Client Sample ID: SS14 Lab Sample ID: 890-1636-5

Date Collected: 11/23/21 14:57 **Matrix: Solid**
Date Received: 11/24/21 10:43
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 04:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 04:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 04:20	1
m-Xylene & p-Xylene	0.00703		0.00399		mg/Kg		11/30/21 09:00	12/01/21 04:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	12/01/21 04:20	1
Xylenes, Total	0.00703		0.00399		mg/Kg		11/30/21 09:00	12/01/21 04:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*149*	*S1+*	*70 - 130*	*11/30/21 09:00*	*12/01/21 04:20*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/30/21 09:00*	*12/01/21 04:20*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00703		0.00399		mg/Kg			12/01/21 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/01/21 08:20	12/01/21 15:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/01/21 08:20	12/01/21 15:00	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/01/21 08:20	12/01/21 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 15:00*	*1*
o-Terphenyl	*65*	*S1-*	*70 - 130*	*12/01/21 08:20*	*12/01/21 15:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.6		5.04		mg/Kg			11/30/21 22:58	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1636-1	SS10	147 S1+	113
890-1636-2	SS11	150 S1+	110
890-1636-3	SS12	119	87
890-1636-4	SS13	146 S1+	114
890-1636-5	SS14	149 S1+	111
LCS 880-13342/1-A	Lab Control Sample	137 S1+	121
LCSD 880-13342/2-A	Lab Control Sample Dup	133 S1+	119
MB 880-13293/70	Method Blank	79	98
MB 880-13342/5-A	Method Blank	82	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1636-1	SS10	67 S1-	69 S1-
890-1636-1 MS	SS10	73	66 S1-
890-1636-1 MSD	SS10	71	66 S1-
890-1636-2	SS11	67 S1-	67 S1-
890-1636-3	SS12	70	69 S1-
890-1636-4	SS13	71	71
890-1636-5	SS14	66 S1-	65 S1-
LCS 880-13590/2-A	Lab Control Sample	97	96
LCSD 880-13590/3-A	Lab Control Sample Dup	97	96
MB 880-13590/1-A	Method Blank	73	76

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1636-1
SDG: 31403720.000 Task 07.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13293/70
Matrix: Solid
Analysis Batch: 13293

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			11/30/21 18:13	1
Toluene	<0.00200	U	0.00200		mg/Kg			11/30/21 18:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			11/30/21 18:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			11/30/21 18:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			11/30/21 18:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			11/30/21 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*		*11/30/21 18:13*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*		*11/30/21 18:13*	*1*

Lab Sample ID: MB 880-13342/5-A
Matrix: Solid
Analysis Batch: 13293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13342

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	11/30/21 23:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	11/30/21 23:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	11/30/21 23:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/30/21 09:00	11/30/21 23:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/30/21 09:00	11/30/21 23:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/30/21 09:00	11/30/21 23:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*11/30/21 09:00*	*11/30/21 23:52*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/30/21 09:00*	*11/30/21 23:52*	*1*

Lab Sample ID: LCS 880-13342/1-A
Matrix: Solid
Analysis Batch: 13293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13342

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1076		mg/Kg		108	70 - 130		
Toluene			0.100	0.1178		mg/Kg		118	70 - 130		
Ethylbenzene			0.100	0.1084		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2447		mg/Kg		122	70 - 130		
o-Xylene			0.100	0.1187		mg/Kg		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: LCSD 880-13342/2-A
Matrix: Solid
Analysis Batch: 13293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1064		mg/Kg		106	70 - 130	1	35

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

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

Lab Sample ID: LCSD 880-13342/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13293 **Prep Batch: 13342**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1151		mg/Kg		115	70 - 130	2	35
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2450		mg/Kg		123	70 - 130	0	35
o-Xylene			0.100	0.1186		mg/Kg		119	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*133*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*

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

Lab Sample ID: MB 880-13590/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13582 **Prep Batch: 13590**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/01/21 08:20	12/01/21 11:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/01/21 08:20	12/01/21 11:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/01/21 08:20	12/01/21 11:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*12/01/21 08:20*	*12/01/21 11:53*	*1*
o-Terphenyl	*76*		*70 - 130*	*12/01/21 08:20*	*12/01/21 11:53*	*1*

Lab Sample ID: LCS 880-13590/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13582 **Prep Batch: 13590**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1092		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1027		mg/Kg		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: LCSD 880-13590/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13582 **Prep Batch: 13590**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1063		mg/Kg		106	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1052		mg/Kg		105	70 - 130	2	20

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

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

Lab Sample ID: LCSD 880-13590/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13582 **Prep Batch: 13590**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-1636-1 MS **Client Sample ID: SS10**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13582 **Prep Batch: 13590**

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	997	1287		mg/Kg		129	70 - 130
Diesel Range Organics (Over C10-C28)	61.9		997	1154		mg/Kg		110	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	66	S1-	70 - 130

Lab Sample ID: 890-1636-1 MSD **Client Sample ID: SS10**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13582 **Prep Batch: 13590**

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	1223		mg/Kg		122	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	61.9		999	1151		mg/Kg		109	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	66	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13492/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 13520

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/30/21 19:09	1

Lab Sample ID: LCS 880-13492/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 13520

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	260.7		mg/Kg		104	90 - 110

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-13492/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 13520

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	260.7		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-1636-4 MS **Client Sample ID: SS13**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 13520

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	48.9		248	296.3		mg/Kg		100	90 - 110		

Lab Sample ID: 890-1636-4 MSD **Client Sample ID: SS13**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 13520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	48.9		248	289.6		mg/Kg		97	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

GC VOA

Analysis Batch: 13293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Total/NA	Solid	8021B	13342
890-1636-2	SS11	Total/NA	Solid	8021B	13342
890-1636-3	SS12	Total/NA	Solid	8021B	13342
890-1636-4	SS13	Total/NA	Solid	8021B	13342
890-1636-5	SS14	Total/NA	Solid	8021B	13342
MB 880-13293/70	Method Blank	Total/NA	Solid	8021B	
MB 880-13342/5-A	Method Blank	Total/NA	Solid	8021B	13342
LCS 880-13342/1-A	Lab Control Sample	Total/NA	Solid	8021B	13342
LCSD 880-13342/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13342

Prep Batch: 13342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Total/NA	Solid	5035	
890-1636-2	SS11	Total/NA	Solid	5035	
890-1636-3	SS12	Total/NA	Solid	5035	
890-1636-4	SS13	Total/NA	Solid	5035	
890-1636-5	SS14	Total/NA	Solid	5035	
MB 880-13342/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13342/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13342/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 13709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Total/NA	Solid	Total BTEX	
890-1636-2	SS11	Total/NA	Solid	Total BTEX	
890-1636-3	SS12	Total/NA	Solid	Total BTEX	
890-1636-4	SS13	Total/NA	Solid	Total BTEX	
890-1636-5	SS14	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 13582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Total/NA	Solid	8015B NM	13590
890-1636-2	SS11	Total/NA	Solid	8015B NM	13590
890-1636-3	SS12	Total/NA	Solid	8015B NM	13590
890-1636-4	SS13	Total/NA	Solid	8015B NM	13590
890-1636-5	SS14	Total/NA	Solid	8015B NM	13590
MB 880-13590/1-A	Method Blank	Total/NA	Solid	8015B NM	13590
LCS 880-13590/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13590
LCSD 880-13590/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13590
890-1636-1 MS	SS10	Total/NA	Solid	8015B NM	13590
890-1636-1 MSD	SS10	Total/NA	Solid	8015B NM	13590

Prep Batch: 13590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Total/NA	Solid	8015NM Prep	
890-1636-2	SS11	Total/NA	Solid	8015NM Prep	
890-1636-3	SS12	Total/NA	Solid	8015NM Prep	
890-1636-4	SS13	Total/NA	Solid	8015NM Prep	
890-1636-5	SS14	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

GC Semi VOA (Continued)

Prep Batch: 13590 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13590/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13590/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13590/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1636-1 MS	SS10	Total/NA	Solid	8015NM Prep	
890-1636-1 MSD	SS10	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Total/NA	Solid	8015 NM	
890-1636-2	SS11	Total/NA	Solid	8015 NM	
890-1636-3	SS12	Total/NA	Solid	8015 NM	
890-1636-4	SS13	Total/NA	Solid	8015 NM	
890-1636-5	SS14	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 13492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Soluble	Solid	DI Leach	
890-1636-2	SS11	Soluble	Solid	DI Leach	
890-1636-3	SS12	Soluble	Solid	DI Leach	
890-1636-4	SS13	Soluble	Solid	DI Leach	
890-1636-5	SS14	Soluble	Solid	DI Leach	
MB 880-13492/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13492/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13492/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1636-4 MS	SS13	Soluble	Solid	DI Leach	
890-1636-4 MSD	SS13	Soluble	Solid	DI Leach	

Analysis Batch: 13520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1636-1	SS10	Soluble	Solid	300.0	13492
890-1636-2	SS11	Soluble	Solid	300.0	13492
890-1636-3	SS12	Soluble	Solid	300.0	13492
890-1636-4	SS13	Soluble	Solid	300.0	13492
890-1636-5	SS14	Soluble	Solid	300.0	13492
MB 880-13492/1-A	Method Blank	Soluble	Solid	300.0	13492
LCS 880-13492/2-A	Lab Control Sample	Soluble	Solid	300.0	13492
LCSD 880-13492/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13492
890-1636-4 MS	SS13	Soluble	Solid	300.0	13492
890-1636-4 MSD	SS13	Soluble	Solid	300.0	13492

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Client Sample ID: SS10 Lab Sample ID: 890-1636-1

Date Collected: 11/23/21 14:47 **Matrix: Solid**
Date Received: 11/24/21 10:43

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	13342	11/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13293	12/01/21 02:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13709	12/01/21 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13590	12/01/21 08:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13582	12/01/21 12:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13492	11/30/21 12:44	CA	XEN MID
Soluble	Analysis	300.0		1			13520	11/30/21 21:49	CH	XEN MID

Client Sample ID: SS11 Lab Sample ID: 890-1636-2

Date Collected: 11/23/21 14:49 **Matrix: Solid**
Date Received: 11/24/21 10:43

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	13342	11/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13293	12/01/21 02:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13709	12/01/21 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13590	12/01/21 08:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13582	12/01/21 13:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13492	11/30/21 12:44	CA	XEN MID
Soluble	Analysis	300.0		1			13520	11/30/21 22:01	CH	XEN MID

Client Sample ID: SS12 Lab Sample ID: 890-1636-3

Date Collected: 11/23/21 14:51 **Matrix: Solid**
Date Received: 11/24/21 10:43

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	13342	11/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13293	12/01/21 03:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13709	12/01/21 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13590	12/01/21 08:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13582	12/01/21 14:18	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13492	11/30/21 12:44	CA	XEN MID
Soluble	Analysis	300.0		1			13520	11/30/21 22:12	CH	XEN MID

Client Sample ID: SS13 Lab Sample ID: 890-1636-4

Date Collected: 11/23/21 14:55 **Matrix: Solid**
Date Received: 11/24/21 10:43

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	13342	11/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13293	12/01/21 03:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13709	12/01/21 19:46	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Client Sample ID: SS13 Lab Sample ID: 890-1636-4

Date Collected: 11/23/21 14:55 **Matrix: Solid**
Date Received: 11/24/21 10:43

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			13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13590	12/01/21 08:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13582	12/01/21 14:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	13492	11/30/21 12:44	CA	XEN MID
Soluble	Analysis	300.0		1			13520	11/30/21 22:23	CH	XEN MID

Client Sample ID: SS14 Lab Sample ID: 890-1636-5

Date Collected: 11/23/21 14:57 **Matrix: Solid**
Date Received: 11/24/21 10:43

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	13342	11/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13293	12/01/21 04:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13709	12/01/21 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13590	12/01/21 08:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13582	12/01/21 15:00	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	13492	11/30/21 12:44	CA	XEN MID
Soluble	Analysis	300.0		1			13520	11/30/21 22:58	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1636-1
Project/Site: James E Upper Battery SDG: 31403720.000 Task 07.02

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

Protocol References:

ASTM = ASTM International

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1636-1
SDG: 31403720.000 Task 07.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1636-1	SS10	Solid	11/23/21 14:47	11/24/21 10:43	0.5
890-1636-2	SS11	Solid	11/23/21 14:49	11/24/21 10:43	0.5
890-1636-3	SS12	Solid	11/23/21 14:51	11/24/21 10:43	0.5
890-1636-4	SS13	Solid	11/23/21 14:55	11/24/21 10:43	0.5
890-1636-5	SS14	Solid	11/23/21 14:57	11/24/21 10:43	0.5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street Bldg 1, Unit 222	Address:	3300 North A Street Bldg 1, Unit 222
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Midland, Texas 79705
Phone:	817-683-2503 Email:		kalei.jennings@wsp.com, payton.benner@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	James E Upper Battery	Turn Around	
Project Number:	31403720.000 Task 07.02	Routine ☐	
P.O. Number:		Rush: 2 DAY	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.4/1.2	Thermometer ID	TWM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

890-1636 Chain of Custody

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS10	S	11/23/21	2:47	0.5'	1	X	X	X	Discrete
SS11	S	11/23/21	2:49	0.5'	1	X	X	X	Discrete
SS12	S	11/23/21	2:51	0.5'	1	X	X	X	Discrete
SS13	S	11/23/21	2:55	0.5'	1	X	X	X	Discrete
SS14	S	11/23/21	2:57	0.5'	1	X	X	X	Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.24.211043	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-523 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1636-1
Address: 1211 W Florida Ave	Due Date Requested: 12/1/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: James E Upper Battery	Project #: 89000048			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	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	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS10 (890-1636-1)	11/23/21	14 47 Mountain		Solid			X	X	X	X	X	1	
SS11 (890-1636-2)	11/23/21	14 49 Mountain		Solid			X	X	X	X	X	1	
SS12 (890-1636-3)	11/23/21	14 51 Mountain		Solid			X	X	X	X	X	1	
SS13 (890-1636-4)	11/23/21	14 55 Mountain		Solid			X	X	X	X	X	1	
SS14 (890-1636-5)	11/23/21	14 57 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	N-Qui	11/24/21		KRAMER	11-29-21	
2					230	
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.2/3.3

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1636-1
SDG Number: 31403720.000 Task 07.02

Login Number: 1636
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1636-1
SDG Number: 31403720.000 Task 07.02

Login Number: 1636
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/29/21 02:35 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2297-1
Laboratory Sample Delivery Group: 03d2024016
Client Project/Site: James E Upper

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/18/2022 8:33:23 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: James E Upper

Laboratory Job ID: 890-2297-1
SDG: 03d2024016

Table of Contents

Eurofins Carlsbad
5/18/2022

Definitions/Glossary

Client: Ensolum Job ID: 890-2297-1
Project/Site: James E Upper SDG: 03d2024016

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Job ID: 890-2297-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2297-1

Receipt
The samples were received on 5/11/2022 11:24 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 5.6°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: TP1-0-1 (890-2297-1). 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: TP13-2-3 (890-2297-26). 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: TP3-0-1 (890-2297-5). 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: Surrogate recovery for the following sample was outside control limits: TP6-0-1 (890-2297-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-25432 and analytical batch 880-25488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP1-0-1

Lab Sample ID: 890-2297-1
Matrix: Solid
Date Collected: 05/09/22 10:16
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 15:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 15:43	1
Ethylbenzene	**0.0185**		0.00201		mg/Kg		05/16/22 09:29	05/16/22 15:43	1
m-Xylene & p-Xylene	**0.0814**		0.00402		mg/Kg		05/16/22 09:29	05/16/22 15:43	1
o-Xylene	**0.0652**		0.00201		mg/Kg		05/16/22 09:29	05/16/22 15:43	1
Xylenes, Total	**0.147**		0.00402		mg/Kg		05/16/22 09:29	05/16/22 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*05/16/22 09:29*	*05/16/22 15:43*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/16/22 09:29*	*05/16/22 15:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.165**		0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**11600**		250		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**368**		250		mg/Kg		05/12/22 13:30	05/14/22 05:42	5
Diesel Range Organics (Over C10-C28)	**8570**		250		mg/Kg		05/12/22 13:30	05/14/22 05:42	5
Oil Range Organics (Over C28-C36)	**2700**		250		mg/Kg		05/12/22 13:30	05/14/22 05:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*05/12/22 13:30*	*05/14/22 05:42*	*5*
o-Terphenyl	*99*		*70 - 130*	*05/12/22 13:30*	*05/14/22 05:42*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**292**		4.99		mg/Kg			05/16/22 15:49	1

Client Sample ID: TP1-2-3

Lab Sample ID: 890-2297-2
Matrix: Solid
Date Collected: 05/09/22 10:20
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 16:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 16:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 16:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 16:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 16:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 16:09	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP1-2-3

Date Collected: 05/09/22 10:20
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Lab Sample ID: 890-2297-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/16/22 09:29*	*05/16/22 16:09*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/16/22 09:29*	*05/16/22 16:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/13/22 22:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/13/22 22:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/13/22 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*05/12/22 13:30*	*05/13/22 22:56*	*1*
o-Terphenyl	*88*		*70 - 130*	*05/12/22 13:30*	*05/13/22 22:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**648**		4.98		mg/Kg			05/16/22 15:59	1

Client Sample ID: TP2-0-1

Date Collected: 05/09/22 11:22
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Lab Sample ID: 890-2297-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 16:35	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 16:35	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 16:35	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/16/22 09:29	05/16/22 16:35	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 16:35	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/16/22 09:29	05/16/22 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*05/16/22 09:29*	*05/16/22 16:35*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/16/22 09:29*	*05/16/22 16:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**4300**		50.0		mg/Kg			05/16/22 15:00	1

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP2-0-1

Lab Sample ID: 890-2297-3
Matrix: Solid

Date Collected: 05/09/22 11:22
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 08:38	1
Diesel Range Organics (Over C10-C28)	**3450**		50.0		mg/Kg		05/12/22 13:30	05/14/22 08:38	1
Oil Range Organics (Over C28-C36)	**846**		50.0		mg/Kg		05/12/22 13:30	05/14/22 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*05/12/22 13:30*	*05/14/22 08:38*	*1*
o-Terphenyl	*78*		*70 - 130*	*05/12/22 13:30*	*05/14/22 08:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**744**		4.96		mg/Kg			05/16/22 16:08	1

Client Sample ID: TP2-1-2

Lab Sample ID: 890-2297-4
Matrix: Solid

Date Collected: 05/09/22 11:25
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:01	1
Ethylbenzene	**0.00495**		0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/16/22 09:29	05/16/22 17:01	1
o-Xylene	**0.173**		0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:01	1
Xylenes, Total	**0.173**		0.00401		mg/Kg		05/16/22 09:29	05/16/22 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*05/16/22 09:29*	*05/16/22 17:01*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/16/22 09:29*	*05/16/22 17:01*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.178**		0.00401		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 00:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 00:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*05/12/22 13:30*	*05/14/22 00:00*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/12/22 13:30*	*05/14/22 00:00*	*1*

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP2-1-2

Lab Sample ID: 890-2297-4
Matrix: Solid
Date Collected: 05/09/22 11:25
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**323**		5.01		mg/Kg			05/16/22 16:35	1

