Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2124350596
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: ___Charles Beauvais_____ Title: ___Senior Environmental Engineer____

Signature: _____ Date: ___10/27/2022_____

email: __Charles.R.Beauvais@conocophillips.com____ Telephone: ___575-988-2043_____

OCD Only

Received by: Jocelyn Harimon Date: 10/31/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 12/08/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

October 27, 2022

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

Re: Closure Request
Nocaster 19 Federal 004H
Incident Number NAPP2124350596
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Nocaster 19 Federal 004H (Site). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil and produced water at the Site. Based on field observations, excavation activities, and laboratory analytical results from the soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2124350596.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 19, Township 23 South, Range 34 East, in Lea County, New Mexico (32.284085° N, 103.50286° W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On August 18, 2021, an oil dump diaphragm on a production knockout ruptured, causing the oil dump valve to malfunction. The malfunction resulted in a flare fire and the release of 0.9 barrels (bbls) of crude oil and 0.9 bbls of produced water. The release impacted the well pad and the adjacent pasture. No released fluids were recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on August 25, 2021, and subsequently submitted a *Release Notification Form C-141* (Form C-141) on August 31, 2021. The release was assigned Incident Number NAPP2124350596.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on 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 September 15, 2022, borehole BH01 (New Mexico Office of the State Engineer (NMOSE) file number C-04667) was advanced to a depth of 120 feet bgs

via air rotary drill rig. The borehole was located approximately 0.4 miles west of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling 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 groundwater beneath the Site is greater than 120 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent palustrine wetland, located approximately 2,340 feet southeast 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 not within a 100-year floodplain or overlying a subsurface mine. The Site is greater than 1,000 feet to a freshwater well or spring. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I 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 was applied 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.

SITE ASSESMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Following the receipt of the approved right-of-entry (ROE) Permit from the New Mexico State Land Office (NM SLO), Ensolum visited the Site on November 5, 2021, to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four preliminary assessment soil samples (SS01 through SS04) were collected within the release extent at a depth of 0.5 feet bgs, to assess the soil for impacts. 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 visible release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. A photographic log is included in Appendix B.

The 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 procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): 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 SS01 through SS04 indicated TPH-GRO/TPH-DRO, TPH, and chloride concentrations exceeded the Site Closure Criteria and/or the reclamation requirement. Based on visible staining in the release area and laboratory analytical results for preliminary soil samples, additional remediation activities were warranted.

DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

On Feburary 15, 2022, Ensolum was at the Site to perform delineation activities. Eight boreholes (BH01 through BH08) were advanced via hand-auger within and around the release extent to delineate the lateral and vertical extent of impacted and waste-containing soil. Boreholes BH01 through BH04 were advanced within the release in the vicinty of preliminary soil sample locations SS01 through SS04, respectively. The boreholes were advanced to a maximum depth of 5 feet bgs. Delination soil samples BH05 through BH08 were collected from the boreholes at depths ranging from 1-foot bgs to 5 feet bgs. Soil from the delineation samples was field screened for VOCs and chloride. Field screening results and observations from each borehole were documented on a lithologic/soil sampling log, which is included in Appendix C. The delineation borehole soil samples were collected, handled, and analyzed as described above and submitted to Eurofins in Carlsbad, New Mexico. The release extent and delineation soil sample locations are depicted on Figure 3.

Laboratory analytical results for the delineation samples collected from boreholes BH05 through BH08, advanced around the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement for samples collected in the top 4 feet of pasture areas. Based on the laboratory analytical results, the lateral extent of the release was successfully defined.

Laboratory analytical results for the delineation soil samples collected from borehole BH02, advanced within the pasture release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and compliant with the reclamation requirement. Laboratory analytical results for delineation soil samples collected from boreholes BH01, BH03, and BH04, advanced within the pasture release extent, indicated all COC concentrations were in compliance with the Site Closure Criteria; however, TPH and/or chloride concentrations exceeded the reclamation requirement at depths ranging from 1-foot to 3 feet bgs. The terminal depth sample collected at 5 feet bgs from borehole BH01 through BH04 indicated all COC concentrations were compliant with the Site Closure Criteria and successfully defined the vertival extent of the release. Based on laboratory analytical results, excavation activities were warranted.

EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS

Between April 26, 2022 and April 27, 2022, Ensolum personnel were on site to complete excavation activities. Impacted and waste-containing soil was excavated as indicated by visible staining and laboratory analytical results for the delineation soil samples. Excavation activities were performed using a track-mounted backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to depths ranging from 0.5 feet to 4 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of impacted and waste-containing soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS12 were collected from the floor of the excavation at depths ranging from 0.5 feet to 4 feet bgs. Composite soil samples SW01 through SW08 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. The excavation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 4.

The excavation measured approximately 2,311 square feet in areal extent. A total of approximately 342 cubic yards of impacted and waste-containing soil was removed during the excavation activities. The soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

Laboratory analytical results for excavation floor samples FS01 through FS12, and sidewall samples SW01 through SW08, collected from the final excavation extent indicated all COC concentrations were compliant with the Site Closure Criteria and/or reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the August 18, 2021, crude oil and produced water release. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and/or reclamation requirement. Based on the soil sample laboratory analytical results and confirmed depth to groundwater, no further remediation is required. COG will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Excavation of impacted and waste-containing soil has mitigated adverse conditions at this Site. COG believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2124350596. The Final C-141 is included in Appendix F.

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

Sincerely,
Ensolum, LLC

Hadlie Green
Staff Geologist

Kalei Jennings
Senior Scientist

cc: Charles Beauvais, COG Operating, LLC
New Mexico State Land Office

Appendices:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	Final C-141

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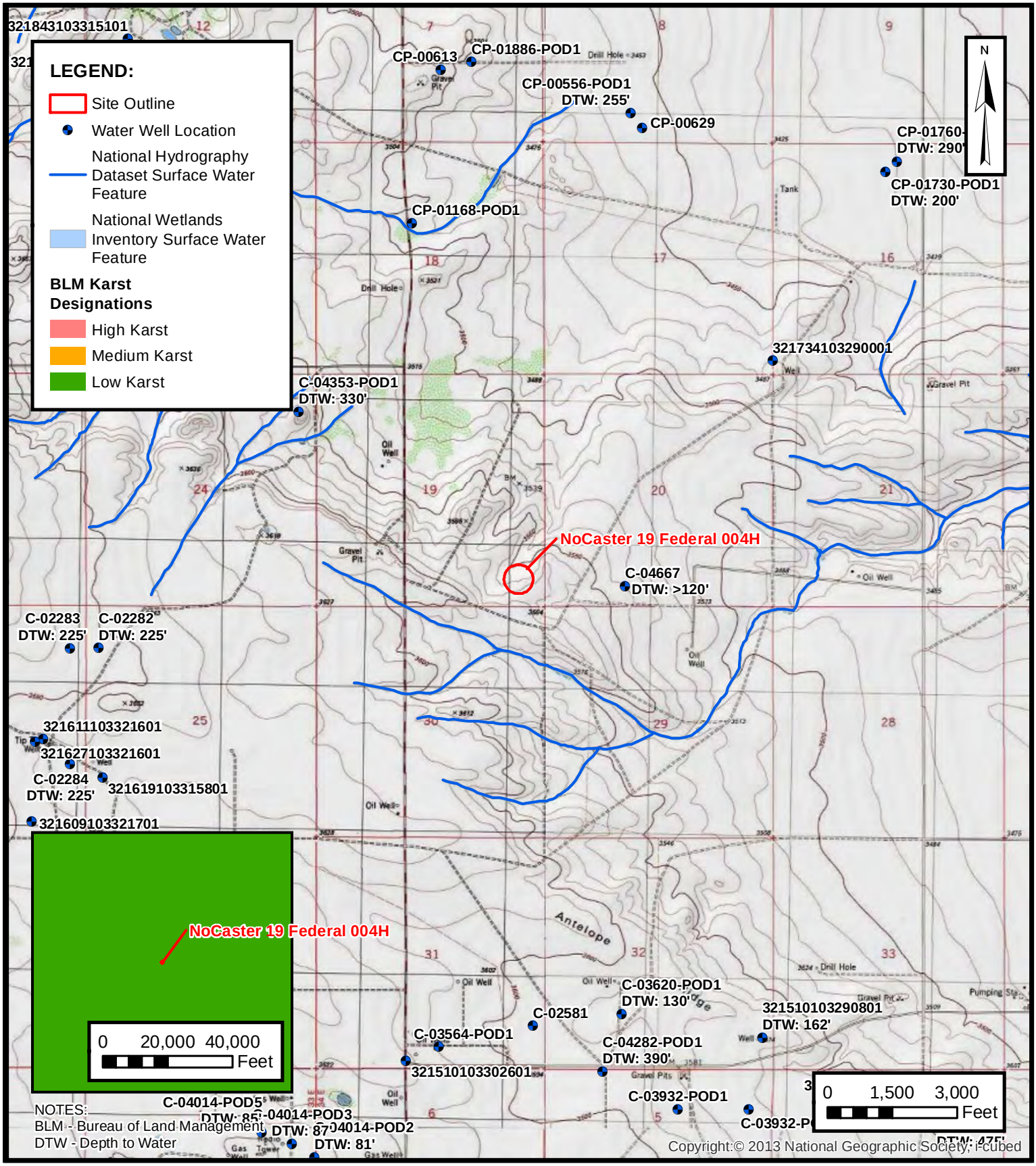
FIGURES



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Environmental, Engineering and Hydrogeologic Consultants

SITE LOCATION MAP

COG OPERATING, LLC
NOCASTER 19 FEDERAL 004H
NAPP2124350596
Unit P, Sec 19 T23S R34E
Lea County, New Mexico

FIGURE

1

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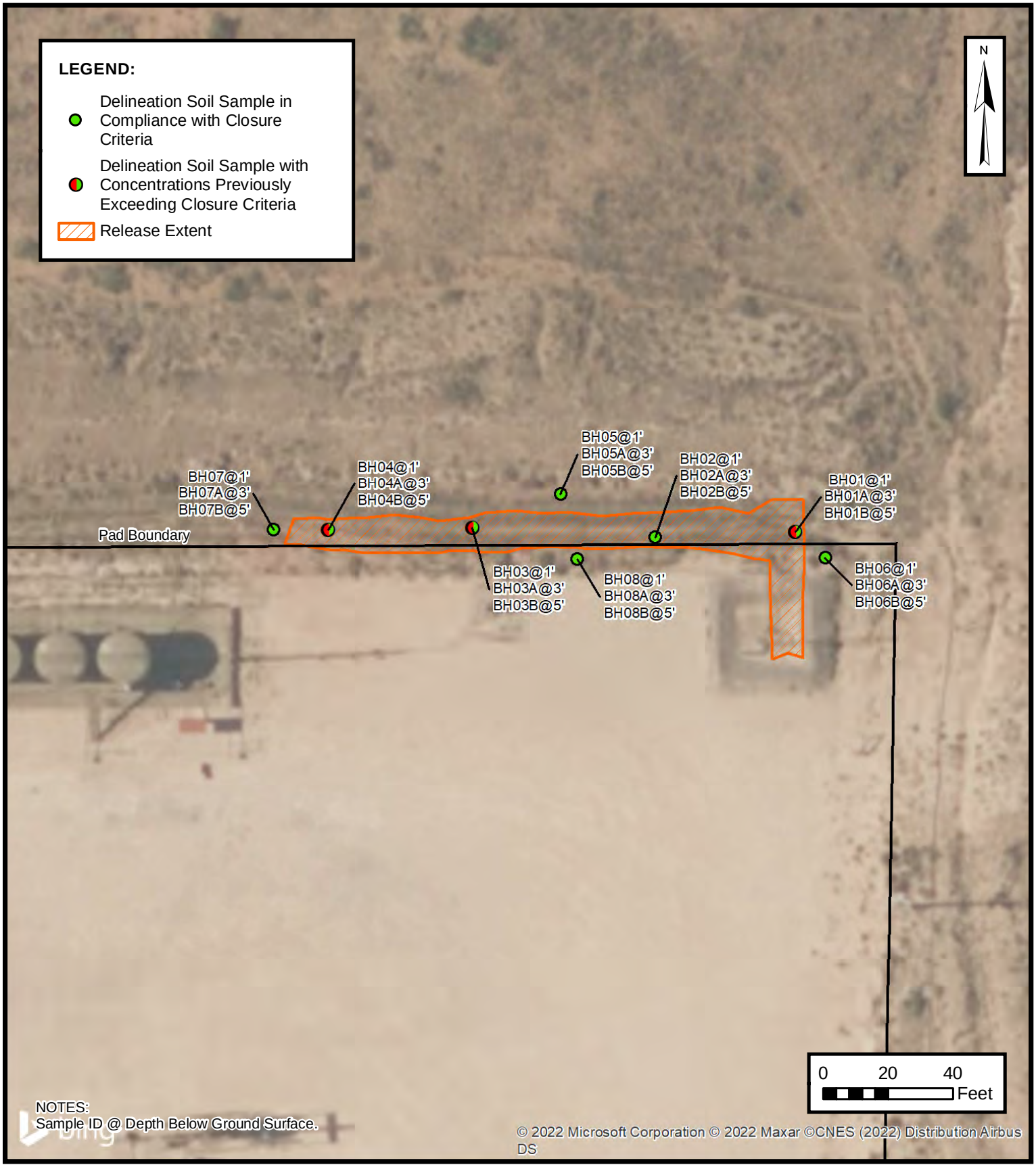
PRELIMINARY SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
NOCASTER 19 FEDERAL 004H
NAPP2124350596
Unit P, Sec 19 T23S R34E
Lea County, New Mexico