Client Sample ID: TP3-0-1

Lab Sample ID: 890-2297-5
Matrix: Solid
Date Collected: 05/09/22 11:30
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000397	U	0.000397		mg/Kg		05/16/22 09:29	05/16/22 17:26	1
Toluene	**0.00279**		0.000397		mg/Kg		05/16/22 09:29	05/16/22 17:26	1
Ethylbenzene	**0.00807**		0.000397		mg/Kg		05/16/22 09:29	05/16/22 17:26	1
m-Xylene & p-Xylene	**0.0348**		0.000794		mg/Kg		05/16/22 09:29	05/16/22 17:26	1
o-Xylene	**0.0257**		0.000397		mg/Kg		05/16/22 09:29	05/16/22 17:26	1
Xylenes, Total	**0.0605**		0.000794		mg/Kg		05/16/22 09:29	05/16/22 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*158*	*S1+*	*70 - 130*	*05/16/22 09:29*	*05/16/22 17:26*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/16/22 09:29*	*05/16/22 17:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0714**		0.000794		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**7300**		250		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		05/12/22 13:30	05/14/22 06:25	5
Diesel Range Organics (Over C10-C28)	**5860**		250		mg/Kg		05/12/22 13:30	05/14/22 06:25	5
Oil Range Organics (Over C28-C36)	**1440**		250		mg/Kg		05/12/22 13:30	05/14/22 06:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*05/12/22 13:30*	*05/14/22 06:25*	*5*
o-Terphenyl	*85*		*70 - 130*	*05/12/22 13:30*	*05/14/22 06:25*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1020**		4.98		mg/Kg			05/16/22 16:45	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP3-2-3

Date Collected: 05/09/22 11:33
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Lab Sample ID: 890-2297-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/16/22 09:29	05/16/22 17:52	1
o-Xylene	**0.0561**		0.00200		mg/Kg		05/16/22 09:29	05/16/22 17:52	1
Xylenes, Total	**0.0561**		0.00401		mg/Kg		05/16/22 09:29	05/16/22 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*05/16/22 09:29*	*05/16/22 17:52*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*05/16/22 09:29*	*05/16/22 17:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0561**		0.00401		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 00:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 00:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*05/12/22 13:30*	*05/14/22 00:21*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/12/22 13:30*	*05/14/22 00:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.2**		4.97		mg/Kg			05/16/22 16:54	1

Client Sample ID: TP4-0-1

Date Collected: 05/09/22 12:55
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Lab Sample ID: 890-2297-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 18:17	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 18:17	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 18:17	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/16/22 09:29	05/16/22 18:17	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/16/22 18:17	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/16/22 09:29	05/16/22 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/16/22 09:29*	*05/16/22 18:17*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP4-0-1

Lab Sample ID: 890-2297-7
Matrix: Solid

Date Collected: 05/09/22 12:55
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/16/22 09:29*	*05/16/22 18:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/12/22 13:30	05/14/22 00:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/12/22 13:30	05/14/22 00:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/12/22 13:30	05/14/22 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*05/12/22 13:30*	*05/14/22 00:42*	*1*
o-Terphenyl	*79*		*70 - 130*	*05/12/22 13:30*	*05/14/22 00:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.6**		5.00	mg/Kg			05/17/22 15:44	1

Client Sample ID: TP4-1-2

Lab Sample ID: 890-2297-8
Matrix: Solid

Date Collected: 05/09/22 12:57
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:29	05/16/22 18:43	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:29	05/16/22 18:43	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:29	05/16/22 18:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/16/22 09:29	05/16/22 18:43	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:29	05/16/22 18:43	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/16/22 09:29	05/16/22 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/16/22 09:29*	*05/16/22 18:43*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/16/22 09:29*	*05/16/22 18:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/16/22 15:00	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP4-1-2

Lab Sample ID: 890-2297-8
Matrix: Solid
Date Collected: 05/09/22 12:57
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*05/12/22 13:30*	*05/14/22 01:03*	*1*
o-Terphenyl	*83*		*70 - 130*	*05/12/22 13:30*	*05/14/22 01:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**594**		4.95		mg/Kg			05/16/22 17:12	1

Client Sample ID: TP5-0-1

Lab Sample ID: 890-2297-9
Matrix: Solid
Date Collected: 05/09/22 13:00
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 19:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 19:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 19:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 19:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 19:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/16/22 09:29*	*05/16/22 19:09*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/16/22 09:29*	*05/16/22 19:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1100**		49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 05:21	1
Diesel Range Organics (Over C10-C28)	**787**		49.9		mg/Kg		05/12/22 13:30	05/14/22 05:21	1
Oil Range Organics (Over C28-C36)	**312**		49.9		mg/Kg		05/12/22 13:30	05/14/22 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*05/12/22 13:30*	*05/14/22 05:21*	*1*
o-Terphenyl	*94*		*70 - 130*	*05/12/22 13:30*	*05/14/22 05:21*	*1*

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP5-0-1

Lab Sample ID: 890-2297-9
Matrix: Solid
Date Collected: 05/09/22 13:00
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	714		4.99		mg/Kg			05/16/22 17:22	1

Client Sample ID: TP5-2-3

Lab Sample ID: 890-2297-10
Matrix: Solid
Date Collected: 05/09/22 13:03
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 20:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 20:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 20:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:29	05/16/22 20:53	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 20:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:29	05/16/22 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*05/16/22 09:29*	*05/16/22 20:53*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/16/22 09:29*	*05/16/22 20:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*05/12/22 13:30*	*05/14/22 01:25*	*1*
o-Terphenyl	*84*		*70 - 130*	*05/12/22 13:30*	*05/14/22 01:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	226		5.04		mg/Kg			05/16/22 17:49	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP6-0-1

Lab Sample ID: 890-2297-11
Matrix: Solid
Date Collected: 05/09/22 13:28
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 21:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 21:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 21:19	1
m-Xylene & p-Xylene	**0.0201**		0.00402		mg/Kg		05/16/22 09:29	05/16/22 21:19	1
o-Xylene	**0.0253**		0.00201		mg/Kg		05/16/22 09:29	05/16/22 21:19	1
Xylenes, Total	**0.0454**		0.00402		mg/Kg		05/16/22 09:29	05/16/22 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*05/16/22 09:29*	*05/16/22 21:19*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/16/22 09:29*	*05/16/22 21:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0454**		0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*64*	*S1-*	*70 - 130*	*05/12/22 13:30*	*05/14/22 01:46*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*05/12/22 13:30*	*05/14/22 01:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.9**		4.98		mg/Kg			05/16/22 17:58	1

Client Sample ID: TP6-2-3

Lab Sample ID: 890-2297-12
Matrix: Solid
Date Collected: 05/09/22 13:30
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 21:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 21:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 21:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/16/22 09:29	05/16/22 21:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 21:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/16/22 09:29	05/16/22 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 09:29*	*05/16/22 21:45*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP6-2-3

Date Collected: 05/09/22 13:30
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Lab Sample ID: 890-2297-12

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*05/16/22 09:29*	*05/16/22 21:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 02:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 02:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*05/12/22 13:30*	*05/14/22 02:08*	*1*
o-Terphenyl	*82*		*70 - 130*	*05/12/22 13:30*	*05/14/22 02:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69.8**		5.00		mg/Kg			05/16/22 18:26	1

Client Sample ID: TP7-0-1

Date Collected: 05/09/22 13:55
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Lab Sample ID: 890-2297-13

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 22:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 22:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 22:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/16/22 09:29	05/16/22 22:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 22:11	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/16/22 09:29	05/16/22 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 09:29*	*05/16/22 22:11*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/16/22 09:29*	*05/16/22 22:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**17700**		249		mg/Kg			05/16/22 15:00	1

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP7-0-1

Lab Sample ID: 890-2297-13
Matrix: Solid
Date Collected: 05/09/22 13:55
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249		mg/Kg		05/12/22 13:30	05/14/22 06:04	5
Diesel Range Organics (Over C10-C28)	**14000**		249		mg/Kg		05/12/22 13:30	05/14/22 06:04	5
Oil Range Organics (Over C28-C36)	**3740**		249		mg/Kg		05/12/22 13:30	05/14/22 06:04	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*05/12/22 13:30*	*05/14/22 06:04*	*5*
o-Terphenyl	*110*		*70 - 130*	*05/12/22 13:30*	*05/14/22 06:04*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3860**		24.8		mg/Kg			05/16/22 18:35	5

Client Sample ID: TP7-2-3

Lab Sample ID: 890-2297-14
Matrix: Solid
Date Collected: 05/09/22 13:58
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 22:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 22:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 22:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/16/22 09:29	05/16/22 22:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:29	05/16/22 22:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/16/22 09:29	05/16/22 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/16/22 09:29*	*05/16/22 22:38*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/16/22 09:29*	*05/16/22 22:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 02:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 02:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*05/12/22 13:30*	*05/14/22 02:29*	*1*
o-Terphenyl	*82*		*70 - 130*	*05/12/22 13:30*	*05/14/22 02:29*	*1*

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP7-2-3

Lab Sample ID: 890-2297-14
Matrix: Solid
Date Collected: 05/09/22 13:58
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	797		5.01		mg/Kg			05/16/22 18:45	1

Client Sample ID: TP8-0-1

Lab Sample ID: 890-2297-15
Matrix: Solid
Date Collected: 05/09/22 14:36
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 23:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/16/22 09:29*	*05/16/22 23:04*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/16/22 09:29*	*05/16/22 23:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/12/22 13:30	05/14/22 02:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/12/22 13:30	05/14/22 02:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/12/22 13:30	05/14/22 02:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*05/12/22 13:30*	*05/14/22 02:51*	*1*
o-Terphenyl	*80*		*70 - 130*	*05/12/22 13:30*	*05/14/22 02:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.5		4.98		mg/Kg			05/16/22 18:54	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP8-1-2

Date Collected: 05/09/22 14:40
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Lab Sample ID: 890-2297-16

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 23:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 23:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 23:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:29	05/16/22 23:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:29	05/16/22 23:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:29	05/16/22 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/16/22 09:29*	*05/16/22 23:30*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 09:29*	*05/16/22 23:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 03:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 03:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/14/22 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*05/12/22 13:30*	*05/14/22 03:34*	*1*
o-Terphenyl	*87*		*70 - 130*	*05/12/22 13:30*	*05/14/22 03:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.6**		5.05		mg/Kg			05/16/22 19:03	1

Client Sample ID: TP9-0-1

Date Collected: 05/09/22 14:43
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Lab Sample ID: 890-2297-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/16/22 09:29	05/16/22 23:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 23:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/16/22 09:29	05/16/22 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/16/22 09:29*	*05/16/22 23:57*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP9-0-1

Lab Sample ID: 890-2297-17
Matrix: Solid

Date Collected: 05/09/22 14:43
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/16/22 09:29*	*05/16/22 23:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/12/22 13:30	05/14/22 03:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/12/22 13:30	05/14/22 03:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/12/22 13:30	05/14/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*05/12/22 13:30*	*05/14/22 03:55*	*1*
o-Terphenyl	*72*		*70 - 130*	*05/12/22 13:30*	*05/14/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.83**		5.02	mg/Kg			05/16/22 19:12	1

Client Sample ID: TP9-1-2

Lab Sample ID: 890-2297-18
Matrix: Solid

Date Collected: 05/09/22 14:45
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/16/22 09:29	05/17/22 00:22	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/16/22 09:29	05/17/22 00:22	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/16/22 09:29	05/17/22 00:22	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/16/22 09:29	05/17/22 00:22	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/16/22 09:29	05/17/22 00:22	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/16/22 09:29	05/17/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*05/16/22 09:29*	*05/17/22 00:22*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/16/22 09:29*	*05/17/22 00:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/16/22 15:00	1

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP9-1-2

Lab Sample ID: 890-2297-18
Matrix: Solid
Date Collected: 05/09/22 14:45
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 04:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 04:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*05/12/22 13:30*	*05/14/22 04:17*	*1*
o-Terphenyl	*82*		*70 - 130*	*05/12/22 13:30*	*05/14/22 04:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			05/16/22 19:22	1

Client Sample ID: TP10-0-1

Lab Sample ID: 890-2297-19
Matrix: Solid
Date Collected: 05/10/22 09:15
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/17/22 00:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/17/22 00:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/17/22 00:48	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/16/22 09:29	05/17/22 00:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:29	05/17/22 00:48	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/16/22 09:29	05/17/22 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 09:29*	*05/17/22 00:48*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/16/22 09:29*	*05/17/22 00:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 04:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 04:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 04:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*05/12/22 13:30*	*05/14/22 04:38*	*1*
o-Terphenyl	*91*		*70 - 130*	*05/12/22 13:30*	*05/14/22 04:38*	*1*

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP10-0-1

Lab Sample ID: 890-2297-19
Matrix: Solid
Date Collected: 05/10/22 09:15
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1650		25.0		mg/Kg			05/14/22 02:18	5

Client Sample ID: TP10-2-3

Lab Sample ID: 890-2297-20
Matrix: Solid
Date Collected: 05/10/22 09:18
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 02:59	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 02:59	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 02:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 02:59	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 02:59	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*05/16/22 09:33*	*05/17/22 02:59*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/16/22 09:33*	*05/17/22 02:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 05:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 05:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:30	05/14/22 05:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*05/12/22 13:30*	*05/14/22 05:00*	*1*
o-Terphenyl	*77*		*70 - 130*	*05/12/22 13:30*	*05/14/22 05:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		25.0		mg/Kg			05/14/22 02:46	5

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP11-0-1

Lab Sample ID: 890-2297-21
Matrix: Solid
Date Collected: 05/10/22 09:45
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199		mg/Kg		05/16/22 09:33	05/17/22 06:04	100
Toluene	**0.268**		0.199		mg/Kg		05/16/22 09:33	05/17/22 06:04	100
Ethylbenzene	**0.273**		0.199		mg/Kg		05/16/22 09:33	05/17/22 06:04	100
m-Xylene & p-Xylene	**8.48**		0.398		mg/Kg		05/16/22 09:33	05/17/22 06:04	100
o-Xylene	**7.33**		0.199		mg/Kg		05/16/22 09:33	05/17/22 06:04	100
Xylenes, Total	**15.8**		0.398		mg/Kg		05/16/22 09:33	05/17/22 06:04	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*05/16/22 09:33*	*05/17/22 06:04*	*100*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/16/22 09:33*	*05/17/22 06:04*	*100*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**16.4**		0.398		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**16500**		250		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**1780**		250		mg/Kg		05/12/22 13:33	05/13/22 14:12	5
Diesel Range Organics (Over C10-C28)	**11700**		250		mg/Kg		05/12/22 13:33	05/13/22 14:12	5
Oil Range Organics (Over C28-C36)	**2980**		250		mg/Kg		05/12/22 13:33	05/13/22 14:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/12/22 13:33*	*05/13/22 14:12*	*5*
o-Terphenyl	*96*		*70 - 130*	*05/12/22 13:33*	*05/13/22 14:12*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3220**		24.9		mg/Kg			05/14/22 02:55	5

Client Sample ID: TP11-2-3

Lab Sample ID: 890-2297-22
Matrix: Solid
Date Collected: 05/10/22 09:48
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 03:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 03:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 03:19	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/16/22 09:33	05/17/22 03:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 03:19	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/16/22 09:33	05/17/22 03:19	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP11-2-3

Lab Sample ID: 890-2297-22
Matrix: Solid
Date Collected: 05/10/22 09:48
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/16/22 09:33*	*05/17/22 03:19*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/16/22 09:33*	*05/17/22 03:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**145**		49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 16:04	1
Diesel Range Organics (Over C10-C28)	**52.3**		49.9		mg/Kg		05/12/22 13:33	05/13/22 16:04	1
Oil Range Organics (Over C28-C36)	**92.3**		49.9		mg/Kg		05/12/22 13:33	05/13/22 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*82*		*70 - 130*	*05/12/22 13:33*	*05/13/22 16:04*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/12/22 13:33*	*05/13/22 16:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1160**		24.8		mg/Kg			05/14/22 03:04	5

Client Sample ID: TP12-0-1

Lab Sample ID: 890-2297-23
Matrix: Solid
Date Collected: 05/10/22 10:15
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 03:40	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 03:40	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 03:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 03:40	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 03:40	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 03:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/16/22 09:33*	*05/17/22 03:40*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/16/22 09:33*	*05/17/22 03:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP12-0-1

Lab Sample ID: 890-2297-23
Matrix: Solid
Date Collected: 05/10/22 10:15
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**56.9**		50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 13:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1	50.0		mg/Kg		05/12/22 13:33	05/13/22 13:05	1
Oil Range Organics (Over C28-C36)	**56.9**		50.0		mg/Kg		05/12/22 13:33	05/13/22 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*05/12/22 13:33*	*05/13/22 13:05*	*1*
o-Terphenyl	*89*		*70 - 130*	*05/12/22 13:33*	*05/13/22 13:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.68**		4.96		mg/Kg			05/14/22 03:14	1

Client Sample ID: TP12-1-2

Lab Sample ID: 890-2297-24
Matrix: Solid
Date Collected: 05/10/22 10:17
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 04:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 04:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 04:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/16/22 09:33	05/17/22 04:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 04:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/16/22 09:33	05/17/22 04:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*05/16/22 09:33*	*05/17/22 04:01*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/16/22 09:33*	*05/17/22 04:01*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**72.5**		49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 16:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 16:26	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP12-1-2

Lab Sample ID: 890-2297-24
Matrix: Solid
Date Collected: 05/10/22 10:17
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	**72.5**		49.9		mg/Kg		05/12/22 13:33	05/13/22 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*05/12/22 13:33*	*05/13/22 16:26*	*1*
o-Terphenyl	*96*		*70 - 130*	*05/12/22 13:33*	*05/13/22 16:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.3**		5.00		mg/Kg			05/14/22 03:41	1

Client Sample ID: TP13-0-1

Lab Sample ID: 890-2297-25
Matrix: Solid
Date Collected: 05/10/22 10:45
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 04:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 04:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 04:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:33	05/17/22 04:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 04:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:33	05/17/22 04:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 09:33*	*05/17/22 04:21*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/16/22 09:33*	*05/17/22 04:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**211**		50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 15:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 15:19	1
Oll Range Organics (Over C28-C36)	**211**		50.0		mg/Kg		05/12/22 13:33	05/13/22 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*05/12/22 13:33*	*05/13/22 15:19*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/12/22 13:33*	*05/13/22 15:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP13-0-1

Lab Sample ID: 890-2297-25
Matrix: Solid
Date Collected: 05/10/22 10:45
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**54.6**		5.01		mg/Kg			05/14/22 03:51	1

Client Sample ID: TP13-2-3

Lab Sample ID: 890-2297-26
Matrix: Solid
Date Collected: 05/10/22 10:47
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:33	05/17/22 04:42	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:33	05/17/22 04:42	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:33	05/17/22 04:42	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/16/22 09:33	05/17/22 04:42	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/16/22 09:33	05/17/22 04:42	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/16/22 09:33	05/17/22 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*05/16/22 09:33*	*05/17/22 04:42*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/16/22 09:33*	*05/17/22 04:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**63.3**		49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 16:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 16:47	1
Oil Range Organics (Over C28-C36)	**63.3**		49.9		mg/Kg		05/12/22 13:33	05/13/22 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*05/12/22 13:33*	*05/13/22 16:47*	*1*
o-Terphenyl	*96*		*70 - 130*	*05/12/22 13:33*	*05/13/22 16:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**54.5**		4.98		mg/Kg			05/14/22 04:00	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP14-0-1

Lab Sample ID: 890-2297-27
Matrix: Solid

Date Collected: 05/10/22 11:25
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 05:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 05:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 05:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/16/22 09:33	05/17/22 05:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 05:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/16/22 09:33	05/17/22 05:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/16/22 09:33*	*05/17/22 05:03*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/16/22 09:33*	*05/17/22 05:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**323**		49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 14:56	1
Diesel Range Organics (Over C10-C28)	**166**		49.9		mg/Kg		05/12/22 13:33	05/13/22 14:56	1
Oil Range Organics (Over C28-C36)	**157**		49.9		mg/Kg		05/12/22 13:33	05/13/22 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*05/12/22 13:33*	*05/13/22 14:56*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/12/22 13:33*	*05/13/22 14:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.8**		5.05		mg/Kg			05/14/22 04:09	1

Client Sample ID: TP14-2-3

Lab Sample ID: 890-2297-28
Matrix: Solid

Date Collected: 05/10/22 11:28
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 05:23	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 05:23	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 05:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 05:23	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 05:23	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 05:23	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP14-2-3

Lab Sample ID: 890-2297-28

Date Collected: 05/10/22 11:28
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 09:33*	*05/17/22 05:23*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/16/22 09:33*	*05/17/22 05:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**57.4**		50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 17:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 17:10	1
Oil Range Organics (Over C28-C36)	**57.4**		50.0		mg/Kg		05/12/22 13:33	05/13/22 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*87*		*70 - 130*	*05/12/22 13:33*	*05/13/22 17:10*	*1*
o-Terphenyl	*97*		*70 - 130*	*05/12/22 13:33*	*05/13/22 17:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.4**		4.97		mg/Kg			05/14/22 04:18	1

Client Sample ID: TP15-1-2

Lab Sample ID: 890-2297-29

Date Collected: 05/10/22 12:30
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 07:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 07:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 07:28	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/16/22 09:33	05/17/22 07:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 07:28	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/16/22 09:33	05/17/22 07:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/16/22 09:33*	*05/17/22 07:28*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/16/22 09:33*	*05/17/22 07:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/16/22 17:06	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP15-1-2

Lab Sample ID: 890-2297-29
Matrix: Solid
Date Collected: 05/10/22 12:30
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**50.2**		50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 17:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 17:53	1
Oil Range Organics (Over C28-C36)	**50.2**		50.0		mg/Kg		05/12/22 13:33	05/13/22 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/12/22 13:33*	*05/13/22 17:53*	*1*
o-Terphenyl	*106*		*70 - 130*	*05/12/22 13:33*	*05/13/22 17:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.17**		4.98		mg/Kg			05/14/22 04:27	1

Client Sample ID: TP15-2-3

Lab Sample ID: 890-2297-30
Matrix: Solid
Date Collected: 05/10/22 12:32
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 07:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 07:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 07:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/16/22 09:33	05/17/22 07:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/16/22 09:33	05/17/22 07:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/16/22 09:33	05/17/22 07:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 09:33*	*05/17/22 07:48*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/16/22 09:33*	*05/17/22 07:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 18:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 18:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 18:15	1

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP15-2-3

Lab Sample ID: 890-2297-30
Matrix: Solid
Date Collected: 05/10/22 12:32
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*86*		*70 - 130*	*05/12/22 13:33*	*05/13/22 18:15*	*1*
o-Terphenyl	*97*		*70 - 130*	*05/12/22 13:33*	*05/13/22 18:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.55**		5.04	mg/Kg			05/14/22 04:55	1

Client Sample ID: TP16-0-1

Lab Sample ID: 890-2297-31
Matrix: Solid
Date Collected: 05/10/22 12:55
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/16/22 09:33	05/17/22 08:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/16/22 09:33	05/17/22 08:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/16/22 09:33	05/17/22 08:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/16/22 09:33	05/17/22 08:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/16/22 09:33	05/17/22 08:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/16/22 09:33	05/17/22 08:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/16/22 09:33*	*05/17/22 08:09*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 09:33*	*05/17/22 08:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**289**		50.0	mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/12/22 13:33	05/13/22 15:41	1
Diesel Range Organics (Over C10-C28)	**165**		50.0	mg/Kg		05/12/22 13:33	05/13/22 15:41	1
Oil Range Organics (Over C28-C36)	**124**		50.0	mg/Kg		05/12/22 13:33	05/13/22 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*90*		*70 - 130*	*05/12/22 13:33*	*05/13/22 15:41*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/12/22 13:33*	*05/13/22 15:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**129**		4.99	mg/Kg			05/14/22 05:04	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP16-2-3

Lab Sample ID: 890-2297-32

Date Collected: 05/10/22 12:58
Matrix: Solid
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 08:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 08:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 08:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 08:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 08:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 08:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/16/22 09:33*	*05/17/22 08:30*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 09:33*	*05/17/22 08:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 18:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 18:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*05/12/22 13:33*	*05/13/22 18:37*	*1*
o-Terphenyl	*99*		*70 - 130*	*05/12/22 13:33*	*05/13/22 18:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.1**		4.98		mg/Kg			05/14/22 05:32	1

Client Sample ID: TP17-0-1

Lab Sample ID: 890-2297-33

Date Collected: 05/10/22 13:23
Matrix: Solid
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 08:50	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 08:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 08:50	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/16/22 09:33	05/17/22 08:50	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 08:50	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/16/22 09:33	05/17/22 08:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*05/16/22 09:33*	*05/17/22 08:50*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP17-0-1

Lab Sample ID: 890-2297-33
Matrix: Solid

Date Collected: 05/10/22 13:23
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/16/22 09:33*	*05/17/22 08:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1000**		49.8	mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		05/12/22 13:33	05/13/22 14:34	1
Diesel Range Organics (Over C10-C28)	**776**		49.8	mg/Kg		05/12/22 13:33	05/13/22 14:34	1
Oil Range Organics (Over C28-C36)	**225**		49.8	mg/Kg		05/12/22 13:33	05/13/22 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*80*		*70 - 130*	*05/12/22 13:33*	*05/13/22 14:34*	*1*
o-Terphenyl	*86*		*70 - 130*	*05/12/22 13:33*	*05/13/22 14:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**195**		4.95	mg/Kg			05/14/22 05:41	1

Client Sample ID: TP17-2-3

Lab Sample ID: 890-2297-34
Matrix: Solid

Date Collected: 05/10/22 13:25
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		05/16/22 09:33	05/17/22 09:11	1
Toluene	<0.00202	U	0.00202	mg/Kg		05/16/22 09:33	05/17/22 09:11	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		05/16/22 09:33	05/17/22 09:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		05/16/22 09:33	05/17/22 09:11	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		05/16/22 09:33	05/17/22 09:11	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		05/16/22 09:33	05/17/22 09:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 09:33*	*05/17/22 09:11*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 09:33*	*05/17/22 09:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			05/16/22 17:06	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP17-2-3

Lab Sample ID: 890-2297-34
Matrix: Solid
Date Collected: 05/10/22 13:25
Date Received: 05/11/22 11:24
Sample Depth: 2 - 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 18:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 18:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*05/12/22 13:33*	*05/13/22 18:59*	*1*
o-Terphenyl	*93*		*70 - 130*	*05/12/22 13:33*	*05/13/22 18:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.1**		4.97		mg/Kg			05/14/22 05:50	1

Client Sample ID: TP18-0-1

Lab Sample ID: 890-2297-35
Matrix: Solid
Date Collected: 05/10/22 14:08
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 09:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 09:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 09:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 09:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 09:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 09:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/16/22 09:33*	*05/17/22 09:32*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*05/16/22 09:33*	*05/17/22 09:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/12/22 13:33	05/13/22 19:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/12/22 13:33	05/13/22 19:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/12/22 13:33	05/13/22 19:21	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP18-0-1

Lab Sample ID: 890-2297-35
Matrix: Solid
Date Collected: 05/10/22 14:08
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	05/12/22 13:33	05/13/22 19:21	1
o-Terphenyl	92		70 - 130	05/12/22 13:33	05/13/22 19:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01	mg/Kg			05/14/22 05:59	1

Client Sample ID: TP18-1-2

Lab Sample ID: 890-2297-36
Matrix: Solid
Date Collected: 05/10/22 14:10
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:33	05/17/22 09:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:33	05/17/22 09:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:33	05/17/22 09:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/16/22 09:33	05/17/22 09:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/16/22 09:33	05/17/22 09:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/16/22 09:33	05/17/22 09:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	05/16/22 09:33	05/17/22 09:52	1
1,4-Difluorobenzene (Surr)	103		70 - 130	05/16/22 09:33	05/17/22 09:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/12/22 13:33	05/13/22 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/12/22 13:33	05/13/22 19:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/12/22 13:33	05/13/22 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	05/12/22 13:33	05/13/22 19:43	1
o-Terphenyl	98		70 - 130	05/12/22 13:33	05/13/22 19:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98	mg/Kg			05/14/22 06:09	1

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP19-0-1

Date Collected: 05/10/22 14:13
Date Received: 05/11/22 11:24
Sample Depth: 0 - 1

Lab Sample ID: 890-2297-37
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 10:13	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 10:13	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 10:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 10:13	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 09:33	05/17/22 10:13	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 09:33	05/17/22 10:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/16/22 09:33*	*05/17/22 10:13*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/16/22 09:33*	*05/17/22 10:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 20:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 20:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/12/22 13:33*	*05/13/22 20:04*	*1*
o-Terphenyl	*102*		*70 - 130*	*05/12/22 13:33*	*05/13/22 20:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/Kg			05/14/22 06:18	1

Client Sample ID: TP19-1-2

Date Collected: 05/10/22 14:15
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Lab Sample ID: 890-2297-38
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 10:34	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 10:34	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 10:34	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/16/22 09:33	05/17/22 10:34	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/16/22 09:33	05/17/22 10:34	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/16/22 09:33	05/17/22 10:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 09:33*	*05/17/22 10:34*	*1*

Client Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP19-1-2

Date Collected: 05/10/22 14:15
Date Received: 05/11/22 11:24
Sample Depth: 1 - 2

Lab Sample ID: 890-2297-38

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*05/16/22 09:33*	*05/17/22 10:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/16/22 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/16/22 15:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 20:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 20:26	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/12/22 13:33	05/13/22 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*05/12/22 13:33*	*05/13/22 20:26*	*1*
o-Terphenyl	*91*		*70 - 130*	*05/12/22 13:33*	*05/13/22 20:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			05/14/22 06:27	1

Surrogate Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
890-2293-A-8-D MS	Matrix Spike	103	94										
890-2293-A-8-E MSD	Matrix Spike Duplicate	108	104										
890-2297-1	TP1-0-1	135 S1+	100										
890-2297-2	TP1-2-3	96	87										
890-2297-3	TP2-0-1	89	91										
890-2297-4	TP2-1-2	92	90										
890-2297-5	TP3-0-1	158 S1+	86										
890-2297-6	TP3-2-3	116	116										
890-2297-7	TP4-0-1	99	88										
890-2297-8	TP4-1-2	108	88										
890-2297-9	TP5-0-1	108	90										
890-2297-10	TP5-2-3	115	91										
890-2297-11	TP6-0-1	125	89										
890-2297-12	TP6-2-3	102	107										
890-2297-13	TP7-0-1	103	99										
890-2297-14	TP7-2-3	108	99										
890-2297-15	TP8-0-1	113	95										
890-2297-16	TP8-1-2	108	102										
890-2297-17	TP9-0-1	106	89										
890-2297-18	TP9-1-2	110	96										
890-2297-19	TP10-0-1	103	90										
890-2297-20	TP10-2-3	117	91										
890-2297-20 MS	TP10-2-3	123	98										
890-2297-20 MSD	TP10-2-3	104	104										
890-2297-21	TP11-0-1	109	95										
890-2297-22	TP11-2-3	101	104										
890-2297-23	TP12-0-1	113	100										
890-2297-24	TP12-1-2	127	96										
890-2297-25	TP13-0-1	103	98										
890-2297-26	TP13-2-3	137 S1+	91										
890-2297-27	TP14-0-1	106	97										
890-2297-28	TP14-2-3	103	96										
890-2297-29	TP15-1-2	95	98										
890-2297-30	TP15-2-3	102	100										
890-2297-31	TP16-0-1	101	102										
890-2297-32	TP16-2-3	100	102										
890-2297-33	TP17-0-1	110	104										
890-2297-34	TP17-2-3	102	103										
890-2297-35	TP18-0-1	96	101										
890-2297-36	TP18-1-2	102	103										
890-2297-37	TP19-0-1	98	104										
890-2297-38	TP19-1-2	103	106										
LCS 880-25602/1-A	Lab Control Sample	112	93										
LCS 880-25603/1-A	Lab Control Sample	97	102										
LCSD 880-25602/2-A	Lab Control Sample Dup	100	90										
LCSD 880-25603/2-A	Lab Control Sample Dup	114	97										
MB 880-25601/5-A	Method Blank	99	98										
MB 880-25602/5-A	Method Blank	79	91										
MB 880-25603/5-A	Method Blank	106	93										

Surrogate Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-2297-1	TP1-0-1	74	99										
890-2297-2	TP1-2-3	82	88										
890-2297-2 MS	TP1-2-3	81	78										
890-2297-2 MSD	TP1-2-3	84	81										
890-2297-3	TP2-0-1	74	78										
890-2297-4	TP2-1-2	74	81										
890-2297-5	TP3-0-1	79	85										
890-2297-6	TP3-2-3	83	90										
890-2297-7	TP4-0-1	76	79										
890-2297-8	TP4-1-2	76	83										
890-2297-9	TP5-0-1	88	94										
890-2297-10	TP5-2-3	78	84										
890-2297-11	TP6-0-1	64 S1-	66 S1-										
890-2297-12	TP6-2-3	75	82										
890-2297-13	TP7-0-1	81	110										
890-2297-14	TP7-2-3	75	82										
890-2297-15	TP8-0-1	78	80										
890-2297-16	TP8-1-2	82	87										
890-2297-17	TP9-0-1	70	72										
890-2297-18	TP9-1-2	79	82										
890-2297-19	TP10-0-1	85	91										
890-2297-20	TP10-2-3	71	77										
890-2297-21	TP11-0-1	105	96										
890-2297-22	TP11-2-3	82	90										
890-2297-23	TP12-0-1	89	89										
890-2297-23 MS	TP12-0-1	87	81										
890-2297-23 MSD	TP12-0-1	78	73										
890-2297-24	TP12-1-2	85	96										
890-2297-25	TP13-0-1	88	92										
890-2297-26	TP13-2-3	85	96										
890-2297-27	TP14-0-1	87	90										
890-2297-28	TP14-2-3	87	97										
890-2297-29	TP15-1-2	96	106										
890-2297-30	TP15-2-3	86	97										
890-2297-31	TP16-0-1	90	92										
890-2297-32	TP16-2-3	91	99										
890-2297-33	TP17-0-1	80	86										
890-2297-34	TP17-2-3	82	93										
890-2297-35	TP18-0-1	82	92										
890-2297-36	TP18-1-2	86	98										
890-2297-37	TP19-0-1	95	102										
890-2297-38	TP19-1-2	84	91										
LCS 880-25431/2-A	Lab Control Sample	108	110										
LCS 880-25432/2-A	Lab Control Sample	96	96										
LCSD 880-25431/3-A	Lab Control Sample Dup	107	108										
LCSD 880-25432/3-A	Lab Control Sample Dup	96	94										

Surrogate Summary

Client: Ensolum Job ID: 890-2297-1
Project/Site: James E Upper SDG: 03d2024016

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)								
MB 880-25431/1-A	Method Blank	99	109								
MB 880-25432/1-A	Method Blank	83	91								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25601/5-A
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25601

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:24	05/16/22 15:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:24	05/16/22 15:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:24	05/16/22 15:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:24	05/16/22 15:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:24	05/16/22 15:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:24	05/16/22 15:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/16/22 09:24*	*05/16/22 15:54*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/16/22 09:24*	*05/16/22 15:54*	*1*

Lab Sample ID: MB 880-25602/5-A
Matrix: Solid
Analysis Batch: 25594

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25602

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 14:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 14:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 14:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:29	05/16/22 14:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:29	05/16/22 14:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*05/16/22 09:29*	*05/16/22 14:48*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/16/22 09:29*	*05/16/22 14:48*	*1*

Lab Sample ID: LCS 880-25602/1-A
Matrix: Solid
Analysis Batch: 25594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25602

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1120		mg/Kg		112	70 - 130		
Toluene			0.100	0.1170		mg/Kg		117	70 - 130		
Ethylbenzene			0.100	0.1145		mg/Kg		115	70 - 130		
m-Xylene & p-Xylene			0.200	0.2273		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1129		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-25602/2-A
Matrix: Solid
Analysis Batch: 25594

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25602

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1007		mg/Kg		101	70 - 130	11	35

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Lab Sample ID: LCSD 880-25602/2-A
Matrix: Solid
Analysis Batch: 25594

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25602

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1075		mg/Kg		108	70 - 130	8	35
Ethylbenzene			0.100	0.1068		mg/Kg		107	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2165		mg/Kg		108	70 - 130	5	35
o-Xylene			0.100	0.1056		mg/Kg		106	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 890-2293-A-8-D MS
Matrix: Solid
Analysis Batch: 25594

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25602

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.101	0.1032		mg/Kg		102	70 - 130
Toluene	<0.00199	U	0.101	0.1059		mg/Kg		105	70 - 130
Ethylbenzene	<0.00199	U	0.101	0.1057		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2157		mg/Kg		107	70 - 130
o-Xylene	<0.00199	U	0.101	0.1050		mg/Kg		104	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-2293-A-8-E MSD
Matrix: Solid
Analysis Batch: 25594

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 25602

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1120		mg/Kg		111	70 - 130	8	35
Toluene	<0.00199	U	0.101	0.1046		mg/Kg		104	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.101	0.1040		mg/Kg		103	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2099		mg/Kg		104	70 - 130	3	35
o-Xylene	<0.00199	U	0.101	0.1020		mg/Kg		101	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 880-25603/5-A
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25603

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 02:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 02:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 02:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/22 09:33	05/17/22 02:37	1

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Lab Sample ID: MB 880-25603/5-A
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25603

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 09:33	05/17/22 02:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 09:33	05/17/22 02:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/16/22 09:33*	*05/17/22 02:37*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/16/22 09:33*	*05/17/22 02:37*	*1*

Lab Sample ID: LCS 880-25603/1-A
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25603

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1020		mg/Kg		102	70 - 130		
Toluene			0.100	0.09657		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.08230		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene			0.200	0.1704		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08715		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-25603/2-A
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25603

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09287		mg/Kg		93	70 - 130	9	35
Toluene			0.100	0.09913		mg/Kg		99	70 - 130	3	35
Ethylbenzene			0.100	0.09105		mg/Kg		91	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.1961		mg/Kg		98	70 - 130	14	35
o-Xylene			0.100	0.1006		mg/Kg		101	70 - 130	14	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-2297-20 MS
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: TP10-2-3
Prep Type: Total/NA
Prep Batch: 25603