FIGURE

2



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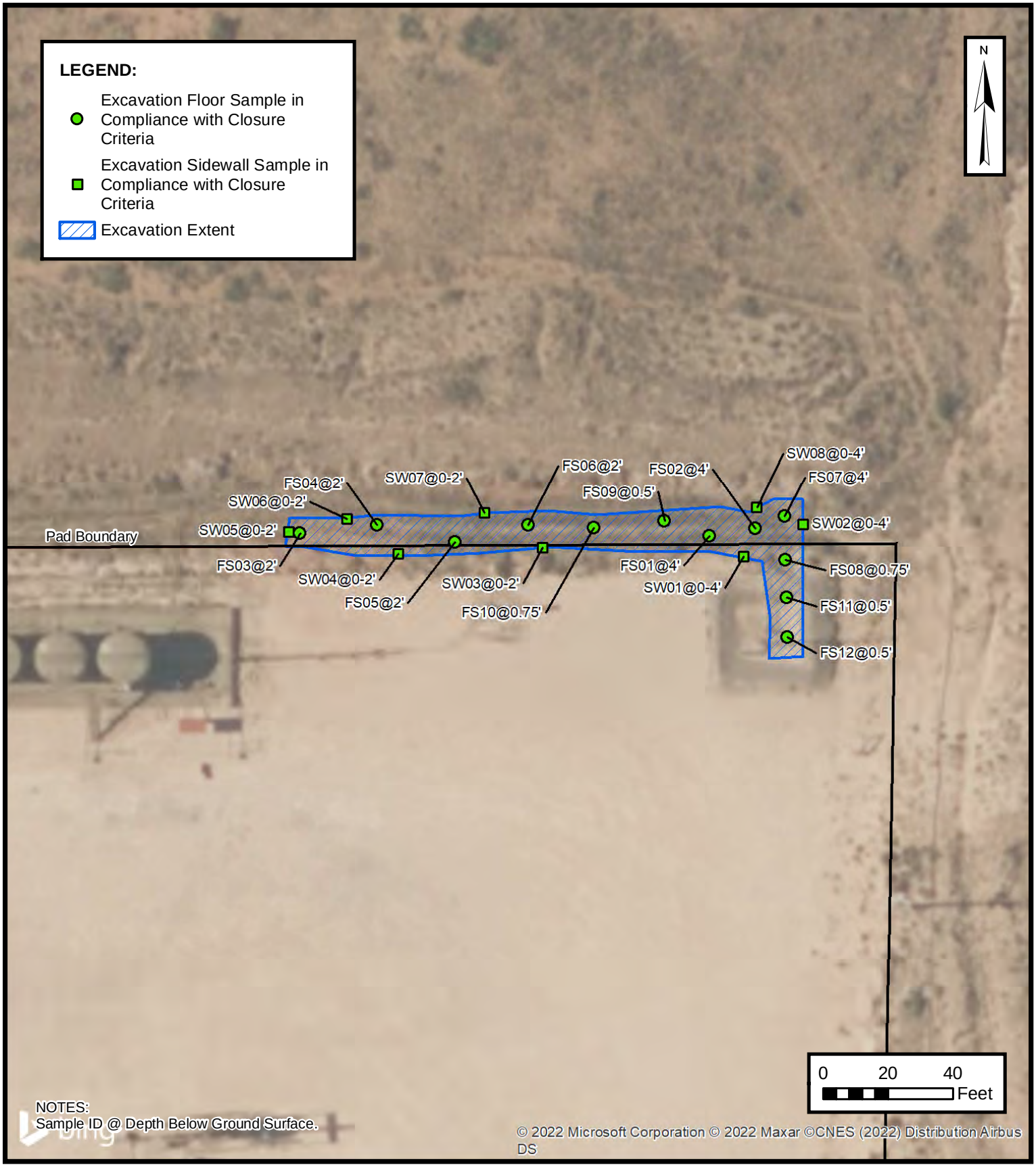
DELINEATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
NOCASTER 19 FEDERAL 004H
NAPP2124350596
Unit P, Sec 19 T23S R34E
Lea County, New Mexico

FIGURE
3



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EXCAVATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
NOCASTER 19 FEDERAL 004H
NAPP2124350596
Unit P, Sec 19 T23S R34E
Lea County, New Mexico

FIGURE
4

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
NoCaster 19 Federal 004H
COG Operating, LLC
Lea County, New Mexico

Sample Designation	Date	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										
SS01	11/05/2021	0.5	<0.00200	<0.00399	<49.8	4,290	<49.8	**4,290**	**4,290**	166*
SS02	11/05/2021	0.5	<0.00202	<0.00403	<49.9	151	<49.9	151	151	1,330*
SS03	11/05/2021	0.5	<0.00199	<0.00398	<50.0	65	<50.0	65.3	65.3	7,310*
SS04	11/05/2021	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	11,900*
Delineation Soil Samples										
BH01	02/15/2022	1	<0.00198	<0.00397	<50.0	113	<50.0	113	113	960*
BH01A	02/15/2022	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,430*
BH01B	02/15/2022	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	761
BH02	02/15/2022	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	30.5*
BH02A	02/15/2022	3	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	20.1*
BH02B	02/15/2022	5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	27.4
BH03	02/15/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	689*
BH03A	02/15/2022	3	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	234*
BH03B	02/15/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	57.0
BH04	02/15/2022	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	644*
BH04A	02/15/2022	3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	150*
BH04B	02/15/2022	5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	12.9
BH05	02/15/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	531*
BH05A	02/15/2022	3	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	41.1*
BH05B	02/15/2022	5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	30.9
BH06	02/15/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	700
BH06A	02/15/2022	3	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	833
BH06B	02/15/2022	5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	495

BH07	02/15/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	392*
BH07A	02/15/2022	3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	56.1*
BH07B	02/15/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	26.1
BH08	02/15/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	44.0
BH08A	02/15/2022	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	12.1
Excavation Floor Soil Samples										
FS01	04/27/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	271
FS02	04/27/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	754
FS03	04/26/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	117*
FS04	04/27/2022	2	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	166*
FS05	04/27/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	447*
FS06	04/27/2022	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	299*
FS07	04/27/2022	4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	215
FS08	04/27/2022	0.75	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	624
FS09	04/27/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	586*
FS10	04/27/2022	0.75	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	344*
FS11	04/27/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	20.5
FS12	04/27/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	19.2
Excavation Sidewall Soil Samples										
SW01	04/26/2022	0 - 4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	21.2*
SW02	04/26/2022	0 - 4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	11.7*
SW03	04/26/2022	0 - 2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	351*
SW04	04/26/2022	0 - 2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	19.5*
SW05	04/27/2022	0 - 2	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	222*
SW06	04/27/2022	0 - 2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	566*
SW07	04/27/2022	0 - 2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	14.9*
SW08	04/27/2022	0 - 4	<0.00200	0.212	<49.9	<49.9	<49.9	<49.9	<49.9	243*

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in ***bold*** *exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.*

Grey *text represents samples that have been excavated*

** indicates soil in the top 4 feet of pasture to be reclaimed*

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APPENDIX A

Referenced Well Records

ENSOLUM

Sample Name: BH01 (C-04667)	Date: 09/15/2022	
Site Name: Stratocaster 20 Federal 002H		
Incident Number: NAPP2124350596		
Job Number: 03D2024007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Hadlie Green	Method: Air Rotary
Coordinates: 32.282916, -103.504054	Hole Diameter: 6"	Total Depth: 120'

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.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	CALICHE, light tan, fine to medium grained upto 1" limestone clasts, slightly moist, no stain/odor.
						10	SM	SILTY SAND, tannish brown, fine grained, less limestone clasts, well sorted, no stain/odor.
						20		
						30		
						40	SM	SAA, light brown, trace gravel, some clay.
						50		
						60	SM	SAA, reddish brown, more clay mudstone clasts (1-2 cm).
						70		
						80	SM	SAA, less mudstone clasts.
						90		
						100	SM	SAA, some green mudstone clasts.
						110	SM	SILTY SAND, dark reddish brown, fine clay, green mudstone clasts absent, well sorted, slightly consolidated, no stain/odor.
						120	SM	SAA

TD @ 120 ft bgs

File No. C-04667

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☒ Other(Describe): Environmental Sampling
☐ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date:	Requested End Date:
Plugging Plan of Operations Submitted? ☒ Yes ☐ No	

1. APPLICANT(S)

Name: Charles Beauvais	Name: Kalei Jennings
Contact or Agent: COG Operating, LLC. check here if Agent ☐	Contact or Agent: Ensolum check here if Agent ☒
Mailing Address: 2208 W Main Street	Mailing Address: 601 N. Marienfield St. Suite 400
City: Artesia	City: Midland
State: New Mexico Zip Code: 88210	State: Texas Zip Code: 79701
Phone: 575-988-2043 ☐ Home ☒ Cell Phone (Work):	Phone: 817-683-2503 ☐ Home ☒ Cell Phone (Work):
E-mail (optional): charles.beauvais@conocophillips.com	E-mail (optional): kjennings@ensolum.com

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-04667	Trn. No.: 733232	Receipt No.: 2-44954
Trans Description (optional): C-04667-POD1		
Sub-Basin: C	PCW/LOG Due Date: 9/2/23	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C-04667-POD1 ~~BH01~~	32.284043	-103.494490	Unit N, Sec 20, T 23S, R 34E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ **Yes** ■ **No** **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:
Located on the Stratocaster 20 Federal 002H pad (32.284043, -103.494490)

Well is on land owned by: BLM

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. **Attached?** ☐ **Yes** ■ **No**
If yes, how many_____

Approximate depth of well (feet): 110	Outside diameter of well casing (inches): NA
Driller Name: West Texas Water Well Services	Driller License Number: WD #1184

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

COG Operating, LLC (COG) will oversee installation of a soil boring to approximately 110 feet below ground surface. The soil boring will be left open for approximately 72 hours, to allow for the slow infill of groundwater. An oil-water interface probe will be utilized to confirm depth to groundwater in the soil boring. The depth to water boring is located at 32.284043, -103.494490 and will confirm regional depth to water and assist with determination for Nocaster 19 Fed 004H (Incident Number NAPP2124350596) and Broadcaster 29 Federal 3H (Incident Numbers NAPP2132773092 and NAPP2201938653).