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.07805		mg/Kg		78	70 - 130		
Toluene	<0.00201	U	0.0996	0.08683		mg/Kg		87	70 - 130		
Ethylbenzene	<0.00201	U	0.0996	0.08164		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1758		mg/Kg		88	70 - 130		
o-Xylene	<0.00201	U	0.0996	0.08956		mg/Kg		90	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Lab Sample ID: 890-2297-20 MS
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: TP10-2-3
Prep Type: Total/NA
Prep Batch: 25603

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-2297-20 MSD
Matrix: Solid
Analysis Batch: 25595

Client Sample ID: TP10-2-3
Prep Type: Total/NA
Prep Batch: 25603

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0992	0.08756		mg/Kg		88	70 - 130	11	35
Toluene	<0.00201	U	0.0992	0.08365		mg/Kg		84	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0992	0.07194		mg/Kg		73	70 - 130	13	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1481		mg/Kg		75	70 - 130	17	35
o-Xylene	<0.00201	U	0.0992	0.07526		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-25431/1-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25431

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/13/22 21:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/13/22 21:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:30	05/13/22 21:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	05/12/22 13:30	05/13/22 21:51	1
o-Terphenyl	109		70 - 130	05/12/22 13:30	05/13/22 21:51	1

Lab Sample ID: LCS 880-25431/2-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25431

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1085		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1079		mg/Kg		108	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	110		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Lab Sample ID: LCSD 880-25431/3-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25431

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1184		mg/Kg		118	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1067		mg/Kg		107	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 890-2297-2 MS
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: TP1-2-3
Prep Type: Total/NA
Prep Batch: 25431

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	1000	1047		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	749.1		mg/Kg		75	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: 890-2297-2 MSD
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: TP1-2-3
Prep Type: Total/NA
Prep Batch: 25431

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	998	1148		mg/Kg		111	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	785.3		mg/Kg		79	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Lab Sample ID: MB 880-25432/1-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25432

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 12:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 12:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 13:33	05/13/22 12:00	1

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Lab Sample ID: MB 880-25432/1-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25432

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	05/12/22 13:33	05/13/22 12:00	1
o-Terphenyl	91		70 - 130	05/12/22 13:33	05/13/22 12:00	1

Lab Sample ID: LCS 880-25432/2-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25432

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1044		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1001		mg/Kg		100	70 - 130		

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

Lab Sample ID: LCSD 880-25432/3-A
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25432

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1048		mg/Kg		105	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1005		mg/Kg		100	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2297-23 MS
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: TP12-0-1
Prep Type: Total/NA
Prep Batch: 25432

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	1057		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	1000	718.3	F1	mg/Kg		68	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	81		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Lab Sample ID: 890-2297-23 MSD
Matrix: Solid
Analysis Batch: 25488

Client Sample ID: TP12-0-1
Prep Type: Total/NA
Prep Batch: 25432

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	949.1		mg/Kg		93	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	647.4	F1	mg/Kg		61	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*78*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-25439/1-A
Matrix: Solid
Analysis Batch: 25556

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/16/22 14:45	1

Lab Sample ID: LCS 880-25439/2-A
Matrix: Solid
Analysis Batch: 25556

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	239.4		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-25439/3-A
Matrix: Solid
Analysis Batch: 25556

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	239.1		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-2297-9 MS
Matrix: Solid
Analysis Batch: 25556

Client Sample ID: TP5-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	714		250	962.7		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2297-9 MSD
Matrix: Solid
Analysis Batch: 25556

Client Sample ID: TP5-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	714		250	961.9		mg/Kg		99	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-25440/1-A
Matrix: Solid
Analysis Batch: 25557

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/14/22 01:51	1

Lab Sample ID: LCS 880-25440/2-A
Matrix: Solid
Analysis Batch: 25557

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.2		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-25440/3-A
Matrix: Solid
Analysis Batch: 25557

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	245.6		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 890-2297-19 MS
Matrix: Solid
Analysis Batch: 25557

Client Sample ID: TP10-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1650		1250	2870		mg/Kg		98	90 - 110		

Lab Sample ID: 890-2297-19 MSD
Matrix: Solid
Analysis Batch: 25557

Client Sample ID: TP10-0-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1650		1250	2885		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-2297-29 MS
Matrix: Solid
Analysis Batch: 25557

Client Sample ID: TP15-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	8.17		249	261.5		mg/Kg		102	90 - 110		

Lab Sample ID: 890-2297-29 MSD
Matrix: Solid
Analysis Batch: 25557

Client Sample ID: TP15-1-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.17		249	259.4		mg/Kg		101	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

GC VOA

Analysis Batch: 25594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Total/NA	Solid	8021B	25602
890-2297-2	TP1-2-3	Total/NA	Solid	8021B	25602
890-2297-3	TP2-0-1	Total/NA	Solid	8021B	25602
890-2297-4	TP2-1-2	Total/NA	Solid	8021B	25602
890-2297-5	TP3-0-1	Total/NA	Solid	8021B	25602
890-2297-6	TP3-2-3	Total/NA	Solid	8021B	25602
890-2297-7	TP4-0-1	Total/NA	Solid	8021B	25602
890-2297-8	TP4-1-2	Total/NA	Solid	8021B	25602
890-2297-9	TP5-0-1	Total/NA	Solid	8021B	25602
890-2297-10	TP5-2-3	Total/NA	Solid	8021B	25602
890-2297-11	TP6-0-1	Total/NA	Solid	8021B	25602
890-2297-12	TP6-2-3	Total/NA	Solid	8021B	25602
890-2297-13	TP7-0-1	Total/NA	Solid	8021B	25602
890-2297-14	TP7-2-3	Total/NA	Solid	8021B	25602
890-2297-15	TP8-0-1	Total/NA	Solid	8021B	25602
890-2297-16	TP8-1-2	Total/NA	Solid	8021B	25602
890-2297-17	TP9-0-1	Total/NA	Solid	8021B	25602
890-2297-18	TP9-1-2	Total/NA	Solid	8021B	25602
890-2297-19	TP10-0-1	Total/NA	Solid	8021B	25602
MB 880-25602/5-A	Method Blank	Total/NA	Solid	8021B	25602
LCS 880-25602/1-A	Lab Control Sample	Total/NA	Solid	8021B	25602
LCSD 880-25602/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25602
890-2293-A-8-D MS	Matrix Spike	Total/NA	Solid	8021B	25602
890-2293-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25602

Analysis Batch: 25595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-20	TP10-2-3	Total/NA	Solid	8021B	25603
890-2297-21	TP11-0-1	Total/NA	Solid	8021B	25603
890-2297-22	TP11-2-3	Total/NA	Solid	8021B	25603
890-2297-23	TP12-0-1	Total/NA	Solid	8021B	25603
890-2297-24	TP12-1-2	Total/NA	Solid	8021B	25603
890-2297-25	TP13-0-1	Total/NA	Solid	8021B	25603
890-2297-26	TP13-2-3	Total/NA	Solid	8021B	25603
890-2297-27	TP14-0-1	Total/NA	Solid	8021B	25603
890-2297-28	TP14-2-3	Total/NA	Solid	8021B	25603
890-2297-29	TP15-1-2	Total/NA	Solid	8021B	25603
890-2297-30	TP15-2-3	Total/NA	Solid	8021B	25603
890-2297-31	TP16-0-1	Total/NA	Solid	8021B	25603
890-2297-32	TP16-2-3	Total/NA	Solid	8021B	25603
890-2297-33	TP17-0-1	Total/NA	Solid	8021B	25603
890-2297-34	TP17-2-3	Total/NA	Solid	8021B	25603
890-2297-35	TP18-0-1	Total/NA	Solid	8021B	25603
890-2297-36	TP18-1-2	Total/NA	Solid	8021B	25603
890-2297-37	TP19-0-1	Total/NA	Solid	8021B	25603
890-2297-38	TP19-1-2	Total/NA	Solid	8021B	25603
MB 880-25601/5-A	Method Blank	Total/NA	Solid	8021B	25601
MB 880-25603/5-A	Method Blank	Total/NA	Solid	8021B	25603
LCS 880-25603/1-A	Lab Control Sample	Total/NA	Solid	8021B	25603
LCSD 880-25603/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25603
890-2297-20 MS	TP10-2-3	Total/NA	Solid	8021B	25603

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

GC VOA (Continued)

Analysis Batch: 25595 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-20 MSD	TP10-2-3	Total/NA	Solid	8021B	25603

Prep Batch: 25601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25601/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 25602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Total/NA	Solid	5035	
890-2297-2	TP1-2-3	Total/NA	Solid	5035	
890-2297-3	TP2-0-1	Total/NA	Solid	5035	
890-2297-4	TP2-1-2	Total/NA	Solid	5035	
890-2297-5	TP3-0-1	Total/NA	Solid	5035	
890-2297-6	TP3-2-3	Total/NA	Solid	5035	
890-2297-7	TP4-0-1	Total/NA	Solid	5035	
890-2297-8	TP4-1-2	Total/NA	Solid	5035	
890-2297-9	TP5-0-1	Total/NA	Solid	5035	
890-2297-10	TP5-2-3	Total/NA	Solid	5035	
890-2297-11	TP6-0-1	Total/NA	Solid	5035	
890-2297-12	TP6-2-3	Total/NA	Solid	5035	
890-2297-13	TP7-0-1	Total/NA	Solid	5035	
890-2297-14	TP7-2-3	Total/NA	Solid	5035	
890-2297-15	TP8-0-1	Total/NA	Solid	5035	
890-2297-16	TP8-1-2	Total/NA	Solid	5035	
890-2297-17	TP9-0-1	Total/NA	Solid	5035	
890-2297-18	TP9-1-2	Total/NA	Solid	5035	
890-2297-19	TP10-0-1	Total/NA	Solid	5035	
MB 880-25602/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25602/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25602/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2293-A-8-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2293-A-8-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 25603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-20	TP10-2-3	Total/NA	Solid	5035	
890-2297-21	TP11-0-1	Total/NA	Solid	5035	
890-2297-22	TP11-2-3	Total/NA	Solid	5035	
890-2297-23	TP12-0-1	Total/NA	Solid	5035	
890-2297-24	TP12-1-2	Total/NA	Solid	5035	
890-2297-25	TP13-0-1	Total/NA	Solid	5035	
890-2297-26	TP13-2-3	Total/NA	Solid	5035	
890-2297-27	TP14-0-1	Total/NA	Solid	5035	
890-2297-28	TP14-2-3	Total/NA	Solid	5035	
890-2297-29	TP15-1-2	Total/NA	Solid	5035	
890-2297-30	TP15-2-3	Total/NA	Solid	5035	
890-2297-31	TP16-0-1	Total/NA	Solid	5035	
890-2297-32	TP16-2-3	Total/NA	Solid	5035	
890-2297-33	TP17-0-1	Total/NA	Solid	5035	
890-2297-34	TP17-2-3	Total/NA	Solid	5035	
890-2297-35	TP18-0-1	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

GC VOA (Continued)

Prep Batch: 25603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-36	TP18-1-2	Total/NA	Solid	5035	
890-2297-37	TP19-0-1	Total/NA	Solid	5035	
890-2297-38	TP19-1-2	Total/NA	Solid	5035	
MB 880-25603/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25603/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25603/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2297-20 MS	TP10-2-3	Total/NA	Solid	5035	
890-2297-20 MSD	TP10-2-3	Total/NA	Solid	5035	

Analysis Batch: 25665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Total/NA	Solid	Total BTEX	
890-2297-2	TP1-2-3	Total/NA	Solid	Total BTEX	
890-2297-3	TP2-0-1	Total/NA	Solid	Total BTEX	
890-2297-4	TP2-1-2	Total/NA	Solid	Total BTEX	
890-2297-5	TP3-0-1	Total/NA	Solid	Total BTEX	
890-2297-6	TP3-2-3	Total/NA	Solid	Total BTEX	
890-2297-7	TP4-0-1	Total/NA	Solid	Total BTEX	
890-2297-8	TP4-1-2	Total/NA	Solid	Total BTEX	
890-2297-9	TP5-0-1	Total/NA	Solid	Total BTEX	
890-2297-10	TP5-2-3	Total/NA	Solid	Total BTEX	
890-2297-11	TP6-0-1	Total/NA	Solid	Total BTEX	
890-2297-12	TP6-2-3	Total/NA	Solid	Total BTEX	
890-2297-13	TP7-0-1	Total/NA	Solid	Total BTEX	
890-2297-14	TP7-2-3	Total/NA	Solid	Total BTEX	
890-2297-15	TP8-0-1	Total/NA	Solid	Total BTEX	
890-2297-16	TP8-1-2	Total/NA	Solid	Total BTEX	
890-2297-17	TP9-0-1	Total/NA	Solid	Total BTEX	
890-2297-18	TP9-1-2	Total/NA	Solid	Total BTEX	
890-2297-19	TP10-0-1	Total/NA	Solid	Total BTEX	
890-2297-20	TP10-2-3	Total/NA	Solid	Total BTEX	
890-2297-21	TP11-0-1	Total/NA	Solid	Total BTEX	
890-2297-22	TP11-2-3	Total/NA	Solid	Total BTEX	
890-2297-23	TP12-0-1	Total/NA	Solid	Total BTEX	
890-2297-24	TP12-1-2	Total/NA	Solid	Total BTEX	
890-2297-25	TP13-0-1	Total/NA	Solid	Total BTEX	
890-2297-26	TP13-2-3	Total/NA	Solid	Total BTEX	
890-2297-27	TP14-0-1	Total/NA	Solid	Total BTEX	
890-2297-28	TP14-2-3	Total/NA	Solid	Total BTEX	
890-2297-29	TP15-1-2	Total/NA	Solid	Total BTEX	
890-2297-30	TP15-2-3	Total/NA	Solid	Total BTEX	
890-2297-31	TP16-0-1	Total/NA	Solid	Total BTEX	
890-2297-32	TP16-2-3	Total/NA	Solid	Total BTEX	
890-2297-33	TP17-0-1	Total/NA	Solid	Total BTEX	
890-2297-34	TP17-2-3	Total/NA	Solid	Total BTEX	
890-2297-35	TP18-0-1	Total/NA	Solid	Total BTEX	
890-2297-36	TP18-1-2	Total/NA	Solid	Total BTEX	
890-2297-37	TP19-0-1	Total/NA	Solid	Total BTEX	
890-2297-38	TP19-1-2	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

GC Semi VOA

Prep Batch: 25431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Total/NA	Solid	8015NM Prep	
890-2297-2	TP1-2-3	Total/NA	Solid	8015NM Prep	
890-2297-3	TP2-0-1	Total/NA	Solid	8015NM Prep	
890-2297-4	TP2-1-2	Total/NA	Solid	8015NM Prep	
890-2297-5	TP3-0-1	Total/NA	Solid	8015NM Prep	
890-2297-6	TP3-2-3	Total/NA	Solid	8015NM Prep	
890-2297-7	TP4-0-1	Total/NA	Solid	8015NM Prep	
890-2297-8	TP4-1-2	Total/NA	Solid	8015NM Prep	
890-2297-9	TP5-0-1	Total/NA	Solid	8015NM Prep	
890-2297-10	TP5-2-3	Total/NA	Solid	8015NM Prep	
890-2297-11	TP6-0-1	Total/NA	Solid	8015NM Prep	
890-2297-12	TP6-2-3	Total/NA	Solid	8015NM Prep	
890-2297-13	TP7-0-1	Total/NA	Solid	8015NM Prep	
890-2297-14	TP7-2-3	Total/NA	Solid	8015NM Prep	
890-2297-15	TP8-0-1	Total/NA	Solid	8015NM Prep	
890-2297-16	TP8-1-2	Total/NA	Solid	8015NM Prep	
890-2297-17	TP9-0-1	Total/NA	Solid	8015NM Prep	
890-2297-18	TP9-1-2	Total/NA	Solid	8015NM Prep	
890-2297-19	TP10-0-1	Total/NA	Solid	8015NM Prep	
890-2297-20	TP10-2-3	Total/NA	Solid	8015NM Prep	
MB 880-25431/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25431/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25431/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2297-2 MS	TP1-2-3	Total/NA	Solid	8015NM Prep	
890-2297-2 MSD	TP1-2-3	Total/NA	Solid	8015NM Prep	

Prep Batch: 25432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-21	TP11-0-1	Total/NA	Solid	8015NM Prep	
890-2297-22	TP11-2-3	Total/NA	Solid	8015NM Prep	
890-2297-23	TP12-0-1	Total/NA	Solid	8015NM Prep	
890-2297-24	TP12-1-2	Total/NA	Solid	8015NM Prep	
890-2297-25	TP13-0-1	Total/NA	Solid	8015NM Prep	
890-2297-26	TP13-2-3	Total/NA	Solid	8015NM Prep	
890-2297-27	TP14-0-1	Total/NA	Solid	8015NM Prep	
890-2297-28	TP14-2-3	Total/NA	Solid	8015NM Prep	
890-2297-29	TP15-1-2	Total/NA	Solid	8015NM Prep	
890-2297-30	TP15-2-3	Total/NA	Solid	8015NM Prep	
890-2297-31	TP16-0-1	Total/NA	Solid	8015NM Prep	
890-2297-32	TP16-2-3	Total/NA	Solid	8015NM Prep	
890-2297-33	TP17-0-1	Total/NA	Solid	8015NM Prep	
890-2297-34	TP17-2-3	Total/NA	Solid	8015NM Prep	
890-2297-35	TP18-0-1	Total/NA	Solid	8015NM Prep	
890-2297-36	TP18-1-2	Total/NA	Solid	8015NM Prep	
890-2297-37	TP19-0-1	Total/NA	Solid	8015NM Prep	
890-2297-38	TP19-1-2	Total/NA	Solid	8015NM Prep	
MB 880-25432/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25432/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25432/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2297-23 MS	TP12-0-1	Total/NA	Solid	8015NM Prep	
890-2297-23 MSD	TP12-0-1	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