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FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-04667	Trn No.: 733232

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory:	**Pollution Control and/or Recovery:**	**Construction De-Watering:**	**Mine De-Watering:**
☒ Include a description of any proposed pump test, if applicable.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ☐ Include the reason for the monitoring well, and, ☐ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Kalei Jennings

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Kalei Jennings

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☑ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 2 day of September 20 22, for the State Engineer,

Mike Hamman, P.E., State Engineer

By: K. Parekh
Signature

Kashyap Parekh
Print

Title: Water Resource Manager I
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-04667 | Trn No.: 733232

OSE DIT AUG 18 2022 PM

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *– Other instructions on page 2.*

5. Lease Serial No.
NMNM105444932

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Stratocaster 20 Federal #002H

2. Name of Operator
COG Operating, LLC

9. API Well No.
30-025-41381

3a. Address
2208 W Main Street
Artesia, NM 88210

3b. Phone No. *(include area code)*
575-988-2043

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
32.284043, -103.494490 (Unit N, Sec 20, T 23S, R 34E)

11. Country or Parish, State
Lea County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Surface Disturbance
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

COG Operating, LLC (COG) respectfully requests access represented within the attached file to install (1) soil boring to assist with depth to water determination for NoCaster 19 Fed 004H (Incident Number NAPP2124350596) and Broadcaster 29 Federal 3H (Incident Number NAPP2132773092 and NAPP2201938653). The proposed borehole location is on COG Operating pad Stratocaster 20 Federal 002H located at 32.284043, -103.494490. COG will oversee the installation of a soil boring to approximately 110 feet below ground surface. The soil boring will be left open for approximately 72 hours, to allow for the slow infill of groundwater. Following the 72 hour waiting period, the soil boring will be backfilled following New Mexico Office of the State Engineer plugging procedures. A site map and kmz depicting the location of the site and the proposed soil boring location are included with this Form 3160.

OCD Artesia AUG 18 2022 PM 1:35

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
Charles Beauvais

Title Senior Environmental Engineer

Signature *Charles R. Beauvais II*

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and grantingapproval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

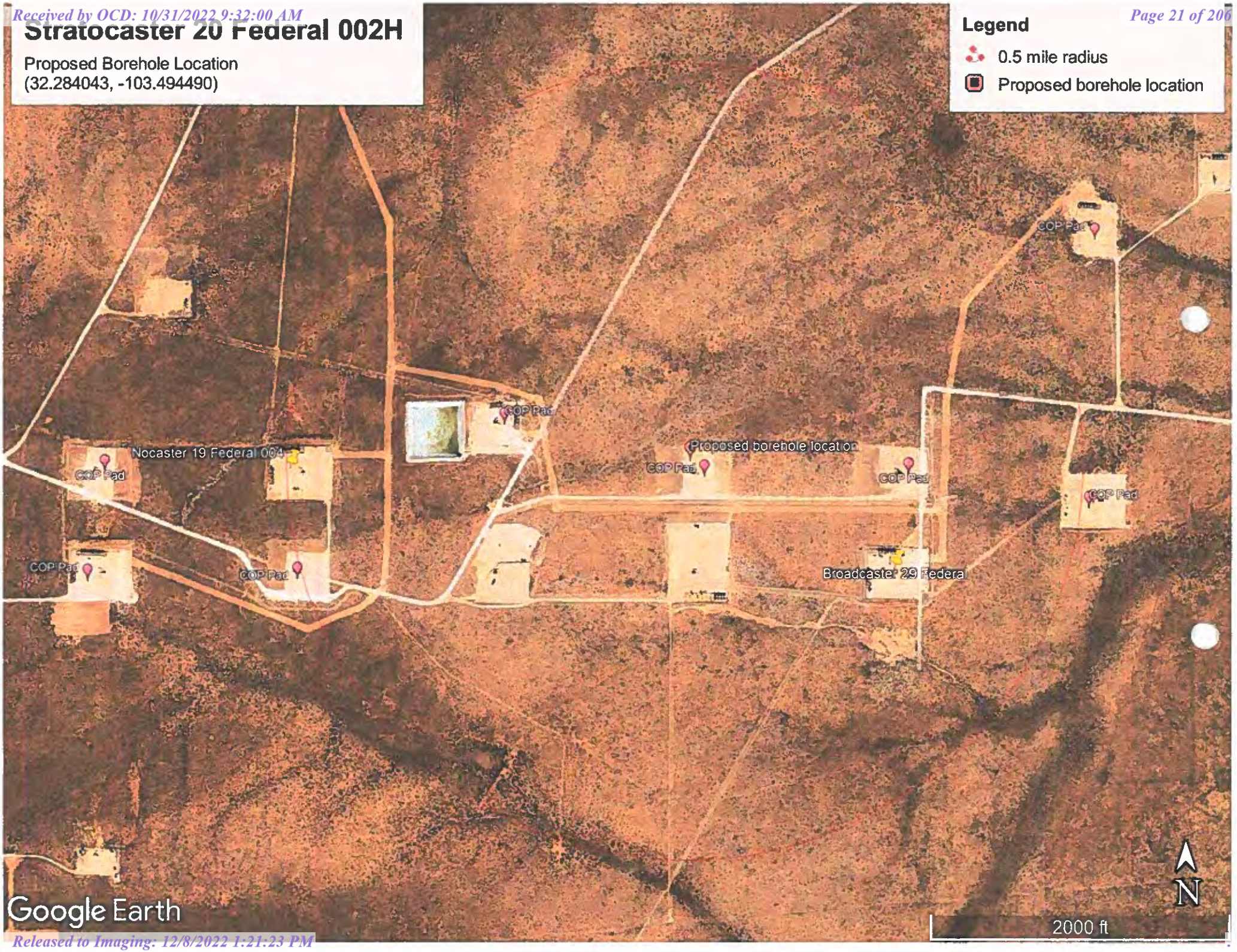
Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Stratocaster 20 Federal 002H

Proposed Borehole Location
(32.284043, -103.494490)



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220-6292

In Reply Refer To:
3162.4 (NM-080)
NMNM105444932

August 15, 2022

NM Office of the State Engineer
1900 W. Second St.
Roswell, NM 88201

Re: Stratocaster 20 Federal 2H
30-025-41381
Section 20, T23S-R34E
32.284043,-103.494490
Lea County, New Mexico

To Whom It May Concern:

The above well location and the immediate area mentioned above requires advanced soil boring to take place at approximately 110 feet below ground surface via a truck-mounted rig with hallow stem auger equipment. The boring will be secured and left open for 72 hours at which time COG Operating LLC will assess for the presence or absence of groundwater. An oil-water interface probe will be utilized to confirm depth to groundwater in the soil boring. The Bureau of Land Management (landowner) authorizes the access of the area to accomplish depth to groundwater determination of this site.

If you have any questions contact Crisha Morgan, at 575-234-5987.

Sincerely,

Crisha Morgan

Crisha A. Morgan
Certified Environmental Protection Specialist

RECEIVED OCD AUG 10 2022 PM 1:35

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04667 File Number: C 04667
Trn Number: 733232

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.

17-G If artesian water is encountered, the well driller shall comply with all rules and regulations pertaining to the drilling and casing of artesian wells.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

LOG The Point of Diversion C 04667 POD1 must be completed and the Well Log filed on or before 09/02/2023.

IT IS THE PERMITTEE_S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 09/02/2022	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

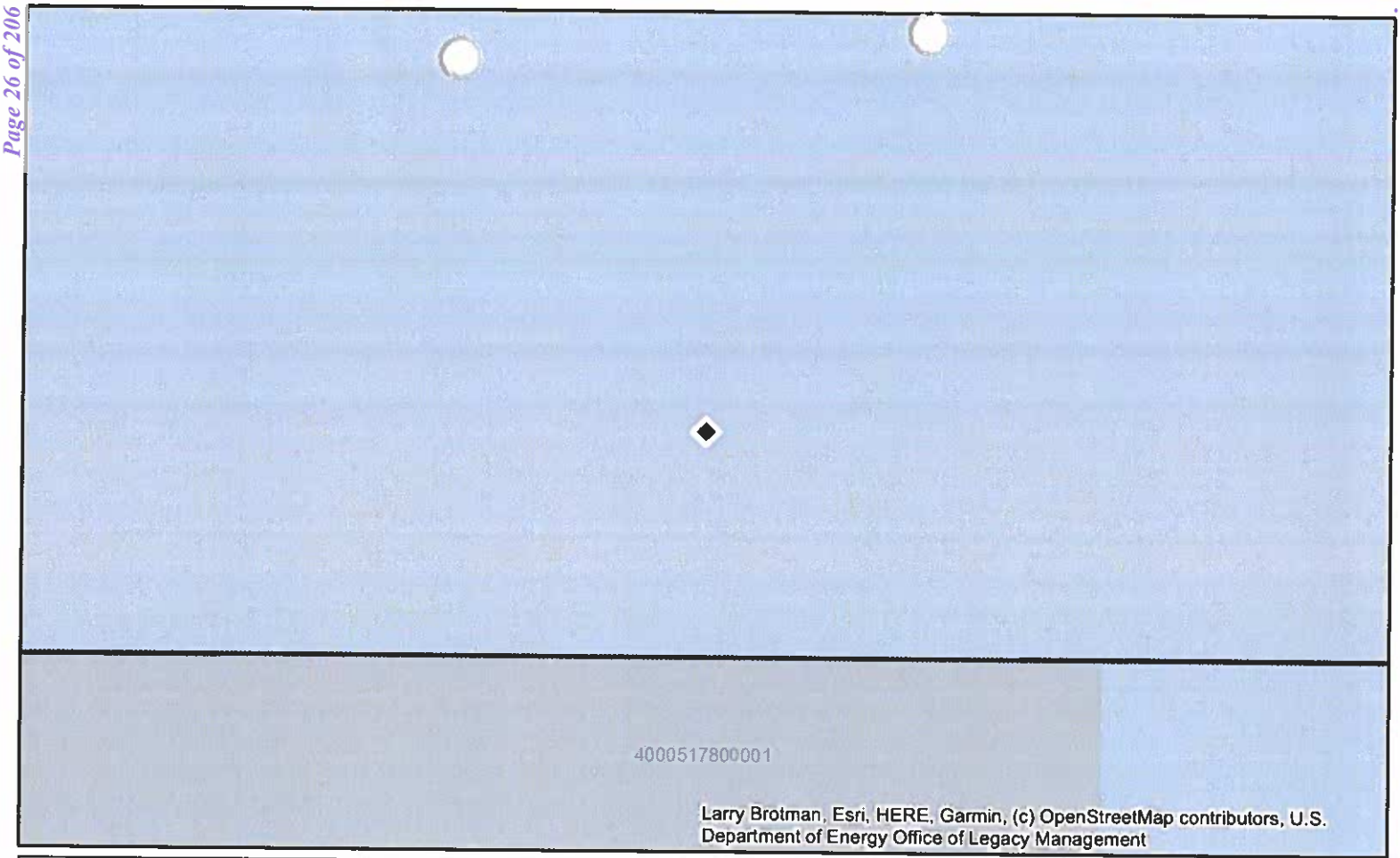
Witness my hand and seal this 02 day of Sep A.D., 2022

Mike A. Hamman, P.E., State Engineer

By: K. Parekh
KASHYAP PAREKH

Trn Desc: C 04667

File Number: C 04667
Trn Number: 733232



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 641771.256

Northing 3572914.822

State Plane - NAD 83 (f) - Zone E

Easting 800570.933

Northing 468079.306

Degrees Minutes Seconds

Latitude 32 : 17 : 2.554800

Longitude -103 : 29 : 40.164000

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

ft

0 90 180 360

N

M.TELLES 9/2/2022

Office of the State Engineer

Interstate Stream Commission

Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately represent the source data used in their preparation; however, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, rectification, positional accuracy, development methodology, interpretation of source data, and other circumstances.

These maps are distributed "as is" without warranty of any kind.

Spatial Information

County: Lea

Groundwater Basin: Carlsbad

Abstract Area: Carlsbad 72-12-1
Carlsbad Underground Basin

Land Grant:
Not in Land Grant

Restrictions:

PLSS Description

NESWSESW Qtr of Sec 20 of 023S 034E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum:

Parcel Owner:

Address: null null null

Legal:

POD Information

Owner:

File Number:

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose:

- Coord Search Location
- Water Rights Regulations
  - Closure Area
  - OSE District Boundary
- New Mexico State Trust Lands
  - Subsurface Estate
- Bernalillo County Parcels 2022
- Catron County Parcels 2022
- Chaves County Parcels 2022
- Cibola County Parcels 2022
- Colfax County Parcels 2022
- Curry County Parcels 2022
- De Baca County Parcels 2022
- Doña Ana County Parcels 2022
- Eddy County Parcels 2022
- Grant County Parcels 2022
- Harding County Parcels 2022
- Hidalgo County Parcels 2022
- Guadalupe County Parcels 2022
- Lea County Parcels 2022
- Lincoln County Parcels 2022
- Los Alamos County Parcels 2022
- Luna County Parcels 2022
- McKinley County Parcels 2022
- Mora County Parcels 2022
- Otero County Parcels 2022
- Quay County Parcels 2022
- Rio Arriba County Parcels 2022
- Roosevelt County Parcels 2022
- Sandoval County Parcels 2022
- San Juan County Parcels 2022
- San Miguel County Parcels 2022
- Santa Fe County Parcels 2022
- Sierra County Parcels 2022
- Socorro County Parcels 2022
- Taos County Parcels 2022
- Torrance County Parcels 2022
- Union County Parcels 2022
- Valencia County Parcels 2022
- SiteBoundaries

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 733232
File Nbr: C 04667

Sep. 02, 2022

COG OPERATING, LLC
CHARLES BEAUVAIS
2208 W MAIN ST
ARTESIA, NM 88210

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Megen Telles
(575)622-6521

Enclosure

explore

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 733232
File Nbr: C 04667

Sep. 02, 2022

ENSOLUM
KALEI JENNINGS
601 N MARIENFIELD ST SUITE 400
MIDLAND, TX 79701

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Megen Telles
(575)622-6521

Enclosure

explore

WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP: ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: ~~BH01~~ C-4667-POD1

Name of well owner: COG Operating, LLC

Mailing address: 2208 W Main Street County:

City: Artesia State: New Mexico Zip code: 88210

Phone number: 575-988-2043 E-mail: charles.beauvais@conocophillips.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: West Texas Drilling Services

New Mexico Well Driller License No.: WD# 1184 Expiration Date: 10/31/2023

IV. WELL INFORMATION: ☐ **Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.**

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32 deg, 17 min, 2.55 sec
Longitude: 103 deg, 29 min, 40.16 sec, NAD 83

2) Reason(s) for plugging well(s):

Soil boring

3) Was well used for any type of monitoring program? No If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? N/A If yes, provide additional detail, including analytical results and/or laboratory report(s):

5) Static water level: >100 feet below land surface / feet above land surface (circle one)

6) Depth of the well: 110 feet

7) Inside diameter of innermost casing: 2 inches.

8) Casing material: Temporary PVC SCH 40

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: N/A

☐ a well screen or perforated pipe, state the screened interval(s): N/A

10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A

11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? _____ If yes, please describe:

12) Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

☐ **If plugging method differs between multiple wells on same site, a separate form must be completed for each method.**

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

The temporary 2" well material will be removed. If no water is encountered, drill cuttings will be used to ten feet below ground surface (bgs) and plugged using hydrated bentonite. If groundwater is encountered the boring will be plugged, tremie from bottom to a slurry of Portland Type I/II cement in lifts.

2) Will well head be cut-off below land surface after plugging? N/A

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: 287

4) Type of Cement proposed: Type I/II

5) Proposed cement grout mix: <6.0 gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____ batch-mixed and delivered to the site

X mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

N/A

8) Additional notes and calculations:

N/A

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

N/A

VIII. SIGNATURE:

I, Kalei Jennings, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Kalei Jennings — Signature of Applicant

08/15/2022 — Date

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

X Approved subject to the attached conditions.

_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 22nd day of August, 2022

Mike A. Hamman

~~John R. D'Antonio Jr.~~ P.E., New Mexico State Engineer

By: K. Parekh

KASHYAP PAREKH

W.R.M. I

GREAT SEAL OF THE STATE OF NEW MEXICO * 1912 *

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	N/A	N/A	0
Bottom of proposed interval of grout placement (ft bgl)	N/A	N/A	100
Theoretical volume of grout required per interval (gallons)	N/A	N/A	287
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	N/A	N/A	<6.0
Mixed on-site or batch-mixed and delivered?	N/A	N/A	onsite
Grout additive 1 requested	N/A	N/A	N/A
Additive 1 percent by dry weight relative to cement	N/A	N/A	N/A
Grout additive 2 requested	N/A	N/A	N/A
Additive 2 percent by dry weight relative to cement	N/A	N/A	N/A

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	N/A	N/A	0
Bottom of proposed sealant of grout placement (ft bgl)	N/A	N/A	10
Theoretical volume of sealant required per interval (gallons)	N/A	N/A	26
Proposed abandonment sealant (manufacturer and trade name)	N/A	N/A	Baroid Hold Plug

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

Mike A. Hamman, P.E.
State Engineer

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623-8559

August 22, 2022

COG Operating LLC
2208 W. Main Street
Artesia, NM 88210

RE: Well Plugging Plan of Operations for well no. C-4667-POD1

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced well subject to the attached Conditions of Approval. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer. subject to the attached Conditions of Approval.

Well Plugging Plan of Operations form (WD-08) has been updated. Current form can be found on the OSE website at the following link https://www.ose.state.nm.us/Statewide/wdForms.php.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

K. Parekh

Kashyap Parekh
Water Resources Manager I

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623- 8559

Applicant has identified wells, listed below, to be plugged. West Texas Drilling Services (WD-1184) will perform the plugging.

Permittee: COG Operating LLC
NMOSE Permit Number: C-4667-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4667-POD1	2	110	100	32° 17' 2.55"	103° 29' 40.16''

Specific Plugging Conditions of Approval for Well located in Eddy County.

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.

2. The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 287.0 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 110 feet.

3. **Ground Water encountered:** Type I/II Portland cement mixed with 5.2 to 6.0 gallons of fresh water per 94-lb sack of cement is approved for the plugging the well.

4. **Dry Hole:** (a) Drill cuttings up to ten feet of land surface. (b) 10 feet to 0 feet – Hydrated bentonite. The bentonite shall be hydrated separately with fresh water at the rate of 5 gallons per 50-lb sack/bucket.

5. Sealant shall be placed by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner that displaces the standing water column upwards from below. Tremie pipe may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

6. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. of these Specific Conditions of Approval.

7. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.

8. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the more-stringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.

9. NMOSE witnessing of the plugging of the shallow well will not be required.

10. Any deviation from this plan must obtain an approved variance from this office prior to implementation.

11. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

The NMOSE Well Plugging Plan of Operations is hereby approved with the aforesaid conditions applied.

Witness my hand and seal this 22nd day of August 2022

Mike A. Hamman, P.E. State Engineer

By: K. Parekh

Kashyap Parekh
Water Resources Manager I

ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
COG Operating, LLC
NoCaster 19 Federal 004H
Incident Number NAPP2124350596

Photograph 1 Date: 11/5/2021
Description: Photo of release extent taken during initial site assessment activities.

Photograph 2 Date: 2/15/2022
Description: Photo of BH03 taken during delineation activities.

Photograph 3 Date: 4/27/2022
Description: Photo of final excavation extent.

Photograph 4 Date: 4/27/2022
Description: Photo of final excavation extent.

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: BH01	Date: 02/15/2022	
Site Name: NoCaster 19 Federal 004H		
Incident Number: NAPP2124350596		
Job Number: 03D2024007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.284265, -103.502147	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	823.2	1.3	N	BH01	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain, no odor.
D	2,312	1.2	N			2	SP-SC	SAA
D	1,646	1.6	N	BH01A	3	3	SP-SC	SAA, abundant silt.
D	1,232	1.2	N			4	SP-SC	SAA
D	823	1.3	N	BH01B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

	Sample Name: BH02	Date: 02/15/2022
	Site Name: NoCaster 19 Federal 004H	
	Incident Number: NAPP2124350596	
	Job Number: 03D2024007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.284265, -103.50286	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	296.8	0.9	N	BH02	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grained, well sorted, poorly graded, no stain, no odor.
D	<179.2	1.3	N			2	SP-SC	SAA
D	<179.2	1.1	N	BH02A	3	3	SP-SC	SAA
D	<179.2	1.2	N			4	SP-SC	SAA
D	<179.2	1	N	BH02B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

Sample Name: BH03	Date: 02/15/2022	
Site Name: NoCaster 19 Federal 004H		
Incident Number: NAPP2124350596		
Job Number: 03D2024007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.284279, -103.502467	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,142	0.3	N	BH03	1	1	SP-SC	SAND, dark brown, dry, abundant clay, some silt, fine grained, well sorted, poorly graded, trace plant roots, no stain, no odor.
D	392	0.6	N			2	SP-SC	SAA, no plant roots.
D	252	1.2	N	BH03A	3	3	SP-SC	SAA
D	<179.2	0.6	N			4	SP-SC	SAA
D	<179.2	0.7	N	BH03B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

Sample Name: BH04	Date: 02/15/2022	
Site Name: NoCaster 19 Federal 004H		
Incident Number: NAPP2124350596		
Job Number: 03D2024007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.284284, -103.502588	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,764	1.2	N	BH04	1	1	SP-SC	SAND, dark reddish brown, dry, abundant silt and clay, well sorted, poorly graded, trace caliche gravel, no stain, no odor.
D	832	1.3	N			2	SP-SC	SAA, dark brown, no caliche gravel.
D	<179.2	0.6	N	BH04A	3	3	SP-SC	SAA
D	<179.2	1.3	N			4	SP-SC	SAA
D	<179.2	1.3	N	BH04B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

Sample Name: BH05	Date: 02/15/2022	
Site Name: NoCaster 19 Federal 004H		
Incident Number: NAPP2124350596		
Job Number: 03D2024007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.2843058, -103.5023658	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	560	0.3	N	BH05	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, well sorted, poorly graded, no stain, no odor.
D	179	0.4	N			2	SP-SC	SAA
D	<179.2	0.5	N	BH05A	3	3	SP-SC	SAA
D	<179.2	0.4	N			4	SP-SC	SAA
D	<179.2	0.7	N	BH05B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

	Sample Name: BH06	Date: 02/15/2022
	Site Name: NoCaster 19 Federal 004H	
	Incident Number: NAPP2124350596	
	Job Number: 03D2024007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.2842670, -103.5021051	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	498	0	N	BH06	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grained, well sorted, poorly graded, no stain, no odor.
D	896	0.1	N			2	SP-SC	SAA
D	896	0.1	N	BH06A	3	3	SP-SC	SAA, abundant silt.
D	252	0.2	N			4	SP-SC	SAA
D	342	0.1	N	BH06B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

Sample Name: BH07	Date: 02/15/2022	
Site Name: NoCaster 19 Federal 004H		
Incident Number: NAPP2124350596		
Job Number: 03D2024007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.284281, -103.502644	Hole Diameter: 3"	Total Depth: 5'

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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	392	0	N	BH07	1	1	SP-SC	SAND, dark reddish brown, dry, abundant silt and clay, fine grained, well sorted, poorly graded, trace caliche gravel, no stain, no odor.
D	213	0.1	N			2	SP-SC	SAA, dark brown, no caliche gravel.
D	<179.2	0.1	N	BH07A	3	3	SP-SC	SAA
D	<179.2	0.6	N			4	SP-SC	SAA
D	<179.2	0.6	N	BH07B	5	5	SP-SC	SAA

TD @ 5 ft bgs

ENSOLUM

	Sample Name: BH08	Date: 02/15/2022
	Site Name: NoCaster 19 Federal 004H	
	Incident Number: NAPP2124350596	
	Job Number: 03D2024007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Hand Auger
Coordinates: 32.2842476, -103.5023446	Hole Diameter: 3"	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. A 40% error factor is included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<179.2	0.6	N	BH08	1	1	SP-SC	SAND, dark reddish brown, dry, abundant silt and clay, fine grained, well sorted, poorly graded, trace caliche gravel, no stain, no odor.
D	<179.2	0.6	N	BH08A		2	SP-SC	SAND, light brown, dry, abundant silt/clay and caliche, fine grain, well sorted, poorly graded, no stain, no odor.