GC Semi VOA

Analysis Batch: 25488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Total/NA	Solid	8015B NM	25431
890-2297-2	TP1-2-3	Total/NA	Solid	8015B NM	25431
890-2297-3	TP2-0-1	Total/NA	Solid	8015B NM	25431
890-2297-4	TP2-1-2	Total/NA	Solid	8015B NM	25431
890-2297-5	TP3-0-1	Total/NA	Solid	8015B NM	25431
890-2297-6	TP3-2-3	Total/NA	Solid	8015B NM	25431
890-2297-7	TP4-0-1	Total/NA	Solid	8015B NM	25431
890-2297-8	TP4-1-2	Total/NA	Solid	8015B NM	25431
890-2297-9	TP5-0-1	Total/NA	Solid	8015B NM	25431
890-2297-10	TP5-2-3	Total/NA	Solid	8015B NM	25431
890-2297-11	TP6-0-1	Total/NA	Solid	8015B NM	25431
890-2297-12	TP6-2-3	Total/NA	Solid	8015B NM	25431
890-2297-13	TP7-0-1	Total/NA	Solid	8015B NM	25431
890-2297-14	TP7-2-3	Total/NA	Solid	8015B NM	25431
890-2297-15	TP8-0-1	Total/NA	Solid	8015B NM	25431
890-2297-16	TP8-1-2	Total/NA	Solid	8015B NM	25431
890-2297-17	TP9-0-1	Total/NA	Solid	8015B NM	25431
890-2297-18	TP9-1-2	Total/NA	Solid	8015B NM	25431
890-2297-19	TP10-0-1	Total/NA	Solid	8015B NM	25431
890-2297-20	TP10-2-3	Total/NA	Solid	8015B NM	25431
890-2297-21	TP11-0-1	Total/NA	Solid	8015B NM	25432
890-2297-22	TP11-2-3	Total/NA	Solid	8015B NM	25432
890-2297-23	TP12-0-1	Total/NA	Solid	8015B NM	25432
890-2297-24	TP12-1-2	Total/NA	Solid	8015B NM	25432
890-2297-25	TP13-0-1	Total/NA	Solid	8015B NM	25432
890-2297-26	TP13-2-3	Total/NA	Solid	8015B NM	25432
890-2297-27	TP14-0-1	Total/NA	Solid	8015B NM	25432
890-2297-28	TP14-2-3	Total/NA	Solid	8015B NM	25432
890-2297-29	TP15-1-2	Total/NA	Solid	8015B NM	25432
890-2297-30	TP15-2-3	Total/NA	Solid	8015B NM	25432
890-2297-31	TP16-0-1	Total/NA	Solid	8015B NM	25432
890-2297-32	TP16-2-3	Total/NA	Solid	8015B NM	25432
890-2297-33	TP17-0-1	Total/NA	Solid	8015B NM	25432
890-2297-34	TP17-2-3	Total/NA	Solid	8015B NM	25432
890-2297-35	TP18-0-1	Total/NA	Solid	8015B NM	25432
890-2297-36	TP18-1-2	Total/NA	Solid	8015B NM	25432
890-2297-37	TP19-0-1	Total/NA	Solid	8015B NM	25432
890-2297-38	TP19-1-2	Total/NA	Solid	8015B NM	25432
MB 880-25431/1-A	Method Blank	Total/NA	Solid	8015B NM	25431
MB 880-25432/1-A	Method Blank	Total/NA	Solid	8015B NM	25432
LCS 880-25431/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25431
LCS 880-25432/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25432
LCSD 880-25431/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25431
LCSD 880-25432/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25432
890-2297-2 MS	TP1-2-3	Total/NA	Solid	8015B NM	25431
890-2297-2 MSD	TP1-2-3	Total/NA	Solid	8015B NM	25431
890-2297-23 MS	TP12-0-1	Total/NA	Solid	8015B NM	25432
890-2297-23 MSD	TP12-0-1	Total/NA	Solid	8015B NM	25432

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

GC Semi VOA

Analysis Batch: 25646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Total/NA	Solid	8015 NM	
890-2297-2	TP1-2-3	Total/NA	Solid	8015 NM	
890-2297-3	TP2-0-1	Total/NA	Solid	8015 NM	
890-2297-4	TP2-1-2	Total/NA	Solid	8015 NM	
890-2297-5	TP3-0-1	Total/NA	Solid	8015 NM	
890-2297-6	TP3-2-3	Total/NA	Solid	8015 NM	
890-2297-7	TP4-0-1	Total/NA	Solid	8015 NM	
890-2297-8	TP4-1-2	Total/NA	Solid	8015 NM	
890-2297-9	TP5-0-1	Total/NA	Solid	8015 NM	
890-2297-10	TP5-2-3	Total/NA	Solid	8015 NM	
890-2297-11	TP6-0-1	Total/NA	Solid	8015 NM	
890-2297-12	TP6-2-3	Total/NA	Solid	8015 NM	
890-2297-13	TP7-0-1	Total/NA	Solid	8015 NM	
890-2297-14	TP7-2-3	Total/NA	Solid	8015 NM	
890-2297-15	TP8-0-1	Total/NA	Solid	8015 NM	
890-2297-16	TP8-1-2	Total/NA	Solid	8015 NM	
890-2297-17	TP9-0-1	Total/NA	Solid	8015 NM	
890-2297-18	TP9-1-2	Total/NA	Solid	8015 NM	
890-2297-19	TP10-0-1	Total/NA	Solid	8015 NM	
890-2297-20	TP10-2-3	Total/NA	Solid	8015 NM	
890-2297-21	TP11-0-1	Total/NA	Solid	8015 NM	
890-2297-22	TP11-2-3	Total/NA	Solid	8015 NM	
890-2297-23	TP12-0-1	Total/NA	Solid	8015 NM	
890-2297-24	TP12-1-2	Total/NA	Solid	8015 NM	
890-2297-25	TP13-0-1	Total/NA	Solid	8015 NM	
890-2297-26	TP13-2-3	Total/NA	Solid	8015 NM	
890-2297-27	TP14-0-1	Total/NA	Solid	8015 NM	
890-2297-28	TP14-2-3	Total/NA	Solid	8015 NM	
890-2297-29	TP15-1-2	Total/NA	Solid	8015 NM	
890-2297-30	TP15-2-3	Total/NA	Solid	8015 NM	
890-2297-31	TP16-0-1	Total/NA	Solid	8015 NM	
890-2297-32	TP16-2-3	Total/NA	Solid	8015 NM	
890-2297-33	TP17-0-1	Total/NA	Solid	8015 NM	
890-2297-34	TP17-2-3	Total/NA	Solid	8015 NM	
890-2297-35	TP18-0-1	Total/NA	Solid	8015 NM	
890-2297-36	TP18-1-2	Total/NA	Solid	8015 NM	
890-2297-37	TP19-0-1	Total/NA	Solid	8015 NM	
890-2297-38	TP19-1-2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 25439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Soluble	Solid	DI Leach	
890-2297-2	TP1-2-3	Soluble	Solid	DI Leach	
890-2297-3	TP2-0-1	Soluble	Solid	DI Leach	
890-2297-4	TP2-1-2	Soluble	Solid	DI Leach	
890-2297-5	TP3-0-1	Soluble	Solid	DI Leach	
890-2297-6	TP3-2-3	Soluble	Solid	DI Leach	
890-2297-7	TP4-0-1	Soluble	Solid	DI Leach	
890-2297-8	TP4-1-2	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

HPLC/IC (Continued)

Leach Batch: 25439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-9	TP5-0-1	Soluble	Solid	DI Leach	
890-2297-10	TP5-2-3	Soluble	Solid	DI Leach	
890-2297-11	TP6-0-1	Soluble	Solid	DI Leach	
890-2297-12	TP6-2-3	Soluble	Solid	DI Leach	
890-2297-13	TP7-0-1	Soluble	Solid	DI Leach	
890-2297-14	TP7-2-3	Soluble	Solid	DI Leach	
890-2297-15	TP8-0-1	Soluble	Solid	DI Leach	
890-2297-16	TP8-1-2	Soluble	Solid	DI Leach	
890-2297-17	TP9-0-1	Soluble	Solid	DI Leach	
890-2297-18	TP9-1-2	Soluble	Solid	DI Leach	
MB 880-25439/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25439/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25439/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2297-9 MS	TP5-0-1	Soluble	Solid	DI Leach	
890-2297-9 MSD	TP5-0-1	Soluble	Solid	DI Leach	

Leach Batch: 25440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-19	TP10-0-1	Soluble	Solid	DI Leach	
890-2297-20	TP10-2-3	Soluble	Solid	DI Leach	
890-2297-21	TP11-0-1	Soluble	Solid	DI Leach	
890-2297-22	TP11-2-3	Soluble	Solid	DI Leach	
890-2297-23	TP12-0-1	Soluble	Solid	DI Leach	
890-2297-24	TP12-1-2	Soluble	Solid	DI Leach	
890-2297-25	TP13-0-1	Soluble	Solid	DI Leach	
890-2297-26	TP13-2-3	Soluble	Solid	DI Leach	
890-2297-27	TP14-0-1	Soluble	Solid	DI Leach	
890-2297-28	TP14-2-3	Soluble	Solid	DI Leach	
890-2297-29	TP15-1-2	Soluble	Solid	DI Leach	
890-2297-30	TP15-2-3	Soluble	Solid	DI Leach	
890-2297-31	TP16-0-1	Soluble	Solid	DI Leach	
890-2297-32	TP16-2-3	Soluble	Solid	DI Leach	
890-2297-33	TP17-0-1	Soluble	Solid	DI Leach	
890-2297-34	TP17-2-3	Soluble	Solid	DI Leach	
890-2297-35	TP18-0-1	Soluble	Solid	DI Leach	
890-2297-36	TP18-1-2	Soluble	Solid	DI Leach	
890-2297-37	TP19-0-1	Soluble	Solid	DI Leach	
890-2297-38	TP19-1-2	Soluble	Solid	DI Leach	
MB 880-25440/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25440/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25440/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2297-19 MS	TP10-0-1	Soluble	Solid	DI Leach	
890-2297-19 MSD	TP10-0-1	Soluble	Solid	DI Leach	
890-2297-29 MS	TP15-1-2	Soluble	Solid	DI Leach	
890-2297-29 MSD	TP15-1-2	Soluble	Solid	DI Leach	

Analysis Batch: 25556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-1	TP1-0-1	Soluble	Solid	300.0	25439
890-2297-2	TP1-2-3	Soluble	Solid	300.0	25439
890-2297-3	TP2-0-1	Soluble	Solid	300.0	25439

QC Association Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

HPLC/IC (Continued)

Analysis Batch: 25556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-4	TP2-1-2	Soluble	Solid	300.0	25439
890-2297-5	TP3-0-1	Soluble	Solid	300.0	25439
890-2297-6	TP3-2-3	Soluble	Solid	300.0	25439
890-2297-7	TP4-0-1	Soluble	Solid	300.0	25439
890-2297-8	TP4-1-2	Soluble	Solid	300.0	25439
890-2297-9	TP5-0-1	Soluble	Solid	300.0	25439
890-2297-10	TP5-2-3	Soluble	Solid	300.0	25439
890-2297-11	TP6-0-1	Soluble	Solid	300.0	25439
890-2297-12	TP6-2-3	Soluble	Solid	300.0	25439
890-2297-13	TP7-0-1	Soluble	Solid	300.0	25439
890-2297-14	TP7-2-3	Soluble	Solid	300.0	25439
890-2297-15	TP8-0-1	Soluble	Solid	300.0	25439
890-2297-16	TP8-1-2	Soluble	Solid	300.0	25439
890-2297-17	TP9-0-1	Soluble	Solid	300.0	25439
890-2297-18	TP9-1-2	Soluble	Solid	300.0	25439
MB 880-25439/1-A	Method Blank	Soluble	Solid	300.0	25439
LCS 880-25439/2-A	Lab Control Sample	Soluble	Solid	300.0	25439
LCSD 880-25439/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25439
890-2297-9 MS	TP5-0-1	Soluble	Solid	300.0	25439
890-2297-9 MSD	TP5-0-1	Soluble	Solid	300.0	25439

Analysis Batch: 25557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2297-19	TP10-0-1	Soluble	Solid	300.0	25440
890-2297-20	TP10-2-3	Soluble	Solid	300.0	25440
890-2297-21	TP11-0-1	Soluble	Solid	300.0	25440
890-2297-22	TP11-2-3	Soluble	Solid	300.0	25440
890-2297-23	TP12-0-1	Soluble	Solid	300.0	25440
890-2297-24	TP12-1-2	Soluble	Solid	300.0	25440
890-2297-25	TP13-0-1	Soluble	Solid	300.0	25440
890-2297-26	TP13-2-3	Soluble	Solid	300.0	25440
890-2297-27	TP14-0-1	Soluble	Solid	300.0	25440
890-2297-28	TP14-2-3	Soluble	Solid	300.0	25440
890-2297-29	TP15-1-2	Soluble	Solid	300.0	25440
890-2297-30	TP15-2-3	Soluble	Solid	300.0	25440
890-2297-31	TP16-0-1	Soluble	Solid	300.0	25440
890-2297-32	TP16-2-3	Soluble	Solid	300.0	25440
890-2297-33	TP17-0-1	Soluble	Solid	300.0	25440
890-2297-34	TP17-2-3	Soluble	Solid	300.0	25440
890-2297-35	TP18-0-1	Soluble	Solid	300.0	25440
890-2297-36	TP18-1-2	Soluble	Solid	300.0	25440
890-2297-37	TP19-0-1	Soluble	Solid	300.0	25440
890-2297-38	TP19-1-2	Soluble	Solid	300.0	25440
MB 880-25440/1-A	Method Blank	Soluble	Solid	300.0	25440
LCS 880-25440/2-A	Lab Control Sample	Soluble	Solid	300.0	25440
LCSD 880-25440/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25440
890-2297-19 MS	TP10-0-1	Soluble	Solid	300.0	25440
890-2297-19 MSD	TP10-0-1	Soluble	Solid	300.0	25440
890-2297-29 MS	TP15-1-2	Soluble	Solid	300.0	25440
890-2297-29 MSD	TP15-1-2	Soluble	Solid	300.0	25440

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP1-0-1

Date Collected: 05/09/22 10:16
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-1
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			4.97 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 15:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		5			25488	05/14/22 05:42	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 15:49	CH	XEN MID

Client Sample ID: TP1-2-3

Date Collected: 05/09/22 10:20
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-2
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			5.00 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 16:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 22:56	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 15:59	CH	XEN MID

Client Sample ID: TP2-0-1

Date Collected: 05/09/22 11:22
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-3
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			4.96 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 16:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 08:38	SM	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 16:08	CH	XEN MID

Client Sample ID: TP2-1-2

Date Collected: 05/09/22 11:25
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-4
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			4.99 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 17:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP2-1-2
Date Collected: 05/09/22 11:25
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-4
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			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 00:00	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 16:35	CH	XEN MID

Client Sample ID: TP3-0-1
Date Collected: 05/09/22 11:30
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-5
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			5.04 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	25594	05/16/22 17:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		5			25488	05/14/22 06:25	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 16:45	CH	XEN MID

Client Sample ID: TP3-2-3
Date Collected: 05/09/22 11:33
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-6
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			4.99 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 17:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 00:21	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 16:54	CH	XEN MID

Client Sample ID: TP4-0-1
Date Collected: 05/09/22 12:55
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-7
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			4.95 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 18:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 00:42	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP4-0-1

Date Collected: 05/09/22 12:55
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-7

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			5 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/17/22 15:44	CH	XEN MID

Client Sample ID: TP4-1-2

Date Collected: 05/09/22 12:57
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-8

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			5.02 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 18:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 01:03	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 17:12	CH	XEN MID

Client Sample ID: TP5-0-1

Date Collected: 05/09/22 13:00
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 19:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 05:21	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 17:22	CH	XEN MID

Client Sample ID: TP5-2-3

Date Collected: 05/09/22 13:03
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 20:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 01:25	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 17:49	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP6-0-1

Date Collected: 05/09/22 13:28
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 21:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 01:46	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 17:58	CH	XEN MID

Client Sample ID: TP6-2-3

Date Collected: 05/09/22 13:30
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 21:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 02:08	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 18:26	CH	XEN MID

Client Sample ID: TP7-0-1

Date Collected: 05/09/22 13:55
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 22:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		5			25488	05/14/22 06:04	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		5			25556	05/16/22 18:35	CH	XEN MID

Client Sample ID: TP7-2-3

Date Collected: 05/09/22 13:58
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-14

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	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 22:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP7-2-3
Date Collected: 05/09/22 13:58
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 02:29	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 18:45	CH	XEN MID

Client Sample ID: TP8-0-1
Date Collected: 05/09/22 14:36
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-15
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			5.00 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 23:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 02:51	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 18:54	CH	XEN MID

Client Sample ID: TP8-1-2
Date Collected: 05/09/22 14:40
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 23:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 03:34	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 19:03	CH	XEN MID

Client Sample ID: TP9-0-1
Date Collected: 05/09/22 14:43
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-17
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	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/16/22 23:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 03:55	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP9-0-1

Date Collected: 05/09/22 14:43
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-17

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	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 19:12	CH	XEN MID

Client Sample ID: TP9-1-2

Date Collected: 05/09/22 14:45
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-18

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			4.98 g	5 mL	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/17/22 00:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 04:17	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25439	05/12/22 14:56	CH	XEN MID
Soluble	Analysis	300.0		1			25556	05/16/22 19:22	CH	XEN MID

Client Sample ID: TP10-0-1

Date Collected: 05/10/22 09:15
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-19

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	25602	05/16/22 09:29	MR	XEN MID
Total/NA	Analysis	8021B		1			25594	05/17/22 00:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 04:38	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			25557	05/14/22 02:18	CH	XEN MID

Client Sample ID: TP10-2-3

Date Collected: 05/10/22 09:18
Date Received: 05/11/22 11:24

Lab Sample ID: 890-2297-20

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			4.97 g	5 mL	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 02:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25431	05/12/22 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/14/22 05:00	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			25557	05/14/22 02:46	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP11-0-1

Lab Sample ID: 890-2297-21

Date Collected: 05/10/22 09:45
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	25595	05/17/22 06:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		5			25488	05/13/22 14:12	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			25557	05/14/22 02:55	CH	XEN MID

Client Sample ID: TP11-2-3

Lab Sample ID: 890-2297-22

Date Collected: 05/10/22 09:48
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 03:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 16:04	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			25557	05/14/22 03:04	CH	XEN MID

Client Sample ID: TP12-0-1

Lab Sample ID: 890-2297-23

Date Collected: 05/10/22 10:15
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 03:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 13:05	SM	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 03:14	CH	XEN MID

Client Sample ID: TP12-1-2

Lab Sample ID: 890-2297-24

Date Collected: 05/10/22 10:17
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 04:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP12-1-2

Lab Sample ID: 890-2297-24
Matrix: Solid
Date Collected: 05/10/22 10:17
Date Received: 05/11/22 11:24

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			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 16:26	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 03:41	CH	XEN MID

Client Sample ID: TP13-0-1

Lab Sample ID: 890-2297-25
Matrix: Solid
Date Collected: 05/10/22 10:45
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 04:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 15:19	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 03:51	CH	XEN MID

Client Sample ID: TP13-2-3

Lab Sample ID: 890-2297-26
Matrix: Solid
Date Collected: 05/10/22 10:47
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 04:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 16:47	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 04:00	CH	XEN MID

Client Sample ID: TP14-0-1

Lab Sample ID: 890-2297-27
Matrix: Solid
Date Collected: 05/10/22 11:25
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 05:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 14:56	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP14-0-1

Lab Sample ID: 890-2297-27

Date Collected: 05/10/22 11:25
Matrix: Solid
Date Received: 05/11/22 11:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 04:09	CH	XEN MID

Client Sample ID: TP14-2-3

Lab Sample ID: 890-2297-28

Date Collected: 05/10/22 11:28
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 05:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 17:10	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 04:18	CH	XEN MID

Client Sample ID: TP15-1-2

Lab Sample ID: 890-2297-29

Date Collected: 05/10/22 12:30
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 07:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 17:53	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 04:27	CH	XEN MID

Client Sample ID: TP15-2-3

Lab Sample ID: 890-2297-30

Date Collected: 05/10/22 12:32
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 07:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 18:15	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 04:55	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP16-0-1

Lab Sample ID: 890-2297-31

Date Collected: 05/10/22 12:55
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 08:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 15:41	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 05:04	CH	XEN MID