TD @ 2 ft bgs

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: 890-1546-1
Laboratory Sample Delivery Group: 31402909.16
Client Project/Site: NoCaster 19 Federal 004h

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/15/2021 3:48:00 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: NoCaster 19 Federal 004h

Laboratory Job ID: 890-1546-1
SDG: 31402909.16

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1546-1
Project/Site: NoCaster 19 Federal 004h SDG: 31402909.16

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Job ID: 890-1546-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1546-1

Receipt
The samples were received on 11/8/2021 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-11824/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Client Sample ID: SS01

Lab Sample ID: 890-1546-1
Matrix: Solid
Date Collected: 11/05/21 15:53
Date Received: 11/08/21 16:15
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		11/10/21 09:30	11/10/21 15:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 15:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 15:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/10/21 09:30	11/10/21 15:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 15:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/10/21 09:30	11/10/21 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/10/21 09:30*	*11/10/21 15:53*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/10/21 09:30*	*11/10/21 15:53*	*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			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**4290**		49.8		mg/Kg			11/11/21 15:24	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		11/11/21 08:21	11/11/21 16:48	1
Diesel Range Organics (Over C10-C28)	**4290**		49.8		mg/Kg		11/11/21 08:21	11/11/21 16:48	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/11/21 08:21	11/11/21 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/11/21 08:21*	*11/11/21 16:48*	*1*
o-Terphenyl	*77*		*70 - 130*	*11/11/21 08:21*	*11/11/21 16:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**166**		4.95		mg/Kg			11/14/21 01:34	1

Client Sample ID: SS02

Lab Sample ID: 890-1546-2
Matrix: Solid
Date Collected: 11/05/21 15:55
Date Received: 11/08/21 16:15
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		11/10/21 09:30	11/10/21 16:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/10/21 09:30	11/10/21 16:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/10/21 09:30	11/10/21 16:13	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/10/21 09:30	11/10/21 16:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/10/21 09:30	11/10/21 16:13	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/10/21 09:30	11/10/21 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/10/21 09:30*	*11/10/21 16:13*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1546-1
Project/Site: NoCaster 19 Federal 004h SDG: 31402909.16

Client Sample ID: SS02 Lab Sample ID: 890-1546-2

Date Collected: 11/05/21 15:55 **Matrix: Solid**
Date Received: 11/08/21 16:15
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/10/21 09:30*	*11/10/21 16:13*	*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			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**151**		49.9	mg/Kg			11/11/21 15:24	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		11/11/21 08:21	11/11/21 17:09	1
Diesel Range Organics (Over C10-C28)	**151**		49.9	mg/Kg		11/11/21 08:21	11/11/21 17:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/11/21 08:21	11/11/21 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*11/11/21 08:21*	*11/11/21 17:09*	*1*
o-Terphenyl	*108*		*70 - 130*	*11/11/21 08:21*	*11/11/21 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1330**		4.98	mg/Kg			11/14/21 01:39	1

Client Sample ID: SS03 Lab Sample ID: 890-1546-3

Date Collected: 11/05/21 15:57 **Matrix: Solid**
Date Received: 11/08/21 16:15
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		11/10/21 09:30	11/10/21 18:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/10/21 09:30	11/10/21 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/10/21 09:30*	*11/10/21 18:02*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/10/21 09:30*	*11/10/21 18:02*	*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			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.3**		50.0	mg/Kg			11/11/21 15:24	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Client Sample ID: SS03

Lab Sample ID: 890-1546-3
Matrix: Solid
Date Collected: 11/05/21 15:57
Date Received: 11/08/21 16:15
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	<50.0	U	50.0		mg/Kg		11/11/21 08:21	11/11/21 17:30	1
Diesel Range Organics (Over C10-C28)	**65.3**		50.0		mg/Kg		11/11/21 08:21	11/11/21 17:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/11/21 08:21	11/11/21 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*11/11/21 08:21*	*11/11/21 17:30*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/11/21 08:21*	*11/11/21 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7310**		49.5		mg/Kg			11/14/21 01:44	10

Client Sample ID: SS04

Lab Sample ID: 890-1546-4
Matrix: Solid
Date Collected: 11/05/21 15:58
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/10/21 09:30	11/10/21 18:23	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/10/21 09:30	11/10/21 18:23	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/10/21 09:30	11/10/21 18:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/10/21 09:30	11/10/21 18:23	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/10/21 09:30	11/10/21 18:23	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/10/21 09:30	11/10/21 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/10/21 09:30*	*11/10/21 18:23*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/10/21 09:30*	*11/10/21 18:23*	*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			11/15/21 14:07	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			11/11/21 15:24	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		11/11/21 08:21	11/11/21 17:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/11/21 08:21	11/11/21 17:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/11/21 08:21	11/11/21 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/11/21 08:21*	*11/11/21 17:51*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/11/21 08:21*	*11/11/21 17:51*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Client Sample ID: SS04
Date Collected: 11/05/21 15:58
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Lab Sample ID: 890-1546-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11900		101		mg/Kg			11/14/21 01:49	20

Surrogate Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)									
		BFB1	DFBZ1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
880-8100-A-21-A MS	Matrix Spike	113	102								
880-8100-A-21-B MSD	Matrix Spike Duplicate	117	104								
890-1546-1	SS01	123	90								
890-1546-2	SS02	120	106								
890-1546-3	SS03	107	99								
890-1546-4	SS04	110	98								
LCS 880-11824/1-A	Lab Control Sample	112	102								
LCSD 880-11824/2-A	Lab Control Sample Dup	108	101								
MB 880-11824/5-A	Method Blank	62 S1-	111								

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)								
890-1546-1	SS01	93	77								
890-1546-2	SS02	104	108								
890-1546-3	SS03	100	104								
890-1546-4	SS04	102	105								
890-1555-A-1-D MS	Matrix Spike	100	99								
LCS 880-11990/2-A	Lab Control Sample	84	93								
LCSD 880-11990/3-A	Lab Control Sample Dup	83	86								
MB 880-11990/1-A	Method Blank	106	127								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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										
890-1555-A-1-E MSD	Matrix Spike Duplicate										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11824/5-A
Matrix: Solid
Analysis Batch: 11888

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11824

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 12:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 12:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 12:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/10/21 09:30	11/10/21 12:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/10/21 09:30	11/10/21 12:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/10/21 09:30	11/10/21 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*11/10/21 09:30*	*11/10/21 12:41*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/10/21 09:30*	*11/10/21 12:41*	*1*

Lab Sample ID: LCS 880-11824/1-A
Matrix: Solid
Analysis Batch: 11888

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11824

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09671		mg/Kg		97	70 - 130		
Toluene			0.100	0.1024		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1078		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2145		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1036		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-11824/2-A
Matrix: Solid
Analysis Batch: 11888

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11824

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09531		mg/Kg		95	70 - 130	1	35
Toluene			0.100	0.1010		mg/Kg		101	70 - 130	1	35
Ethylbenzene			0.100	0.1067		mg/Kg		107	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2085		mg/Kg		104	70 - 130	3	35
o-Xylene			0.100	0.1005		mg/Kg		100	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-8100-A-21-A MS
Matrix: Solid
Analysis Batch: 11888

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.0998	0.08923		mg/Kg		89	70 - 130		
Toluene	<0.00200	U	0.0998	0.09624		mg/Kg		95	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

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

Lab Sample ID: 880-8100-A-21-A MS
Matrix: Solid
Analysis Batch: 11888

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0998	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1997		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09858		mg/Kg		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-8100-A-21-B MSD
Matrix: Solid
Analysis Batch: 11888

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11824

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	0.08626		mg/Kg		86	70 - 130	3	35
Toluene	<0.00200	U	0.100	0.09392		mg/Kg		93	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.100	0.09454		mg/Kg		95	70 - 130	8	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1841		mg/Kg		91	70 - 130	8	35
o-Xylene	<0.00200	U	0.100	0.08863		mg/Kg		88	70 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-11990/1-A
Matrix: Solid
Analysis Batch: 11992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11990

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		11/11/21 08:21	11/11/21 09:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/11/21 08:21	11/11/21 09:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/11/21 08:21	11/11/21 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/11/21 08:21*	*11/11/21 09:47*	*1*
o-Terphenyl	*127*		*70 - 130*	*11/11/21 08:21*	*11/11/21 09:47*	*1*

Lab Sample ID: LCS 880-11990/2-A
Matrix: Solid
Analysis Batch: 11992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11990

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	895.5		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	900.5		mg/Kg		90	70 - 130

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1546-1
Project/Site: NoCaster 19 Federal 004h SDG: 31402909.16

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

Lab Sample ID: LCS 880-11990/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 11992 **Prep Batch: 11990**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-11990/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 11992 **Prep Batch: 11990**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	918.9		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	870.9		mg/Kg		87	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 890-1555-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 11992 **Prep Batch: 11990**

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	997	1100		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	997	793.8		mg/Kg		77	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-1555-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 11992 **Prep Batch: 11990**

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	1148		mg/Kg					
Diesel Range Organics (Over C10-C28)	<50.0	U	998	849.1		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane			
o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12129/1-A
Matrix: Solid
Analysis Batch: 12200

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			11/14/21 01:05	1

Lab Sample ID: LCS 880-12129/2-A
Matrix: Solid
Analysis Batch: 12200

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	247.4		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-12129/3-A
Matrix: Solid
Analysis Batch: 12200

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	249.3		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-8171-A-1-G MS
Matrix: Solid
Analysis Batch: 12200

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	85.1		250	321.0		mg/Kg		94	90 - 110		

Lab Sample ID: 880-8171-A-1-H MSD
Matrix: Solid
Analysis Batch: 12200

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	85.1		250	318.3		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1546-1
Project/Site: NoCaster 19 Federal 004h SDG: 31402909.16

GC VOA

Prep Batch: 11824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	5035	
890-1546-2	SS02	Total/NA	Solid	5035	
890-1546-3	SS03	Total/NA	Solid	5035	
890-1546-4	SS04	Total/NA	Solid	5035	
MB 880-11824/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11824/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11824/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8100-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
880-8100-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8021B	11824
890-1546-2	SS02	Total/NA	Solid	8021B	11824
890-1546-3	SS03	Total/NA	Solid	8021B	11824
890-1546-4	SS04	Total/NA	Solid	8021B	11824
MB 880-11824/5-A	Method Blank	Total/NA	Solid	8021B	11824
LCS 880-11824/1-A	Lab Control Sample	Total/NA	Solid	8021B	11824
LCSD 880-11824/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11824
880-8100-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	11824
880-8100-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11824

Analysis Batch: 12338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	Total BTEX	
890-1546-2	SS02	Total/NA	Solid	Total BTEX	
890-1546-3	SS03	Total/NA	Solid	Total BTEX	
890-1546-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8015NM Prep	
890-1546-2	SS02	Total/NA	Solid	8015NM Prep	
890-1546-3	SS03	Total/NA	Solid	8015NM Prep	
890-1546-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-11990/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11990/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11990/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1555-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1555-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8015B NM	11990
890-1546-2	SS02	Total/NA	Solid	8015B NM	11990
890-1546-3	SS03	Total/NA	Solid	8015B NM	11990
890-1546-4	SS04	Total/NA	Solid	8015B NM	11990
MB 880-11990/1-A	Method Blank	Total/NA	Solid	8015B NM	11990
LCS 880-11990/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11990

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1546-1
Project/Site: NoCaster 19 Federal 004h SDG: 31402909.16

GC Semi VOA (Continued)

Analysis Batch: 11992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-11990/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11990
890-1555-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	11990
890-1555-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11990

Analysis Batch: 12045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8015 NM	
890-1546-2	SS02	Total/NA	Solid	8015 NM	
890-1546-3	SS03	Total/NA	Solid	8015 NM	
890-1546-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Soluble	Solid	DI Leach	
890-1546-2	SS02	Soluble	Solid	DI Leach	
890-1546-3	SS03	Soluble	Solid	DI Leach	
890-1546-4	SS04	Soluble	Solid	DI Leach	
MB 880-12129/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12129/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12129/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8171-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
880-8171-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 12200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Soluble	Solid	300.0	12129
890-1546-2	SS02	Soluble	Solid	300.0	12129
890-1546-3	SS03	Soluble	Solid	300.0	12129
890-1546-4	SS04	Soluble	Solid	300.0	12129
MB 880-12129/1-A	Method Blank	Soluble	Solid	300.0	12129
LCS 880-12129/2-A	Lab Control Sample	Soluble	Solid	300.0	12129
LCSD 880-12129/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12129
880-8171-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	12129
880-8171-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12129

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Client Sample ID: SS01

Date Collected: 11/05/21 15:53
Date Received: 11/08/21 16:15

Lab Sample ID: 890-1546-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 15:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			12200	11/14/21 01:34	CH	XEN MID

Client Sample ID: SS02

Date Collected: 11/05/21 15:55
Date Received: 11/08/21 16:15

Lab Sample ID: 890-1546-2
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			4.96 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 16:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 17:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			12200	11/14/21 01:39	CH	XEN MID

Client Sample ID: SS03

Date Collected: 11/05/21 15:57
Date Received: 11/08/21 16:15

Lab Sample ID: 890-1546-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 18:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		10			12200	11/14/21 01:44	CH	XEN MID

Client Sample ID: SS04

Date Collected: 11/05/21 15:58
Date Received: 11/08/21 16:15

Lab Sample ID: 890-1546-4
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			4.98 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 18:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Client Sample ID: SS04
Date Collected: 11/05/21 15:58
Date Received: 11/08/21 16:15

Lab Sample ID: 890-1546-4
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			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 17:51	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		20			12200	11/14/21 01:49	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.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

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.
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

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: NoCaster 19 Federal 004h

Job ID: 890-1546-1
SDG: 31402909.16

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1546-1	SS01	Solid	11/05/21 15:53	11/08/21 16:15	0.5 - .
890-1546-2	SS02	Solid	11/05/21 15:55	11/08/21 16:15	0.5
890-1546-3	SS03	Solid	11/05/21 15:57	11/08/21 16:15	0.5
890-1546-4	SS04	Solid	11/05/21 15:58	11/08/21 16:15	0.5

Chain of Custody

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)

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 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 ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NoCaster 19 Federal 004H	Turn Around	
Project Number:	31402909.16	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.6/1.4	Thermometer ID	TNM_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:		

ANALYSIS REQUEST

890-1546 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
SS01	S	11/05/21	15;53	0.5'	1	X	X	X	Discrete
SS02	S	11/05/21	15:55	0.5'	1	X	X	X	Discrete
SS03	S	11/05/21	15:57	0.5'	1	X	X	X	Discrete
SS04	S	11/05/21	15:58	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 pbenner		11.8.21 1615	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

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-500 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 #: 890-1546-1
Address: 1211 W Florida Ave	Due Date Requested: 11/12/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: NoCaster 19 Federal 004h	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/8015NM_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:		X	X						X	
SS01 (890-1546-1)	11/5/21	15 53 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-1546-2)	11/5/21	15 55 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-1546-3)	11/5/21	15 57 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-1546-4)	11/5/21	15 58 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: Clue Ortiz 11.9.21	Date/Time	Company	Received by: Kramer	Date/Time: 11.10.21	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time: 1115	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: 3.9/3.9

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1546-1
SDG Number: 31402909.16

Login Number: 1546
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: 890-1546-1
SDG Number: 31402909.16

Login Number: 1546
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/10/21 11:22 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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1960-1
Laboratory Sample Delivery Group: 31402309.16
Client Project/Site: NoCaster 19

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/28/2022 7:37:43 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: NoCaster 19

Laboratory Job ID: 890-1960-1
SDG: 31402309.16

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1960-1
Project/Site: NoCaster 19 SDG: 31402309.16

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Job ID: 890-1960-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1960-1

Receipt
The samples were received on 2/16/2022 11:07 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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-19724 and analytical batch 880-20289 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 RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-19826 and analytical batch 880-19863 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19826 and analytical batch 880-19863 were outside control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-19826/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-19794 and analytical batch 880-19891 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-19794 and analytical batch 880-19891 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: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH01

Date Collected: 02/15/22 11:42
Date Received: 02/16/22 11:07
Sample Depth: 1

Lab Sample ID: 890-1960-1
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		02/18/22 09:30	02/25/22 22:38	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/25/22 22:38	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/25/22 22:38	1
m-Xylene & p-Xylene	<0.00397	U F1	0.00397		mg/Kg		02/18/22 09:30	02/25/22 22:38	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/25/22 22:38	1
Xylenes, Total	<0.00397	U F1	0.00397		mg/Kg		02/18/22 09:30	02/25/22 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/18/22 09:30*	*02/25/22 22:38*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/18/22 09:30*	*02/25/22 22:38*	*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			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**113**		50.0		mg/Kg			02/28/22 20:00	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 F1	50.0		mg/Kg		02/18/22 09:15	02/21/22 11:42	1
Diesel Range Organics (Over C10-C28)	**113**	***1 F1**	50.0		mg/Kg		02/18/22 09:15	02/21/22 11:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/18/22 09:15*	*02/21/22 11:42*	*1*
o-Terphenyl	*113*		*70 - 130*	*02/18/22 09:15*	*02/21/22 11:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**960**		25.0		mg/Kg			02/21/22 21:54	5

Client Sample ID: BH01A

Date Collected: 02/15/22 11:54
Date Received: 02/16/22 11:07
Sample Depth: 3

Lab Sample ID: 890-1960-2
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		02/18/22 09:30	02/25/22 22:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/18/22 09:30	02/25/22 22:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/18/22 09:30	02/25/22 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/18/22 09:30*	*02/25/22 22:59*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH01A

Lab Sample ID: 890-1960-2
Matrix: Solid
Date Collected: 02/15/22 11:54
Date Received: 02/16/22 11:07
Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/18/22 09:30*	*02/25/22 22:59*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 12:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 12:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*103*		*70 - 130*	*02/18/22 09:15*	*02/21/22 12:44*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/18/22 09:15*	*02/21/22 12:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1430**		25.1	mg/Kg			02/21/22 22:13	5

Client Sample ID: BH01B

Lab Sample ID: 890-1960-3
Matrix: Solid
Date Collected: 02/15/22 12:00
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/25/22 23:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/25/22 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*02/18/22 09:30*	*02/25/22 23:19*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/18/22 09:30*	*02/25/22 23:19*	*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			02/28/22 18:47	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			02/28/22 20:00	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH01B

Lab Sample ID: 890-1960-3
Matrix: Solid
Date Collected: 02/15/22 12:00
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:15	02/21/22 13:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/18/22 09:15	02/21/22 13:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 09:15	02/21/22 13:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*02/18/22 09:15*	*02/21/22 13:04*	*1*
o-Terphenyl	*110*		*70 - 130*	*02/18/22 09:15*	*02/21/22 13:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**761**		4.98		mg/Kg			02/21/22 22:19	1

Client Sample ID: BH02

Lab Sample ID: 890-1960-4
Matrix: Solid
Date Collected: 02/15/22 12:09
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/25/22 23:40	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/25/22 23:40	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/25/22 23:40	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/18/22 09:30	02/25/22 23:40	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/25/22 23:40	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/18/22 09:30	02/25/22 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/18/22 09:30*	*02/25/22 23:40*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/18/22 09:30*	*02/25/22 23:40*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 13:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/18/22 09:15	02/21/22 13:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 09:15	02/21/22 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*02/18/22 09:15*	*02/21/22 13:25*	*1*
o-Terphenyl	*109*		*70 - 130*	*02/18/22 09:15*	*02/21/22 13:25*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH02

Lab Sample ID: 890-1960-4
Matrix: Solid
Date Collected: 02/15/22 12:09
Date Received: 02/16/22 11:07
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.5		4.96		mg/Kg			02/21/22 22:38	1

Client Sample ID: BH02A

Lab Sample ID: 890-1960-5
Matrix: Solid
Date Collected: 02/15/22 12:16
Date Received: 02/16/22 11:07
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:00	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/18/22 09:30	02/26/22 00:00	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/18/22 09:30	02/26/22 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/18/22 09:30*	*02/26/22 00:00*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 09:30*	*02/26/22 00:00*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 13:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 13:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*02/18/22 09:15*	*02/21/22 13:45*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/18/22 09:15*	*02/21/22 13:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.1		5.05		mg/Kg			02/21/22 22:44	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH02B

Lab Sample ID: 890-1960-6
Matrix: Solid
Date Collected: 02/15/22 12:21
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 00:21	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:21	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/18/22 09:30	02/26/22 00:21	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/18/22 09:30	02/26/22 00:21	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/18/22 09:30	02/26/22 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/18/22 09:30*	*02/26/22 00:21*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/18/22 09:30*	*02/26/22 00:21*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 14:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*02/18/22 09:15*	*02/21/22 14:06*	*1*
o-Terphenyl	*111*		*70 - 130*	*02/18/22 09:15*	*02/21/22 14:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.4**		4.98		mg/Kg			02/21/22 22:51	1

Client Sample ID: BH03

Lab Sample ID: 890-1960-7
Matrix: Solid
Date Collected: 02/15/22 12:29
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 00:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 00:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 00:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 00:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 00:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/18/22 09:30*	*02/26/22 00:42*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH03

Lab Sample ID: 890-1960-7
Matrix: Solid
Date Collected: 02/15/22 12:29
Date Received: 02/16/22 11:07
Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 09:30*	*02/26/22 00:42*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 14:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 14:26	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*110*		*70 - 130*	*02/18/22 09:15*	*02/21/22 14:26*	*1*
o-Terphenyl	*113*		*70 - 130*	*02/18/22 09:15*	*02/21/22 14:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**689**		5.05	mg/Kg			02/21/22 22:57	1

Client Sample ID: BH03A

Lab Sample ID: 890-1960-8
Matrix: Solid
Date Collected: 02/15/22 12:34
Date Received: 02/16/22 11:07
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 01:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/18/22 09:30*	*02/26/22 01:02*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/18/22 09:30*	*02/26/22 01:02*	*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			02/28/22 18:47	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			02/28/22 20:00	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH03A

Lab Sample ID: 890-1960-8
Matrix: Solid
Date Collected: 02/15/22 12:34
Date Received: 02/16/22 11:07
Sample Depth: 3

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		02/18/22 09:15	02/21/22 14:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 14:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*02/18/22 09:15*	*02/21/22 14:47*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/18/22 09:15*	*02/21/22 14:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**234**		4.97		mg/Kg			02/21/22 23:03	1