Client Sample ID: TP16-2-3

Lab Sample ID: 890-2297-32

Date Collected: 05/10/22 12:58
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 08:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 18:37	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 05:32	CH	XEN MID

Client Sample ID: TP17-0-1

Lab Sample ID: 890-2297-33

Date Collected: 05/10/22 13:23
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 08:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 14:34	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 05:41	CH	XEN MID

Client Sample ID: TP17-2-3

Lab Sample ID: 890-2297-34

Date Collected: 05/10/22 13:25
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 09:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP17-2-3

Lab Sample ID: 890-2297-34
Matrix: Solid
Date Collected: 05/10/22 13:25
Date Received: 05/11/22 11:24

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			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 18:59	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 05:50	CH	XEN MID

Client Sample ID: TP18-0-1

Lab Sample ID: 890-2297-35
Matrix: Solid
Date Collected: 05/10/22 14:08
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 09:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 19:21	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 05:59	CH	XEN MID

Client Sample ID: TP18-1-2

Lab Sample ID: 890-2297-36
Matrix: Solid
Date Collected: 05/10/22 14:10
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 09:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 19:43	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 06:09	CH	XEN MID

Client Sample ID: TP19-0-1

Lab Sample ID: 890-2297-37
Matrix: Solid
Date Collected: 05/10/22 14:13
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 10:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 20:04	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Client Sample ID: TP19-0-1

Lab Sample ID: 890-2297-37

Date Collected: 05/10/22 14:13
Matrix: Solid
Date Received: 05/11/22 11:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 06:18	CH	XEN MID

Client Sample ID: TP19-1-2

Lab Sample ID: 890-2297-38

Date Collected: 05/10/22 14:15
Matrix: Solid
Date Received: 05/11/22 11:24

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	25603	05/16/22 09:33	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25595	05/17/22 10:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25665	05/16/22 17:06	SM	XEN MID
Total/NA	Analysis	8015 NM		1			25646	05/16/22 15:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25432	05/12/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25488	05/13/22 20:26	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25440	05/12/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			25557	05/14/22 06:27	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

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

Protocol References:

ASTM = ASTM International

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: James E Upper

Job ID: 890-2297-1
SDG: 03d2024016

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2297-1	TP1-0-1	Solid	05/09/22 10:16	05/11/22 11:24	0 - 1
890-2297-2	TP1-2-3	Solid	05/09/22 10:20	05/11/22 11:24	2 - 3
890-2297-3	TP2-0-1	Solid	05/09/22 11:22	05/11/22 11:24	0 - 1
890-2297-4	TP2-1-2	Solid	05/09/22 11:25	05/11/22 11:24	1 - 2
890-2297-5	TP3-0-1	Solid	05/09/22 11:30	05/11/22 11:24	0 - 1
890-2297-6	TP3-2-3	Solid	05/09/22 11:33	05/11/22 11:24	2 - 3
890-2297-7	TP4-0-1	Solid	05/09/22 12:55	05/11/22 11:24	0 - 1
890-2297-8	TP4-1-2	Solid	05/09/22 12:57	05/11/22 11:24	1 - 2
890-2297-9	TP5-0-1	Solid	05/09/22 13:00	05/11/22 11:24	0 - 1
890-2297-10	TP5-2-3	Solid	05/09/22 13:03	05/11/22 11:24	2 - 3
890-2297-11	TP6-0-1	Solid	05/09/22 13:28	05/11/22 11:24	0 - 1
890-2297-12	TP6-2-3	Solid	05/09/22 13:30	05/11/22 11:24	2 - 3
890-2297-13	TP7-0-1	Solid	05/09/22 13:55	05/11/22 11:24	0 - 1
890-2297-14	TP7-2-3	Solid	05/09/22 13:58	05/11/22 11:24	2 - 3
890-2297-15	TP8-0-1	Solid	05/09/22 14:36	05/11/22 11:24	0 - 1
890-2297-16	TP8-1-2	Solid	05/09/22 14:40	05/11/22 11:24	1 - 2
890-2297-17	TP9-0-1	Solid	05/09/22 14:43	05/11/22 11:24	0 - 1
890-2297-18	TP9-1-2	Solid	05/09/22 14:45	05/11/22 11:24	1 - 2
890-2297-19	TP10-0-1	Solid	05/10/22 09:15	05/11/22 11:24	0 - 1
890-2297-20	TP10-2-3	Solid	05/10/22 09:18	05/11/22 11:24	2 - 3
890-2297-21	TP11-0-1	Solid	05/10/22 09:45	05/11/22 11:24	0 - 1
890-2297-22	TP11-2-3	Solid	05/10/22 09:48	05/11/22 11:24	2 - 3
890-2297-23	TP12-0-1	Solid	05/10/22 10:15	05/11/22 11:24	0 - 1
890-2297-24	TP12-1-2	Solid	05/10/22 10:17	05/11/22 11:24	1 - 2
890-2297-25	TP13-0-1	Solid	05/10/22 10:45	05/11/22 11:24	0 - 1
890-2297-26	TP13-2-3	Solid	05/10/22 10:47	05/11/22 11:24	2 - 3
890-2297-27	TP14-0-1	Solid	05/10/22 11:25	05/11/22 11:24	0 - 1
890-2297-28	TP14-2-3	Solid	05/10/22 11:28	05/11/22 11:24	2 - 3
890-2297-29	TP15-1-2	Solid	05/10/22 12:30	05/11/22 11:24	1 - 2
890-2297-30	TP15-2-3	Solid	05/10/22 12:32	05/11/22 11:24	2 - 3
890-2297-31	TP16-0-1	Solid	05/10/22 12:55	05/11/22 11:24	0 - 1
890-2297-32	TP16-2-3	Solid	05/10/22 12:58	05/11/22 11:24	2 - 3
890-2297-33	TP17-0-1	Solid	05/10/22 13:23	05/11/22 11:24	0 - 1
890-2297-34	TP17-2-3	Solid	05/10/22 13:25	05/11/22 11:24	2 - 3
890-2297-35	TP18-0-1	Solid	05/10/22 14:08	05/11/22 11:24	0 - 1
890-2297-36	TP18-1-2	Solid	05/10/22 14:10	05/11/22 11:24	1 - 2
890-2297-37	TP19-0-1	Solid	05/10/22 14:13	05/11/22 11:24	0 - 1
890-2297-38	TP19-1-2	Solid	05/10/22 14:15	05/11/22 11:24	1 - 2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	817-683-2503	Email:	Kjennings@ensolum.com

Work Order Comments

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

Project Name:	James E Upper	Turn Around	
Project Number:	030202 4016	☒ Routine ☐ Rush	
Project Location:	James E Upper	Due Date:	
Sampler's Name:	Reece Hanson	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TPM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.6

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX (8021)	TPH (8015)	Cl (EPA 300.0)	Sample Comments
TP1-0-1	Soil	5/9/22	1016	0-1'	Comp	1,902		X	X	X	
TP1-2-3			1020	2-3'							
TP2-0-X1			1122	0-1'							
TP2-1-2			1125	1-2'							
TP3-0-1			1130	0-1'							
TP3-2-3			1133	2-3'							
TP4-0-1			1255	0-1'							
TP4-1-2			1257	1-2'							
TP5-0-1			1300	0-1'							
TP5-2-3	↓	↓	1303	2-3'	↓	↓		↓	↓	↓	

890-2297 Chain of Custody

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anna Byers	5/11/22 @ 1045	2 Anna Byers		5.11.22 1124
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:		Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:	Kjennings@eas-lum.com	

Work Order Comments

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

Project Name:	James E Upper	Turn Around	
Project Number:		☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.5
Sample Custody Seals:	Yes No N/A	Temperature Reading:	
Total Containers:		Corrected Temperature:	

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX (8021)	TPH (8015)	Cl (EPA 300.0)	Sample Comments
TP6-0-1	soil	5/9/22	1328	0-1'	comp	1,4RH		X	X	X	
TP6-2-3			1330	2-3'							
TP7-0-1			1355	0-1'							
TP7-2-3			1358	2-3'							
TP8-0-1			1436	0-1'							
TP8-1-2			1440	1-2'							
TP9-0-1			1443	0-1'							
TP9-1-2			1445	1-2'							
TP10-0-1		5/10/22	915	0-1'							
TP10-2-3			918	2-3'							

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anna Byers	5/11/22 @ 1040	2 Anna Byers		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 3 of 4

Project Manager:	Kaki Jennings	Bill to: (if different)	
Company Name:		Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:	KJennings@ensolum.com	

Work Order Comments

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

Project Name:	James E Lyon	Turn Around	
Project Number:		☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX (8021)	TPH (8015)	Cl (EPA 300.0)	Sample Comments
TP11-0-1	soil	5/10/22	945	0-1'	comp	1,402		X	X	X	
TP11-2-3			948	2-3'							
TP12-0-1			1015	0-1'							
TP12-1-2			1017	1-2'							
TP13-0-1			1045	0-1'							
TP13-2-3			1047	2-3'							
TP14-0-1			1125	0-1'							
TP14-2-3			1128	2-3'							
TP15-1-2			1230	1-2'							
TP15-2-3			1232	2-3'							

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anna Byers	5/11/22 @ 1045	2 Anna Byers		5.11.22
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kale Jennings	Bill to: (if different)	
Company Name:		Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:		

Work Order Comments

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

Project Name:	James E Year	Turn Around	
Project Number:		☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Pres. Code

Parameters: BTEX (8021) | TPH (8015) | Cl (EPA 300.0)

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX	TPH	Cl	Sample Comments
TP-16-0-1	Soil	5/10/22	1255	0-1'	Comp	1,4oz	X	X	X	
TP-16-2-3			1258	2-3'						
TP-17-0-1			1323	0-1'						
TP-17-2-3			1325	2-3'						
TP-18-0-1			1408	0-1'						
TP-18-1-2			1410	1-2'						
TP-19-0-1			1413	0-1'						
TP-19-1-2			1415	1-2'						

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anna Byers	5/11/22 1040	2 Anna Byers		5.11.22 1124
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2297-1
SDG Number: 03d2024016

Login Number: 2297
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2297-1
SDG Number: 03d2024016

Login Number: 2297
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/12/22 10:47 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1783-1
Laboratory Sample Delivery Group: 31403720.000 task 28.02
Client Project/Site: James E Upper Battery

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
1/7/2022 11:12:32 AM

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

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

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

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Laboratory Job ID: 890-1783-1
SDG: 31403720.000 task 28.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Job ID: 890-1783-1

Laboratory: Eurofins Xenco

Narrative

Job Narrative
890-1783-1

Receipt
The samples were received on 12/30/2021 9:04 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA
Method 8021B: The following samples were diluted due to the nature of the sample matrix: SS01 (890-1783-1), SS02 (890-1783-2), SS03 (890-1783-3), SS04 (890-1783-4), SS05 (890-1783-5), SS06 (890-1783-6) and SS07 (890-1783-7) at 20.0, 20.0, 20.0, 20.0, 20.0, 20.0 and 20.0. Elevated reporting limits (RLs) are provided.

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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15882 and analytical batch 880-15874 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS02 (890-1783-2), SS03 (890-1783-3), SS04 (890-1783-4) and SS05 (890-1783-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS06 (890-1783-6). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS01 Lab Sample ID: 890-1783-1

Date Collected: 12/29/21 12:27 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.135		0.0399		mg/Kg		01/03/22 10:15	01/03/22 21:55	20
Toluene	1.77		0.0399		mg/Kg		01/03/22 10:15	01/03/22 21:55	20
Ethylbenzene	2.48		0.0399		mg/Kg		01/03/22 10:15	01/03/22 21:55	20
m-Xylene & p-Xylene	5.08		0.0798		mg/Kg		01/03/22 10:15	01/03/22 21:55	20
o-Xylene	2.92		0.0399		mg/Kg		01/03/22 10:15	01/03/22 21:55	20
Xylenes, Total	8.00		0.0798		mg/Kg		01/03/22 10:15	01/03/22 21:55	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*01/03/22 10:15*	*01/03/22 21:55*	*20*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/03/22 10:15*	*01/03/22 21:55*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	12.4		0.0798		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	7050		500		mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	774		500		mg/Kg		01/03/22 10:55	01/04/22 02:14	10
Diesel Range Organics (Over C10-C28)	6280		500		mg/Kg		01/03/22 10:55	01/04/22 02:14	10
Oil Range Organics (Over C28-C36)	<500	U	500		mg/Kg		01/03/22 10:55	01/04/22 02:14	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*01/03/22 10:55*	*01/04/22 02:14*	*10*
o-Terphenyl	*128*		*70 - 130*	*01/03/22 10:55*	*01/04/22 02:14*	*10*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7510		25.1		mg/Kg			01/06/22 15:26	5

Client Sample ID: SS02 Lab Sample ID: 890-1783-2

Date Collected: 12/29/21 12:29 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400		mg/Kg		01/03/22 10:15	01/03/22 22:16	20
Toluene	1.14		0.0400		mg/Kg		01/03/22 10:15	01/03/22 22:16	20
Ethylbenzene	1.93		0.0400		mg/Kg		01/03/22 10:15	01/03/22 22:16	20
m-Xylene & p-Xylene	3.56		0.0800		mg/Kg		01/03/22 10:15	01/03/22 22:16	20
o-Xylene	1.77		0.0400		mg/Kg		01/03/22 10:15	01/03/22 22:16	20
Xylenes, Total	5.33		0.0800		mg/Kg		01/03/22 10:15	01/03/22 22:16	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/03/22 10:15*	*01/03/22 22:16*	*20*

Eurofins Xenco

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS02 Lab Sample ID: 890-1783-2

Date Collected: 12/29/21 12:29 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/03/22 10:15*	*01/03/22 22:16*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**8.40**		0.0800	mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**5650**		250	mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**672**		250	mg/Kg		01/03/22 10:55	01/04/22 02:34	5
Diesel Range Organics (Over C10-C28)	**4980**		250	mg/Kg		01/03/22 10:55	01/04/22 02:34	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		01/03/22 10:55	01/04/22 02:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*144*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 02:34*	*5*
o-Terphenyl	*147*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 02:34*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**427**		4.98	mg/Kg			01/04/22 12:03	1

Client Sample ID: SS03 Lab Sample ID: 890-1783-3

Date Collected: 12/29/21 12:30 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0712**		0.0404	mg/Kg		01/03/22 10:15	01/03/22 22:37	20
Toluene	**2.97**		0.0404	mg/Kg		01/03/22 10:15	01/03/22 22:37	20
Ethylbenzene	**4.31**		0.0404	mg/Kg		01/03/22 10:15	01/03/22 22:37	20
m-Xylene & p-Xylene	**8.79**		0.0808	mg/Kg		01/03/22 10:15	01/03/22 22:37	20
o-Xylene	**4.72**		0.0404	mg/Kg		01/03/22 10:15	01/03/22 22:37	20
Xylenes, Total	**13.5**		0.0808	mg/Kg		01/03/22 10:15	01/03/22 22:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*01/03/22 10:15*	*01/03/22 22:37*	*20*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*01/03/22 10:15*	*01/03/22 22:37*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**20.9**		0.0808	mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**8980**		499	mg/Kg			01/05/22 14:19	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS03 Lab Sample ID: 890-1783-3

Date Collected: 12/29/21 12:30 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1390		499		mg/Kg		01/03/22 10:55	01/04/22 02:54	10
Diesel Range Organics (Over C10-C28)	7590		499		mg/Kg		01/03/22 10:55	01/04/22 02:54	10
Oil Range Organics (Over C28-C36)	<499	U	499		mg/Kg		01/03/22 10:55	01/04/22 02:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*158*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 02:54*	*10*
o-Terphenyl	*164*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 02:54*	*10*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2980		25.2		mg/Kg			01/04/22 12:11	5

Client Sample ID: SS04 Lab Sample ID: 890-1783-4

Date Collected: 12/29/21 12:32 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.265		0.0404		mg/Kg		01/03/22 10:15	01/03/22 22:58	20
Toluene	5.67		0.0404		mg/Kg		01/03/22 10:15	01/03/22 22:58	20
Ethylbenzene	4.45		0.0404		mg/Kg		01/03/22 10:15	01/03/22 22:58	20
m-Xylene & p-Xylene	8.23		0.0808		mg/Kg		01/03/22 10:15	01/03/22 22:58	20
o-Xylene	3.79		0.0404		mg/Kg		01/03/22 10:15	01/03/22 22:58	20
Xylenes, Total	12.0		0.0808		mg/Kg		01/03/22 10:15	01/03/22 22:58	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/03/22 10:15*	*01/03/22 22:58*	*20*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*01/03/22 10:15*	*01/03/22 22:58*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	22.4		0.0808		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	10500		499		mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1930		499		mg/Kg		01/03/22 10:55	01/04/22 03:14	10
Diesel Range Organics (Over C10-C28)	8560		499		mg/Kg		01/03/22 10:55	01/04/22 03:14	10
Oil Range Organics (Over C28-C36)	<499	U	499		mg/Kg		01/03/22 10:55	01/04/22 03:14	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 03:14*	*10*
o-Terphenyl	*155*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 03:14*	*10*

Client Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1783-1
SDG: 31403720.000 task 28.02

Client Sample ID: SS04

Lab Sample ID: 890-1783-4
Matrix: Solid
Date Collected: 12/29/21 12:32
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	993		4.98		mg/Kg			01/04/22 12:19	1

Client Sample ID: SS05

Lab Sample ID: 890-1783-5
Matrix: Solid
Date Collected: 12/29/21 12:36
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.342		0.0401		mg/Kg		01/03/22 10:15	01/03/22 23:19	20
Toluene	7.03		0.0401		mg/Kg		01/03/22 10:15	01/03/22 23:19	20
Ethylbenzene	6.50		0.0401		mg/Kg		01/03/22 10:15	01/03/22 23:19	20
m-Xylene & p-Xylene	12.3		0.0802		mg/Kg		01/03/22 10:15	01/03/22 23:19	20
o-Xylene	5.74		0.0401		mg/Kg		01/03/22 10:15	01/03/22 23:19	20
Xylenes, Total	18.0		0.0802		mg/Kg		01/03/22 10:15	01/03/22 23:19	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*01/03/22 10:15*	*01/03/22 23:19*	*20*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*01/03/22 10:15*	*01/03/22 23:19*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	31.9		0.0802		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	12100		500		mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1820		500		mg/Kg		01/03/22 10:55	01/04/22 03:34	10
Diesel Range Organics (Over C10-C28)	10300		500		mg/Kg		01/03/22 10:55	01/04/22 03:34	10
Oil Range Organics (Over C28-C36)	<500	U	500		mg/Kg		01/03/22 10:55	01/04/22 03:34	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*155*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 03:34*	*10*
o-Terphenyl	*153*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 03:34*	*10*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	866		4.95		mg/Kg			01/04/22 12:27	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS06 Lab Sample ID: 890-1783-6