Client Sample ID: BH03B

Lab Sample ID: 890-1960-9
Matrix: Solid
Date Collected: 02/15/22 12:39
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 01:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 01:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 01:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 01:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 01:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/18/22 09:30*	*02/26/22 01:23*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 09:30*	*02/26/22 01:23*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 15:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 15:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*02/18/22 09:15*	*02/21/22 15:08*	*1*
o-Terphenyl	*123*		*70 - 130*	*02/18/22 09:15*	*02/21/22 15:08*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH03B
Lab Sample ID: 890-1960-9

Date Collected: 02/15/22 12:39
Matrix: Solid
Date Received: 02/16/22 11:07
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.0		4.95		mg/Kg			02/21/22 23:10	1

Client Sample ID: BH04
Lab Sample ID: 890-1960-10

Date Collected: 02/15/22 12:51
Matrix: Solid
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 01:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 01:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 01:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/18/22 09:30	02/26/22 01:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 01:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/18/22 09:30	02/26/22 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/18/22 09:30*	*02/26/22 01:44*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/18/22 09:30*	*02/26/22 01:44*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 15:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 15:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*02/18/22 09:15*	*02/21/22 15:28*	*1*
o-Terphenyl	*128*		*70 - 130*	*02/18/22 09:15*	*02/21/22 15:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	644		5.00		mg/Kg			02/21/22 23:16	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH04A

Lab Sample ID: 890-1960-11
Matrix: Solid
Date Collected: 02/15/22 12:57
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 03:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 03:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 03:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/18/22 09:30	02/26/22 03:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 03:08	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/18/22 09:30	02/26/22 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/18/22 09:30*	*02/26/22 03:08*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/18/22 09:30*	*02/26/22 03:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 16:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/18/22 09:15	02/21/22 16:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 09:15	02/21/22 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/18/22 09:15*	*02/21/22 16:09*	*1*
o-Terphenyl	*114*		*70 - 130*	*02/18/22 09:15*	*02/21/22 16:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		5.01		mg/Kg			02/22/22 10:07	1

Client Sample ID: BH04B

Lab Sample ID: 890-1960-12
Matrix: Solid
Date Collected: 02/15/22 13:01
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 03:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/18/22 09:30	02/26/22 03:28	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/18/22 09:30	02/26/22 03:28	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/18/22 09:30	02/26/22 03:28	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/18/22 09:30	02/26/22 03:28	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/18/22 09:30	02/26/22 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/18/22 09:30*	*02/26/22 03:28*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH04B
Date Collected: 02/15/22 13:01
Date Received: 02/16/22 11:07
Sample Depth: 5

Lab Sample ID: 890-1960-12
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/18/22 09:30*	*02/26/22 03:28*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 16:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:30	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*02/18/22 09:15*	*02/21/22 16:30*	*1*
o-Terphenyl	*107*		*70 - 130*	*02/18/22 09:15*	*02/21/22 16:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.9**		4.97	mg/Kg			02/22/22 10:13	1

Client Sample ID: BH05
Date Collected: 02/15/22 15:57
Date Received: 02/16/22 11:07
Sample Depth: 1

Lab Sample ID: 890-1960-13
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		02/18/22 09:30	02/26/22 03:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/18/22 09:30*	*02/26/22 03:49*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 09:30*	*02/26/22 03:49*	*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			02/28/22 18:47	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			02/28/22 20:00	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH05

Lab Sample ID: 890-1960-13
Matrix: Solid
Date Collected: 02/15/22 15:57
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:15	02/21/22 16:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 16:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*02/18/22 09:15*	*02/21/22 16:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*02/18/22 09:15*	*02/21/22 16:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**531**		4.96		mg/Kg			02/22/22 10:20	1

Client Sample ID: BH05A

Lab Sample ID: 890-1960-14
Matrix: Solid
Date Collected: 02/15/22 16:01
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 04:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 04:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 04:10	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/18/22 09:30	02/26/22 04:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 04:10	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/18/22 09:30	02/26/22 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/18/22 09:30*	*02/26/22 04:10*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/18/22 09:30*	*02/26/22 04:10*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 17:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 17:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/18/22 09:15*	*02/21/22 17:11*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/18/22 09:15*	*02/21/22 17:11*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH05A

Lab Sample ID: 890-1960-14
Matrix: Solid
Date Collected: 02/15/22 16:01
Date Received: 02/16/22 11:07
Sample Depth: 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.1	F1	5.00		mg/Kg			02/22/22 10:26	1

Client Sample ID: BH05B

Lab Sample ID: 890-1960-15
Matrix: Solid
Date Collected: 02/15/22 16:04
Date Received: 02/16/22 11:07
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/18/22 09:30	02/26/22 04:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/18/22 09:30	02/26/22 04:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/18/22 09:30	02/26/22 04:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/18/22 09:30	02/26/22 04:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/18/22 09:30	02/26/22 04:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/18/22 09:30	02/26/22 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/18/22 09:30*	*02/26/22 04:30*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/18/22 09:30*	*02/26/22 04:30*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 17:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 17:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/18/22 09:15*	*02/21/22 17:32*	*1*
o-Terphenyl	*99*		*70 - 130*	*02/18/22 09:15*	*02/21/22 17:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.9		5.02		mg/Kg			02/22/22 10:45	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH06

Lab Sample ID: 890-1960-16
Matrix: Solid
Date Collected: 02/15/22 15:16
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 04:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 04:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 04:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 04:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 04:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*02/18/22 09:30*	*02/26/22 04:51*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 09:30*	*02/26/22 04:51*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 17:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 17:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*02/18/22 09:15*	*02/21/22 17:52*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/18/22 09:15*	*02/21/22 17:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**700**		24.9		mg/Kg			02/22/22 10:51	5

Client Sample ID: BH06A

Lab Sample ID: 890-1960-17
Matrix: Solid
Date Collected: 02/15/22 15:25
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 05:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/18/22 09:30	02/26/22 05:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/18/22 09:30	02/26/22 05:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/18/22 09:30	02/26/22 05:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/18/22 09:30	02/26/22 05:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/18/22 09:30	02/26/22 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/18/22 09:30*	*02/26/22 05:11*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH06A

Lab Sample ID: 890-1960-17
Matrix: Solid
Date Collected: 02/15/22 15:25
Date Received: 02/16/22 11:07
Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/18/22 09:30*	*02/26/22 05:11*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 18:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:12	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*98*		*70 - 130*	*02/18/22 09:15*	*02/21/22 18:12*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/18/22 09:15*	*02/21/22 18:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**833**		4.96	mg/Kg			02/22/22 11:10	1

Client Sample ID: BH06B

Lab Sample ID: 890-1960-18
Matrix: Solid
Date Collected: 02/15/22 15:30
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 05:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/18/22 09:30	02/26/22 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/18/22 09:30*	*02/26/22 05:32*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/18/22 09:30*	*02/26/22 05:32*	*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			02/28/22 18:47	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			02/28/22 20:00	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH06B

Lab Sample ID: 890-1960-18
Matrix: Solid
Date Collected: 02/15/22 15:30
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:15	02/21/22 18:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/18/22 09:15	02/21/22 18:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 09:15	02/21/22 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*02/18/22 09:15*	*02/21/22 18:33*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/18/22 09:15*	*02/21/22 18:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**495**		5.05		mg/Kg			02/22/22 11:17	1

Client Sample ID: BH07

Lab Sample ID: 890-1960-19
Matrix: Solid
Date Collected: 02/15/22 15:36
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 05:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 05:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 05:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/18/22 09:30	02/26/22 05:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/26/22 05:52	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/18/22 09:30	02/26/22 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/18/22 09:30*	*02/26/22 05:52*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 09:30*	*02/26/22 05:52*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 18:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 18:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*02/18/22 09:15*	*02/21/22 18:53*	*1*
o-Terphenyl	*111*		*70 - 130*	*02/18/22 09:15*	*02/21/22 18:53*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH07

Lab Sample ID: 890-1960-19
Matrix: Solid
Date Collected: 02/15/22 15:36
Date Received: 02/16/22 11:07
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	392		4.98		mg/Kg			02/22/22 11:23	1

Client Sample ID: BH07A

Lab Sample ID: 890-1960-20
Matrix: Solid
Date Collected: 02/15/22 15:41
Date Received: 02/16/22 11:07
Sample Depth: 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		02/18/22 09:30	02/26/22 06:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 06:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 06:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 06:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/18/22 09:30	02/26/22 06:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/18/22 09:30	02/26/22 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/18/22 09:30*	*02/26/22 06:13*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/18/22 09:30*	*02/26/22 06:13*	*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			02/28/22 18:47	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			02/28/22 20:00	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		02/18/22 09:15	02/21/22 19:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 09:15	02/21/22 19:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*02/18/22 09:15*	*02/21/22 19:13*	*1*
o-Terphenyl	*109*		*70 - 130*	*02/18/22 09:15*	*02/21/22 19:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.1		5.05		mg/Kg			02/22/22 11:29	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH07B

Lab Sample ID: 890-1960-21
Matrix: Solid
Date Collected: 02/15/22 15:45
Date Received: 02/16/22 11:07
Sample Depth: 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		02/24/22 09:00	02/25/22 16:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/24/22 09:00	02/25/22 16:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/24/22 09:00	02/25/22 16:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/24/22 09:00	02/25/22 16:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/24/22 09:00	02/25/22 16:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/24/22 09:00	02/25/22 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/24/22 09:00*	*02/25/22 16:19*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 09:00*	*02/25/22 16:19*	*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			02/25/22 20:45	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			02/21/22 19:16	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 F1 *1	50.0		mg/Kg		02/18/22 14:35	02/19/22 23:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *1	50.0		mg/Kg		02/18/22 14:35	02/19/22 23:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 14:35	02/19/22 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/18/22 14:35*	*02/19/22 23:11*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/18/22 14:35*	*02/19/22 23:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.1**		4.97		mg/Kg			02/22/22 11:36	1

Client Sample ID: BH08

Lab Sample ID: 890-1960-22
Matrix: Solid
Date Collected: 02/15/22 16:12
Date Received: 02/16/22 11:07
Sample Depth: 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		02/24/22 09:00	02/25/22 16:39	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:00	02/25/22 16:39	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:00	02/25/22 16:39	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/24/22 09:00	02/25/22 16:39	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:00	02/25/22 16:39	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/24/22 09:00	02/25/22 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/24/22 09:00*	*02/25/22 16:39*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH08

Lab Sample ID: 890-1960-22
Matrix: Solid
Date Collected: 02/15/22 16:12
Date Received: 02/16/22 11:07
Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/24/22 09:00*	*02/25/22 16:39*	*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			02/25/22 20:45	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			02/21/22 19:16	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 *1	50.0		mg/Kg		02/18/22 14:35	02/20/22 00:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/18/22 14:35	02/20/22 00:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 14:35	02/20/22 00:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*79*		*70 - 130*	*02/18/22 14:35*	*02/20/22 00:12*	*1*
o-Terphenyl	*77*		*70 - 130*	*02/18/22 14:35*	*02/20/22 00:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.0**		4.95		mg/Kg			02/22/22 11:42	1

Client Sample ID: BH08A

Lab Sample ID: 890-1960-23
Matrix: Solid
Date Collected: 02/15/22 16:16
Date Received: 02/16/22 11:07
Sample Depth: 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		02/24/22 09:00	02/25/22 17:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 17:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 17:00	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/24/22 09:00	02/25/22 17:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 17:00	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/24/22 09:00	02/25/22 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*02/24/22 09:00*	*02/25/22 17:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*02/24/22 09:00*	*02/25/22 17:00*	*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			02/25/22 20:45	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			02/21/22 19:16	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH08A