Date Collected: 12/29/21 12:40 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0398	U	0.0398		mg/Kg		01/03/22 10:15	01/03/22 23:40	20
Toluene	**0.273**		0.0398		mg/Kg		01/03/22 10:15	01/03/22 23:40	20
Ethylbenzene	**0.320**		0.0398		mg/Kg		01/03/22 10:15	01/03/22 23:40	20
m-Xylene & p-Xylene	**0.650**		0.0795		mg/Kg		01/03/22 10:15	01/03/22 23:40	20
o-Xylene	**0.284**		0.0398		mg/Kg		01/03/22 10:15	01/03/22 23:40	20
Xylenes, Total	**0.934**		0.0795		mg/Kg		01/03/22 10:15	01/03/22 23:40	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/03/22 10:15*	*01/03/22 23:40*	*20*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*01/03/22 10:15*	*01/03/22 23:40*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.53**		0.0795		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**97.6**		50.0		mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/04/22 03:54	1
Diesel Range Organics (Over C10-C28)	**97.6**		50.0		mg/Kg		01/03/22 10:55	01/04/22 03:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/04/22 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 03:54*	*1*
o-Terphenyl	*135*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 03:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11000**		49.5		mg/Kg			01/04/22 12:35	10

Client Sample ID: SS07 Lab Sample ID: 890-1783-7

Date Collected: 12/29/21 12:42 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0402	U	0.0402		mg/Kg		01/03/22 10:15	01/04/22 00:01	20
Toluene	**0.0783**		0.0402		mg/Kg		01/03/22 10:15	01/04/22 00:01	20
Ethylbenzene	**0.124**		0.0402		mg/Kg		01/03/22 10:15	01/04/22 00:01	20
m-Xylene & p-Xylene	**0.0974**		0.0803		mg/Kg		01/03/22 10:15	01/04/22 00:01	20
o-Xylene	**0.0985**		0.0402		mg/Kg		01/03/22 10:15	01/04/22 00:01	20
Xylenes, Total	**0.196**		0.0803		mg/Kg		01/03/22 10:15	01/04/22 00:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/03/22 10:15*	*01/04/22 00:01*	*20*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS07 **Lab Sample ID: 890-1783-7**
Date Collected: 12/29/21 12:42 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/03/22 10:15*	*01/04/22 00:01*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.398**		0.0803	mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**594**		50.0	mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/03/22 10:55	01/04/22 07:25	1
Diesel Range Organics (Over C10-C28)	**594**		50.0	mg/Kg		01/03/22 10:55	01/04/22 07:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/03/22 10:55	01/04/22 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 07:25*	*1*
o-Terphenyl	*127*		*70 - 130*	*01/03/22 10:55*	*01/04/22 07:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.7**		4.97	mg/Kg			01/04/22 12:42	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1783-1
SDG: 31403720.000 task 28.02

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)
880-9761-A-1-F MS	Matrix Spike	105	103
880-9761-A-1-G MSD	Matrix Spike Duplicate	115	112
890-1783-1	SS01	96	75
890-1783-2	SS02	100	75
890-1783-3	SS03	95	80
890-1783-4	SS04	100	77
890-1783-5	SS05	118	77
890-1783-6	SS06	86	81
890-1783-7	SS07	109	92
LCS 880-15880/1-A	Lab Control Sample	110	104
LCSD 880-15880/2-A	Lab Control Sample Dup	104	99
MB 880-15880/5-A	Method Blank	118	104

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1780-A-1-D MS	Matrix Spike	118	113
890-1780-A-1-E MSD	Matrix Spike Duplicate	119	117
890-1783-1	SS01	119	128
890-1783-2	SS02	144 S1+	147 S1+
890-1783-3	SS03	158 S1+	164 S1+
890-1783-4	SS04	137 S1+	155 S1+
890-1783-5	SS05	155 S1+	153 S1+
890-1783-6	SS06	136 S1+	135 S1+
890-1783-7	SS07	134 S1+	127
LCS 880-15882/2-A	Lab Control Sample	101	84
LCSD 880-15882/3-A	Lab Control Sample Dup	105	87
MB 880-15882/1-A	Method Blank	112	126

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1783-1
SDG: 31403720.000 task 28.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15880/5-A
Matrix: Solid
Analysis Batch: 15550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15880

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/03/22 10:15	01/03/22 16:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/03/22 10:15	01/03/22 16:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/03/22 10:15	01/03/22 16:07	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/03/22 10:15	01/03/22 16:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/03/22 10:15	01/03/22 16:07	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/03/22 10:15	01/03/22 16:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*01/03/22 10:15*	*01/03/22 16:07*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/03/22 10:15*	*01/03/22 16:07*	*1*

Lab Sample ID: LCS 880-15880/1-A
Matrix: Solid
Analysis Batch: 15550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15880

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07590		mg/Kg		76	70 - 130		
Toluene			0.100	0.08444		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08959		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1803		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.08893		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-15880/2-A
Matrix: Solid
Analysis Batch: 15550

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15880

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07867		mg/Kg		79	70 - 130	4	35
Toluene			0.100	0.07724		mg/Kg		77	70 - 130	9	35
Ethylbenzene			0.100	0.08677		mg/Kg		87	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1679		mg/Kg		84	70 - 130	7	35
o-Xylene			0.100	0.08165		mg/Kg		82	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-9761-A-1-F MS
Matrix: Solid
Analysis Batch: 15550

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15880

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.0990	0.06999		mg/Kg		71	70 - 130		
Toluene	<0.00200	U	0.0990	0.07015		mg/Kg		71	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

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

Lab Sample ID: 880-9761-A-1-F MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15550 **Prep Batch: 15880**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0990	0.07018		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00400	U F1	0.198	0.1314	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00200	U	0.0990	0.06933		mg/Kg		70	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-9761-A-1-G MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15550 **Prep Batch: 15880**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07134		mg/Kg		71	70 - 130	2	35
Toluene	<0.00200	U	0.100	0.07064		mg/Kg		71	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.100	0.07258		mg/Kg		73	70 - 130	3	35
m-Xylene & p-Xylene	<0.00400	U F1	0.200	0.1504		mg/Kg		75	70 - 130	13	35
o-Xylene	<0.00200	U	0.100	0.07389		mg/Kg		74	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

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

Lab Sample ID: MB 880-15882/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/03/22 20:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/03/22 20:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/03/22 20:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*01/03/22 10:55*	*01/03/22 20:25*	*1*
o-Terphenyl	*126*		*70 - 130*	*01/03/22 10:55*	*01/03/22 20:25*	*1*

Lab Sample ID: LCS 880-15882/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	861.5		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1101		mg/Kg		110	70 - 130

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

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

Lab Sample ID: LCS 880-15882/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: LCSD 880-15882/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	940.4		mg/Kg		94	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1162		mg/Kg		116	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 890-1780-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

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 F1	996	515.1	F1	mg/Kg		50	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	491.8	F1	mg/Kg		49	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-1780-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

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 F1	999	522.7	F1	mg/Kg		51	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	512.8	F1	mg/Kg		51	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	117		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1783-1
SDG: 31403720.000 task 28.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15878/1-A
Matrix: Solid
Analysis Batch: 15923

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/04/22 08:47	1

Lab Sample ID: LCS 880-15878/2-A
Matrix: Solid
Analysis Batch: 15923

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.7		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-15878/3-A
Matrix: Solid
Analysis Batch: 15923

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	246.2		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-1779-A-1-B MS
Matrix: Solid
Analysis Batch: 15923

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1110		250	1297	4	mg/Kg		74	90 - 110		

Lab Sample ID: 890-1779-A-1-C MSD
Matrix: Solid
Analysis Batch: 15923

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1110		250	1287	4	mg/Kg		70	90 - 110	1	20

Lab Sample ID: 890-1782-A-4-B MS
Matrix: Solid
Analysis Batch: 15923

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	24100	F1	12500	34400	F1	mg/Kg		82	90 - 110		

Lab Sample ID: 890-1782-A-4-C MSD
Matrix: Solid
Analysis Batch: 15923

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	24100	F1	12500	35910		mg/Kg		94	90 - 110	4	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

GC VOA

Analysis Batch: 15550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Total/NA	Solid	8021B	15880
890-1783-2	SS02	Total/NA	Solid	8021B	15880
890-1783-3	SS03	Total/NA	Solid	8021B	15880
890-1783-4	SS04	Total/NA	Solid	8021B	15880
890-1783-5	SS05	Total/NA	Solid	8021B	15880
890-1783-6	SS06	Total/NA	Solid	8021B	15880
890-1783-7	SS07	Total/NA	Solid	8021B	15880
MB 880-15880/5-A	Method Blank	Total/NA	Solid	8021B	15880
LCS 880-15880/1-A	Lab Control Sample	Total/NA	Solid	8021B	15880
LCSD 880-15880/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15880
880-9761-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	15880
880-9761-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15880

Prep Batch: 15880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Total/NA	Solid	5035	
890-1783-2	SS02	Total/NA	Solid	5035	
890-1783-3	SS03	Total/NA	Solid	5035	
890-1783-4	SS04	Total/NA	Solid	5035	
890-1783-5	SS05	Total/NA	Solid	5035	
890-1783-6	SS06	Total/NA	Solid	5035	
890-1783-7	SS07	Total/NA	Solid	5035	
MB 880-15880/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15880/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15880/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9761-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
880-9761-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 16096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Total/NA	Solid	Total BTEX	
890-1783-2	SS02	Total/NA	Solid	Total BTEX	
890-1783-3	SS03	Total/NA	Solid	Total BTEX	
890-1783-4	SS04	Total/NA	Solid	Total BTEX	
890-1783-5	SS05	Total/NA	Solid	Total BTEX	
890-1783-6	SS06	Total/NA	Solid	Total BTEX	
890-1783-7	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 15874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Total/NA	Solid	8015B NM	15882
890-1783-2	SS02	Total/NA	Solid	8015B NM	15882
890-1783-3	SS03	Total/NA	Solid	8015B NM	15882
890-1783-4	SS04	Total/NA	Solid	8015B NM	15882
890-1783-5	SS05	Total/NA	Solid	8015B NM	15882
890-1783-6	SS06	Total/NA	Solid	8015B NM	15882
890-1783-7	SS07	Total/NA	Solid	8015B NM	15882
MB 880-15882/1-A	Method Blank	Total/NA	Solid	8015B NM	15882
LCS 880-15882/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15882

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

GC Semi VOA (Continued)

Analysis Batch: 15874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-15882/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15882
890-1780-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	15882
890-1780-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15882

Prep Batch: 15882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Total/NA	Solid	8015NM Prep	
890-1783-2	SS02	Total/NA	Solid	8015NM Prep	
890-1783-3	SS03	Total/NA	Solid	8015NM Prep	
890-1783-4	SS04	Total/NA	Solid	8015NM Prep	
890-1783-5	SS05	Total/NA	Solid	8015NM Prep	
890-1783-6	SS06	Total/NA	Solid	8015NM Prep	
890-1783-7	SS07	Total/NA	Solid	8015NM Prep	
MB 880-15882/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15882/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15882/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1780-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1780-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 16097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Total/NA	Solid	8015 NM	
890-1783-2	SS02	Total/NA	Solid	8015 NM	
890-1783-3	SS03	Total/NA	Solid	8015 NM	
890-1783-4	SS04	Total/NA	Solid	8015 NM	
890-1783-5	SS05	Total/NA	Solid	8015 NM	
890-1783-6	SS06	Total/NA	Solid	8015 NM	
890-1783-7	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Soluble	Solid	DI Leach	
890-1783-2	SS02	Soluble	Solid	DI Leach	
890-1783-3	SS03	Soluble	Solid	DI Leach	
890-1783-4	SS04	Soluble	Solid	DI Leach	
890-1783-5	SS05	Soluble	Solid	DI Leach	
890-1783-6	SS06	Soluble	Solid	DI Leach	
890-1783-7	SS07	Soluble	Solid	DI Leach	
MB 880-15878/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15878/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15878/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1779-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1779-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-1782-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1782-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 15923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-1	SS01	Soluble	Solid	300.0	15878

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

HPLC/IC (Continued)

Analysis Batch: 15923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1783-2	SS02	Soluble	Solid	300.0	15878
890-1783-3	SS03	Soluble	Solid	300.0	15878
890-1783-4	SS04	Soluble	Solid	300.0	15878
890-1783-5	SS05	Soluble	Solid	300.0	15878
890-1783-6	SS06	Soluble	Solid	300.0	15878
890-1783-7	SS07	Soluble	Solid	300.0	15878
MB 880-15878/1-A	Method Blank	Soluble	Solid	300.0	15878
LCS 880-15878/2-A	Lab Control Sample	Soluble	Solid	300.0	15878
LCSD 880-15878/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15878
890-1779-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	15878
890-1779-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15878
890-1782-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	15878
890-1782-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15878

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS01 — Lab Sample ID: 890-1783-1

Date Collected: 12/29/21 12:27 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/03/22 21:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		10			15874	01/04/22 02:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		5			15923	01/06/22 15:26	CH	XEN MID

Client Sample ID: SS02 — Lab Sample ID: 890-1783-2

Date Collected: 12/29/21 12:29 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/03/22 22:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		5			15874	01/04/22 02:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		1			15923	01/04/22 12:03	CH	XEN MID

Client Sample ID: SS03 — Lab Sample ID: 890-1783-3

Date Collected: 12/29/21 12:30 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/03/22 22:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		10			15874	01/04/22 02:54	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		5			15923	01/04/22 12:11	CH	XEN MID

Client Sample ID: SS04 — Lab Sample ID: 890-1783-4

Date Collected: 12/29/21 12:32 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/03/22 22:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID

Eurofins Xenco

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS04 Lab Sample ID: 890-1783-4

Date Collected: 12/29/21 12:32 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		10			15874	01/04/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		1			15923	01/04/22 12:19	CH	XEN MID

Client Sample ID: SS05 Lab Sample ID: 890-1783-5

Date Collected: 12/29/21 12:36 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/03/22 23:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		10			15874	01/04/22 03:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		1			15923	01/04/22 12:27	CH	XEN MID

Client Sample ID: SS06 Lab Sample ID: 890-1783-6

Date Collected: 12/29/21 12:40 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/03/22 23:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15874	01/04/22 03:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		10			15923	01/04/22 12:35	CH	XEN MID

Client Sample ID: SS07 Lab Sample ID: 890-1783-7

Date Collected: 12/29/21 12:42 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	15880	01/03/22 10:15	KL	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	15550	01/04/22 00:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15874	01/04/22 07:25	AJ	XEN MID

Eurofins Xenco

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS07 **Lab Sample ID: 890-1783-7**
Date Collected: 12/29/21 12:42 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	15878	01/03/22 10:05	CH	XEN MID
Soluble	Analysis	300.0		1			15923	01/04/22 12:42	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Laboratory: Eurofins Xenco

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1783-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

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

Protocol References:

ASTM = ASTM International

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1783-1
SDG: 31403720.000 task 28.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1783-1	SS01	Solid	12/29/21 12:27	12/30/21 09:04	0.25
890-1783-2	SS02	Solid	12/29/21 12:29	12/30/21 09:04	0.25
890-1783-3	SS03	Solid	12/29/21 12:30	12/30/21 09:04	0.25
890-1783-4	SS04	Solid	12/29/21 12:32	12/30/21 09:04	0.25
890-1783-5	SS05	Solid	12/29/21 12:36	12/30/21 09:04	0.25
890-1783-6	SS06	Solid	12/29/21 12:40	12/30/21 09:04	0.25
890-1783-7	SS07	Solid	12/29/21 12:42	12/30/21 09:04	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street Building 1, unit 222	Address:	3300 North A Street Building 1, unit 222
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Midland, Texas 79705
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	James E Upper Battery	Turn Around	
Project Number:	31403720.000 Task 28.02	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.0/2.8	Thermometer ID	TM007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	12/29/21	12;27	0.25	1	X	X	X
SS02	S	12/29/21	12:29	0.25	1	X	X	X
SS03	S	12/29/21	12:30	0.25	1	X	X	X
SS04	S	12/29/21	12:32	0.25	1	X	X	X
SS05	S	12/29/21	12:36	0.25	1	X	X	X
SS06	S	12/29/21	12:40	0.25	1	X	X	X
SS07	S	12/29/21	12:42	0.25	1	X	X	X

890-1783 Chain of Custody

Work Order Notes

~~API: 30-015-45854~~
~~AFE: DD.2017.00804.GAP.CM~~

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

DISCRETE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	P Benner	Dan Cuy	12.30.21 0904			
3				4		
5				6		

Revised Date 051418 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1783-1
SDG Number: 31403720.000 task 28.02

Login Number: 1783
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1783-1
SDG Number: 31403720.000 task 28.02

Login Number: 1783
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Xenco
List Creation: 01/03/22 08:30 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1784-1
Laboratory Sample Delivery Group: 31403720.000 task 28.02
Client Project/Site: James E Upper Battery

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
1/5/2022 1:33:35 PM

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

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

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

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Laboratory Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
¤	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: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Job ID: 890-1784-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1784-1

Receipt
The samples were received on 12/30/2021 9:04 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15882 and analytical batch 880-15874 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS09 (890-1784-2). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

Client Sample ID: SS08

Lab Sample ID: 890-1784-1
Matrix: Solid
Date Collected: 12/29/21 12:44
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00857	F1	0.00202		mg/Kg		01/03/22 16:00	01/04/22 11:22	1
Toluene	0.0327	F1	0.00202		mg/Kg		01/03/22 16:00	01/04/22 11:22	1
Ethylbenzene	0.00531		0.00202		mg/Kg		01/03/22 16:00	01/04/22 11:22	1
m-Xylene & p-Xylene	0.00905		0.00404		mg/Kg		01/03/22 16:00	01/04/22 11:22	1
o-Xylene	0.00330		0.00202		mg/Kg		01/03/22 16:00	01/04/22 11:22	1
Xylenes, Total	0.0124		0.00404		mg/Kg		01/03/22 16:00	01/04/22 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/03/22 16:00*	*01/04/22 11:22*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/03/22 16:00*	*01/04/22 11:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0589		0.00404		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	55.8		49.9		mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/03/22 10:55	01/04/22 00:53	1
Diesel Range Organics (Over C10-C28)	55.8		49.9		mg/Kg		01/03/22 10:55	01/04/22 00:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 10:55	01/04/22 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*01/03/22 10:55*	*01/04/22 00:53*	*1*
o-Terphenyl	*121*		*70 - 130*	*01/03/22 10:55*	*01/04/22 00:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.66		4.95		mg/Kg			01/04/22 19:59	1

Client Sample ID: SS09

Lab Sample ID: 890-1784-2
Matrix: Solid
Date Collected: 12/29/21 12:46
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00497		0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:43	1
Toluene	0.0220		0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:43	1
Ethylbenzene	0.00441		0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:43	1
m-Xylene & p-Xylene	0.00753		0.00401		mg/Kg		01/03/22 16:00	01/04/22 11:43	1
o-Xylene	0.00353		0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:43	1
Xylenes, Total	0.0111		0.00401		mg/Kg		01/03/22 16:00	01/04/22 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/03/22 16:00*	*01/04/22 11:43*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS09 — Lab Sample ID: 890-1784-2

Date Collected: 12/29/21 12:46 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/03/22 16:00*	*01/04/22 11:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0424**		0.00401		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/05/22 14:19	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/04/22 01:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/04/22 01:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/04/22 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*01/03/22 10:55*	*01/04/22 01:54*	*1*
o-Terphenyl	*129*		*70 - 130*	*01/03/22 10:55*	*01/04/22 01:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.1**		4.95		mg/Kg			01/04/22 20:07	1

Client Sample ID: SS10 — Lab Sample ID: 890-1784-3

Date Collected: 12/29/21 12:48 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0169**		0.00198		mg/Kg		01/03/22 16:00	01/04/22 12:03	1
Toluene	**0.0461**		0.00198		mg/Kg		01/03/22 16:00	01/04/22 12:03	1
Ethylbenzene	**0.00669**		0.00198		mg/Kg		01/03/22 16:00	01/04/22 12:03	1
m-Xylene & p-Xylene	**0.0105**		0.00397		mg/Kg		01/03/22 16:00	01/04/22 12:03	1
o-Xylene	**0.00335**		0.00198		mg/Kg		01/03/22 16:00	01/04/22 12:03	1
Xylenes, Total	**0.0139**		0.00397		mg/Kg		01/03/22 16:00	01/04/22 12:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/03/22 16:00*	*01/04/22 12:03*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/03/22 16:00*	*01/04/22 12:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0835**		0.00397		mg/Kg			01/05/22 13:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/05/22 14:19	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS10 Lab Sample ID: 890-1784-3

Date Collected: 12/29/21 12:48 **Matrix: Solid**
Date Received: 12/30/21 09:04
Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/03/22 10:55	01/04/22 01:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/03/22 10:55	01/04/22 01:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 10:55	01/04/22 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*01/03/22 10:55*	*01/04/22 01:13*	*1*
o-Terphenyl	*128*		*70 - 130*	*01/03/22 10:55*	*01/04/22 01:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.0**		5.00		mg/Kg			01/04/22 20:15	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1784-1	SS08	98	116
890-1784-1 MS	SS08	122	122
890-1784-1 MSD	SS08	111	99
890-1784-2	SS09	101	104
890-1784-3	SS10	98	108
LCS 880-15927/1-A	Lab Control Sample	129	127
LCSD 880-15927/2-A	Lab Control Sample Dup	121	86
MB 880-15927/5-A	Method Blank	98	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1780-A-1-D MS	Matrix Spike	118	113
890-1780-A-1-E MSD	Matrix Spike Duplicate	119	117
890-1784-1	SS08	128	121
890-1784-2	SS09	132 S1+	129
890-1784-3	SS10	129	128
LCS 880-15882/2-A	Lab Control Sample	101	84
LCSD 880-15882/3-A	Lab Control Sample Dup	105	87
MB 880-15882/1-A	Method Blank	112	126

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15927/5-A
Matrix: Solid
Analysis Batch: 15941

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15927

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/03/22 16:00	01/04/22 11:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 16:00	01/04/22 11:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/03/22 16:00	01/04/22 11:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/03/22 16:00*	*01/04/22 11:01*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/03/22 16:00*	*01/04/22 11:01*	*1*

Lab Sample ID: LCS 880-15927/1-A
Matrix: Solid
Analysis Batch: 15941

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15927

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08248		mg/Kg		82	70 - 130		
Toluene			0.100	0.08100		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.08558		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1666		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08934		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*

Lab Sample ID: LCSD 880-15927/2-A
Matrix: Solid
Analysis Batch: 15941

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15927

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07244		mg/Kg		72	70 - 130	13	35
Toluene			0.100	0.07742		mg/Kg		77	70 - 130	5	35
Ethylbenzene			0.100	0.08428		mg/Kg		84	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1776		mg/Kg		89	70 - 130	6	35
o-Xylene			0.100	0.08900		mg/Kg		89	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 890-1784-1 MS
Matrix: Solid
Analysis Batch: 15941

Client Sample ID: SS08
Prep Type: Total/NA
Prep Batch: 15927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.00857	F1	0.100	0.07782	F1	mg/Kg		69	70 - 130		
Toluene	0.0327	F1	0.100	0.07480	F1	mg/Kg		42	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

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

Lab Sample ID: 890-1784-1 MS
Matrix: Solid
Analysis Batch: 15941

Client Sample ID: SS08
Prep Type: Total/NA
Prep Batch: 15927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.00531		0.100	0.08134		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	0.00905		0.201	0.1662		mg/Kg		78	70 - 130
o-Xylene	0.00330		0.100	0.08427		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*

Lab Sample ID: 890-1784-1 MSD
Matrix: Solid
Analysis Batch: 15941

Client Sample ID: SS08
Prep Type: Total/NA
Prep Batch: 15927

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00857	F1	0.0998	0.07286	F1	mg/Kg		64	70 - 130	7	35
Toluene	0.0327	F1	0.0998	0.07303	F1	mg/Kg		40	70 - 130	2	35
Ethylbenzene	0.00531		0.0998	0.07956		mg/Kg		74	70 - 130	2	35
m-Xylene & p-Xylene	0.00905		0.200	0.1649		mg/Kg		78	70 - 130	1	35
o-Xylene	0.00330		0.0998	0.08450		mg/Kg		81	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-15882/1-A
Matrix: Solid
Analysis Batch: 15874

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15882

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/03/22 20:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/03/22 20:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 10:55	01/03/22 20:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*01/03/22 10:55*	*01/03/22 20:25*	*1*
o-Terphenyl	*126*		*70 - 130*	*01/03/22 10:55*	*01/03/22 20:25*	*1*

Lab Sample ID: LCS 880-15882/2-A
Matrix: Solid
Analysis Batch: 15874

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15882

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	861.5		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1101		mg/Kg		110	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

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

Lab Sample ID: LCS 880-15882/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: LCSD 880-15882/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	940.4		mg/Kg		94	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1162		mg/Kg		116	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 890-1780-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

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 F1	996	515.1	F1	mg/Kg		50	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	491.8	F1	mg/Kg		49	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-1780-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15874 **Prep Batch: 15882**

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 F1	999	522.7	F1	mg/Kg		51	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	512.8	F1	mg/Kg		51	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	117		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15879/1-A
Matrix: Solid
Analysis Batch: 15967

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/04/22 16:19	1

Lab Sample ID: LCS 880-15879/2-A
Matrix: Solid
Analysis Batch: 15967

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	248.0		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-15879/3-A
Matrix: Solid
Analysis Batch: 15967

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	248.4		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-9768-A-2-B MS
Matrix: Solid
Analysis Batch: 15967

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	58.0		250	318.9		mg/Kg		104	90 - 110		

Lab Sample ID: 880-9768-A-2-C MSD
Matrix: Solid
Analysis Batch: 15967

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	58.0		250	309.1		mg/Kg		100	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

GC VOA

Prep Batch: 15927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Total/NA	Solid	5035	
890-1784-2	SS09	Total/NA	Solid	5035	
890-1784-3	SS10	Total/NA	Solid	5035	
MB 880-15927/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15927/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15927/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1784-1 MS	SS08	Total/NA	Solid	5035	
890-1784-1 MSD	SS08	Total/NA	Solid	5035	

Analysis Batch: 15941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Total/NA	Solid	8021B	15927
890-1784-2	SS09	Total/NA	Solid	8021B	15927
890-1784-3	SS10	Total/NA	Solid	8021B	15927
MB 880-15927/5-A	Method Blank	Total/NA	Solid	8021B	15927
LCS 880-15927/1-A	Lab Control Sample	Total/NA	Solid	8021B	15927
LCSD 880-15927/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15927
890-1784-1 MS	SS08	Total/NA	Solid	8021B	15927
890-1784-1 MSD	SS08	Total/NA	Solid	8021B	15927

Analysis Batch: 16096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Total/NA	Solid	Total BTEX	
890-1784-2	SS09	Total/NA	Solid	Total BTEX	
890-1784-3	SS10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 15874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Total/NA	Solid	8015B NM	15882
890-1784-2	SS09	Total/NA	Solid	8015B NM	15882
890-1784-3	SS10	Total/NA	Solid	8015B NM	15882
MB 880-15882/1-A	Method Blank	Total/NA	Solid	8015B NM	15882
LCS 880-15882/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15882
LCSD 880-15882/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15882
890-1780-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	15882
890-1780-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15882

Prep Batch: 15882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Total/NA	Solid	8015NM Prep	
890-1784-2	SS09	Total/NA	Solid	8015NM Prep	
890-1784-3	SS10	Total/NA	Solid	8015NM Prep	
MB 880-15882/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15882/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15882/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1780-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1780-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

GC Semi VOA

Analysis Batch: 16097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Total/NA	Solid	8015 NM	
890-1784-2	SS09	Total/NA	Solid	8015 NM	
890-1784-3	SS10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Soluble	Solid	DI Leach	
890-1784-2	SS09	Soluble	Solid	DI Leach	
890-1784-3	SS10	Soluble	Solid	DI Leach	
MB 880-15879/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15879/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15879/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9768-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-9768-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 15967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1784-1	SS08	Soluble	Solid	300.0	15879
890-1784-2	SS09	Soluble	Solid	300.0	15879
890-1784-3	SS10	Soluble	Solid	300.0	15879
MB 880-15879/1-A	Method Blank	Soluble	Solid	300.0	15879
LCS 880-15879/2-A	Lab Control Sample	Soluble	Solid	300.0	15879
LCSD 880-15879/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15879
880-9768-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	15879
880-9768-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15879

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Client Sample ID: SS08 Lab Sample ID: 890-1784-1

Date Collected: 12/29/21 12:44 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	15927	01/03/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15941	01/04/22 11:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15874	01/04/22 00:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15879	01/03/22 10:06	CH	XEN MID
Soluble	Analysis	300.0		1			15967	01/04/22 19:59	CH	XEN MID

Client Sample ID: SS09 Lab Sample ID: 890-1784-2

Date Collected: 12/29/21 12:46 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15927	01/03/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15941	01/04/22 11:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15874	01/04/22 01:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15879	01/03/22 10:06	CH	XEN MID
Soluble	Analysis	300.0		1			15967	01/04/22 20:07	CH	XEN MID

Client Sample ID: SS10 Lab Sample ID: 890-1784-3

Date Collected: 12/29/21 12:48 **Matrix: Solid**
Date Received: 12/30/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	15927	01/03/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15941	01/04/22 12:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16096	01/05/22 13:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16097	01/05/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15882	01/03/22 10:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15874	01/04/22 01:13	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	15879	01/03/22 10:06	CH	XEN MID
Soluble	Analysis	300.0		1			15967	01/04/22 20:15	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1784-1
Project/Site: James E Upper Battery SDG: 31403720.000 task 28.02

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

Protocol References:

ASTM = ASTM International

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: James E Upper Battery

Job ID: 890-1784-1
SDG: 31403720.000 task 28.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1784-1	SS08	Solid	12/29/21 12:44	12/30/21 09:04	0.25
890-1784-2	SS09	Solid	12/29/21 12:46	12/30/21 09:04	0.25
890-1784-3	SS10	Solid	12/29/21 12:48	12/30/21 09:04	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street Building 1, unit 222	Address:	3300 North A Street Building 1, unit 222
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Midland, Texas 79705
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ TX/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	James E Upper Battery	Turn Around	
Project Number:	31403720.000 Task 28.02	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.0/2.8	Thermometer ID	TPM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS08	S	12/29/21	12:44	0.25	1	X	X	X	DISCRETE
SS09	S	12/29/21	12:46	0.25	1	X	X	X	DISCRETE
SS10	S	12/29/21	12:48	0.25	1	X	X	X	DISCRETE

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	PBenner	Clue Cuyo	12.30.21 0904			
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1784-1
SDG Number: 31403720.000 task 28.02

Login Number: 1784
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1784-1
SDG Number: 31403720.000 task 28.02

Login Number: 1784
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Xenco, Midland
List Creation: 01/03/22 08:29 AM

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

ENSOLUM

APPENDIX E

Final C-141

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	NAPP2129846676
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips	OGRID	
Contact Name	Kelsy Waggaman	Contact Telephone	432-88-9057
Contact email	Kelsy.Waggaman@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2129846676
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.408333 Longitude -103.840278
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	James E Upper	Site Type	Tank Battery
Date Release Discovered	October 12, 2021	API# *(if applicable)*	30-015-26645

Unit Letter	Section	Township	Range	County
E	12	22S	30E	Lea

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) 2.2	Volume Recovered (bbls) 0
■ Produced Water	Volume Released (bbls) 15.8	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	■ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a water dump valve malfunction.
The release was on the pad and flowed into the pasture. A vacuum truck was dispatched to remove all freestanding fluids.
Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2129846676
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

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

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 10/25/2021

email: Brittany.Esparza@ConocoPhillips.com Telephone: (432) 221-0398

OCD Only

Received by: Ramona Marcus Date: 11/1/2021

L48 Spill Volume Estimate Form

Facility Name & Number:	James E Upper Battery NAPP2129846676
Asset Area:	Cabin Lake Area
Release Discovery Date & Time:	10/12/21 8:45am
Release Type:	Oil Mixture
Provide any known details about the event:	PSV Spill

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	200.0	60.0	0.25	15.16%	44.500	6.746	12.00%	0.810	5.937
Rectangle B	45.0	30.0	1.00	10.50%	20.025	2.103	12.00%	0.252	1.850
Rectangle C	27.0	27.0	2.00	15.16%	21.627	3.279	12.00%	0.393	2.885
Rectangle D	21.0	24.0	2.00	15.16%	14.952	2.267	12.00%	0.272	1.995
Rectangle E	24.0	9.0	2.00	15.16%	6.408	0.971	12.00%	0.117	0.855
Rectangle F	36.0	12.0	2.00	15.16%	12.816	1.943	12.00%	0.233	1.710
Rectangle G	21.0	21.0	1.00	10.50%	6.542	0.687	12.00%	0.082	0.604
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Rectangle J					0.000	0.000		0.000	0.000
					Total Volume Release:	17.995		2.159	15.836

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

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 57709
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	11/1/2021

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2129846676
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?	>100 (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: ***Each of the following items must be included in the report.***

☒ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2129846676
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: ___Charles Beauvais_____ Title: __Senior Environmental Engineer_____

Signature:__Charles R. Beauvais II_____ Date: __09/28/2022_____

email: __Charles.R.Beauvais@conocophillips.com_____ Telephone: ___575-988-2043_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2129846676
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: ___Charles Beauvais_____ Title: __Senior Environmental Engineer_____

Signature: __Charles R. Beauvais II_____ Date: __09/28/2022_____

email: __Charles.R.Beauvais@conocophillips.com_____ Telephone: __575-988-2043_____

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 12/06/2022

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	NAPP2200639375
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips	OGRID	
Contact Name	Kelsy Waggaman	Contact Telephone	(432) 688 - 9057
Contact email	Kelsy.Waggaman@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2200639375
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.408333 Longitude -103.840278
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	James E Upper	Site Type	Tank Battery
Date Release Discovered	December 20, 2021	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
E	12	22S	30E	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) 3	Volume Recovered (bbls) 2
☒ Produced Water	Volume Released (bbls) 21	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a failed pressure relief valve on the production separator. The release occurred on and off pad. A vacuum truck was dispatched to remove all freestanding fluids. ConocoPhillips will have the spill area evaluated for any possible impact from the release.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200639375
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

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

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 1/6/2022

email: besparza@concho.com Telephone: (432) 221-0398

OCD Only

Received by: Ramona Marcus Date: 1/6/2022

L48 Spill Volume Estimate Form

NAPP2200639375

Facility Name & Number:	James E Upper
Asset Area:	Cabin Lake, Hobbs
Release Discovery Date & Time:	December 20th, 9:15 am
Release Type:	oil mixture
Provide any known details about the event:	Spill originated from the pressure releave valve on the production separator.

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	52.0	40.0	1.00	10.50%	30.853	3.240	13.00%	0.421	2.818
Rectangle B	120.0	180.0	0.25	10.50%	80.100	8.411	13.00%	1.093	7.317
Rectangle C	60.0	14.0	3.00	15.16%	37.380	5.667	13.00%	0.737	4.930
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Rectangle J					0.000	0.000		0.000	0.000
					Total Volume Release:	17.317		2.251	15.066

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 70845

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 70845
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/6/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200639375
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?	>100 (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: ***Each of the following items must be included in the report.***

☒ 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

Incident ID	NAPP2200639375
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: ___Charles Beauvais_____ Title: __Senior Environmental Engineer_____

Signature:__Charles R. Beauvais II_____ Date: __09/28/2022_____

email: __Charles.R.Beauvais@conocophillips.com_____ Telephone: ___575-988-2043_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200639375
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: ___Charles Beauvais_____ Title: __Senior Environmental Engineer_____

Signature: __Charles R. Beauvais II_____ Date: __09/28/2022_____

email: __Charles.R.Beauvais@conocophillips.com_____ Telephone: __575-988-2043_____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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	NAPP2202446534
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips	OGRID	217817
Contact Name	Kelsy Waggaman	Contact Telephone	(432) 688-9057
Contact email	Kelsy.Waggaman@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2202446534
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.408333 Longitude -103.840278
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	James E Upper	Site Type	Tank Battery
Date Release Discovered	January 1, 2022	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
E	12	22S	30E	Lea

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) 61	Volume Recovered (bbls) 0
☐ 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

The release was caused by a valve failure. The release occurred on and off pad. ConocoPhillips will have the spill area evaluated for impact from the release.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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? Release 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)?
Notification was given by Kelsy Waggaman via email on January 3, 2022 at 5:40 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 not been undertaken, explain why:

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

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 1/24/2022

email: Brittany.Esparza@ConocoPhillips.com Telephone: (432) 221-0398

OCD Only

Received by: Ramona Marcus Date: 1/24/2022

L48 Spill Volume Estimate Form

NAPP2202446534

Facility Name & Number:	James E Upper
Asset Area:	Cabin Lake, Hobbs
Release Discovery Date & Time:	December 20th, 9:15 am
Release Type:	oil mixture
Provide any known details about the event:	Spill originated from the pressure releave valve on the production separator.

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	52.0	40.0	1.00	10.50%	30.853	3.240	13.00%	0.421	2.818
Rectangle B	120.0	180.0	0.25	10.50%	80.100	8.411	13.00%	1.093	7.317
Rectangle C	60.0	14.0	3.00	15.16%	37.380	5.667	13.00%	0.737	4.930
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Rectangle J					0.000	0.000		0.000	0.000
					Total Volume Release:	17.317		2.251	15.066

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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?	>100 (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: ***Each of the following items must be included in the report.***

☒ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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Facility ID	
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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: ___Charles Beauvais_____ Title: __Senior Environmental Engineer_____

Signature: Charles R. Beauvais II Date: __09/28/2022_____

email: __Charles.R.Beauvais@conocophillips.com_____ Telephone: ___575-988-2043_____

OCD Only

Received by: ___Jocelyn Harimon_____ Date: ___09/28/2022___

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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.

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Printed Name: ___Charles Beauvais_____ Title: __Senior Environmental Engineer_____

Signature: __Charles R. Beauvais II_____ Date: __09/28/2022_____

email: __Charles.R.Beauvais@conocophillips.com_____ Telephone: __575-988-2043_____

OCD Only

Received by: Jocelyn Harimon Date: 09/28/2022

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

Signature: _____ Date: _____

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 147027

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 147027
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release, regardless of depth to groundwater. Variance has been approved: composite confirmation samples will be collected from the bottom of the excavation from areas representing no more than four hundred (400) square feet; sidewalls no more than two hundred (200) square feet.	12/6/2022