Date Collected: 02/15/22 16:16
Date Received: 02/16/22 11:07
Sample Depth: 2

Lab Sample ID: 890-1960-23

Matrix: Solid

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 *1	49.9		mg/Kg		02/18/22 14:35	02/20/22 00:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/18/22 14:35	02/20/22 00:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 14:35	02/20/22 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/18/22 14:35*	*02/20/22 00:33*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/18/22 14:35*	*02/20/22 00:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.1**		5.00		mg/Kg			02/22/22 11:48	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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)
880-11356-A-1-E MS	Matrix Spike	92	111
880-11356-A-1-F MSD	Matrix Spike Duplicate	93	106
890-1960-1	BH01	100	98
890-1960-1 MS	BH01	102	100
890-1960-1 MSD	BH01	102	100
890-1960-2	BH01A	108	95
890-1960-3	BH01B	102	98
890-1960-4	BH02	104	98
890-1960-5	BH02A	103	97
890-1960-6	BH02B	104	98
890-1960-7	BH03	103	97
890-1960-8	BH03A	101	96
890-1960-9	BH03B	103	97
890-1960-10	BH04	104	98
890-1960-11	BH04A	106	93
890-1960-12	BH04B	107	92
890-1960-13	BH05	103	97
890-1960-14	BH05A	114	93
890-1960-15	BH05B	105	95
890-1960-16	BH06	102	97
890-1960-17	BH06A	103	99
890-1960-18	BH06B	113	95
890-1960-19	BH07	101	97
890-1960-20	BH07A	106	98
890-1960-21	BH07B	112	95
890-1960-22	BH08	115	93
890-1960-23	BH08A	109	91
LCS 880-19724/1-A	Lab Control Sample	103	101
LCS 880-19725/1-A	Lab Control Sample	86	107
LCSD 880-19724/2-A	Lab Control Sample Dup	101	90
LCSD 880-19725/2-A	Lab Control Sample Dup	85	110
MB 880-19724/5-A	Method Blank	99	96
MB 880-19725/5-A	Method Blank	109	102
MB 880-20196/5-A	Method Blank	95	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1960-1	BH01	109	113
890-1960-1 MS	BH01	104	96
890-1960-1 MSD	BH01	100	92
890-1960-2	BH01A	103	106
890-1960-3	BH01B	105	110

Surrogate Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-1960-4	BH02	107	109										
890-1960-5	BH02A	94	97										
890-1960-6	BH02B	104	111										
890-1960-7	BH03	110	113										
890-1960-8	BH03A	111	115										
890-1960-9	BH03B	118	123										
890-1960-10	BH04	122	128										
890-1960-11	BH04A	109	114										
890-1960-12	BH04B	103	107										
890-1960-13	BH05	105	110										
890-1960-14	BH05A	101	104										
890-1960-15	BH05B	98	99										
890-1960-16	BH06	110	115										
890-1960-17	BH06A	98	100										
890-1960-18	BH06B	105	106										
890-1960-19	BH07	106	111										
890-1960-20	BH07A	107	109										
890-1960-21	BH07B	78	80										
890-1960-21 MS	BH07B	79	83										
890-1960-21 MSD	BH07B	90	96										
890-1960-22	BH08	79	77										
890-1960-23	BH08A	95	94										
LCS 880-19794/2-A	Lab Control Sample	103	109										
LCSD 880-19794/3-A	Lab Control Sample Dup	102	111										
MB 880-19794/1-A	Method Blank	105	113										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO2	OTPH2										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
LCS 880-19826/2-A	Lab Control Sample	126	134 S1+										
LCSD 880-19826/3-A	Lab Control Sample Dup	94	103										
MB 880-19826/1-A	Method Blank	96	100										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19724/5-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19724

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/18/22 09:30	02/25/22 22:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 09:30	02/25/22 22:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/18/22 09:30	02/25/22 22:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/18/22 09:30*	*02/25/22 22:16*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/18/22 09:30*	*02/25/22 22:16*	*1*

Lab Sample ID: LCS 880-19724/1-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19724

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1109		mg/Kg		111	70 - 130		
Toluene			0.100	0.1068		mg/Kg		107	70 - 130		
Ethylbenzene			0.100	0.1049		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2171		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1069		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-19724/2-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19724

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1024		mg/Kg		102	70 - 130	8	35
Toluene			0.100	0.1011		mg/Kg		101	70 - 130	6	35
Ethylbenzene			0.100	0.09904		mg/Kg		99	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2050		mg/Kg		103	70 - 130	6	35
o-Xylene			0.100	0.1005		mg/Kg		101	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 890-1960-1 MS
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19724

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U	0.100	0.08339		mg/Kg		83	70 - 130		
Toluene	<0.00198	U	0.100	0.07764		mg/Kg		77	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Lab Sample ID: 890-1960-1 MS
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19724

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U	0.100	0.07096		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1	0.201	0.1153	F1	mg/Kg		57	70 - 130
o-Xylene	<0.00198	U	0.100	0.07878		mg/Kg		78	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-1960-1 MSD
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19724

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.08074		mg/Kg		81	70 - 130	3	35
Toluene	<0.00198	U	0.100	0.07557		mg/Kg		75	70 - 130	3	35
Ethylbenzene	<0.00198	U	0.100	0.07013		mg/Kg		70	70 - 130	1	35
m-Xylene & p-Xylene	<0.00397	U F1	0.200	0.1195	F1	mg/Kg		60	70 - 130	4	35
o-Xylene	<0.00198	U	0.100	0.07891		mg/Kg		79	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 880-19725/5-A
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19725

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 10:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 10:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 10:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 09:00	02/25/22 10:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:00	02/25/22 10:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 09:00	02/25/22 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*02/24/22 09:00*	*02/25/22 10:25*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/24/22 09:00*	*02/25/22 10:25*	*1*

Lab Sample ID: LCS 880-19725/1-A
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19725

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.1084		mg/Kg		108	70 - 130
Toluene			0.100	0.08952		mg/Kg		90	70 - 130
Ethylbenzene			0.100	0.08898		mg/Kg		89	70 - 130
m-Xylene & p-Xylene			0.200	0.1813		mg/Kg		91	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Lab Sample ID: LCS 880-19725/1-A
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19725

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.08954		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-19725/2-A
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19725

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1085		mg/Kg		108	70 - 130	0	35
Toluene			0.100	0.08803		mg/Kg		88	70 - 130	2	35
Ethylbenzene			0.100	0.08742		mg/Kg		87	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1788		mg/Kg		89	70 - 130	1	35
o-Xylene			0.100	0.08779		mg/Kg		88	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-11356-A-1-E MS
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19725

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0990	0.1104		mg/Kg		112	70 - 130		
Toluene	<0.00199	U	0.0990	0.09183		mg/Kg		92	70 - 130		
Ethylbenzene	0.00258		0.0990	0.09203		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1885		mg/Kg		93	70 - 130		
o-Xylene	0.00237		0.0990	0.09318		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-11356-A-1-F MSD
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0992	0.1074		mg/Kg		108	70 - 130	3	35
Toluene	<0.00199	U	0.0992	0.09362		mg/Kg		93	70 - 130	2	35
Ethylbenzene	0.00258		0.0992	0.09517		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1978		mg/Kg		98	70 - 130	5	35
o-Xylene	0.00237		0.0992	0.09806		mg/Kg		96	70 - 130	5	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Lab Sample ID: 880-11356-A-1-F MSD
Matrix: Solid
Analysis Batch: 20287

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19725

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: MB 880-20196/5-A
Matrix: Solid
Analysis Batch: 20289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 10:19	02/25/22 11:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 10:19	02/25/22 11:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	02/24/22 10:19	02/25/22 11:22	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/24/22 10:19	02/25/22 11:22	1

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

Lab Sample ID: MB 880-19794/1-A
Matrix: Solid
Analysis Batch: 19891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19794

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		02/18/22 09:15	02/21/22 10:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 10:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 09:15	02/21/22 10:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/18/22 09:15	02/21/22 10:40	1
o-Terphenyl	113		70 - 130	02/18/22 09:15	02/21/22 10:40	1

Lab Sample ID: LCS 880-19794/2-A
Matrix: Solid
Analysis Batch: 19891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19794

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	818.6		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1004		mg/Kg		100	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	109		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Lab Sample ID: LCSD 880-19794/3-A
Matrix: Solid
Analysis Batch: 19891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19794

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	997.8		mg/Kg		100	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	1271	*1	mg/Kg		127	70 - 130	23	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Lab Sample ID: 890-1960-1 MS
Matrix: Solid
Analysis Batch: 19891

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19794

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 F1	1000	1833	F1	mg/Kg		180	70 - 130
Diesel Range Organics (Over C10-C28)	113	*1 F1	1000	1456	F1	mg/Kg		134	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: 890-1960-1 MSD
Matrix: Solid
Analysis Batch: 19891

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19794

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 F1	998	1562	F1	mg/Kg		154	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	113	*1 F1	998	1407		mg/Kg		130	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: MB 880-19826/1-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19826

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		02/18/22 14:35	02/19/22 22:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/18/22 14:35	02/19/22 22:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 14:35	02/19/22 22:04	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Lab Sample ID: MB 880-19826/1-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19826

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	02/18/22 14:35	02/19/22 22:04	1
o-Terphenyl	100		70 - 130	02/18/22 14:35	02/19/22 22:04	1

Lab Sample ID: LCS 880-19826/2-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19826

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1174		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1072		mg/Kg		107	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	134	S1+	70 - 130

Lab Sample ID: LCSD 880-19826/3-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19826

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	904.3	*1	mg/Kg		90	70 - 130	26	20
Diesel Range Organics (Over C10-C28)			1000	821.9	*1	mg/Kg		82	70 - 130	26	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-1960-21 MS
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: BH07B
Prep Type: Total/NA
Prep Batch: 19826

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 F1 *1	1000	1127		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *1	1000	1300		mg/Kg		130	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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

Lab Sample ID: 890-1960-21 MSD — **Client Sample ID: BH07B**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19863 — **Prep Batch: 19826**

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 F1 *1	998	1341	F1	mg/Kg		132	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *1	998	1497	F1	mg/Kg		150	70 - 130	14	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19804/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19937

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/21/22 19:59	1

Lab Sample ID: LCS 880-19804/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19937

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 880-19804/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19937

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.4		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 890-1960-1 MS — **Client Sample ID: BH01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	960		1250	2122		mg/Kg		93	90 - 110		

Lab Sample ID: 890-1960-1 MSD — **Client Sample ID: BH01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 19937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	960		1250	2278		mg/Kg		105	90 - 110	7	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-19805/1-A
Matrix: Solid
Analysis Batch: 19939

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/22/22 08:38	1

Lab Sample ID: LCS 880-19805/2-A
Matrix: Solid
Analysis Batch: 19939

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	255.3		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-19805/3-A
Matrix: Solid
Analysis Batch: 19939

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	261.8		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 890-1960-14 MS
Matrix: Solid
Analysis Batch: 19939

Client Sample ID: BH05A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	41.1	F1	250	246.0	F1	mg/Kg		82	90 - 110		

Lab Sample ID: 890-1960-14 MSD
Matrix: Solid
Analysis Batch: 19939

Client Sample ID: BH05A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	41.1	F1	250	297.0		mg/Kg		102	90 - 110	19	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

GC VOA

Prep Batch: 19724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	5035	
890-1960-2	BH01A	Total/NA	Solid	5035	
890-1960-3	BH01B	Total/NA	Solid	5035	
890-1960-4	BH02	Total/NA	Solid	5035	
890-1960-5	BH02A	Total/NA	Solid	5035	
890-1960-6	BH02B	Total/NA	Solid	5035	
890-1960-7	BH03	Total/NA	Solid	5035	
890-1960-8	BH03A	Total/NA	Solid	5035	
890-1960-9	BH03B	Total/NA	Solid	5035	
890-1960-10	BH04	Total/NA	Solid	5035	
890-1960-11	BH04A	Total/NA	Solid	5035	
890-1960-12	BH04B	Total/NA	Solid	5035	
890-1960-13	BH05	Total/NA	Solid	5035	
890-1960-14	BH05A	Total/NA	Solid	5035	
890-1960-15	BH05B	Total/NA	Solid	5035	
890-1960-16	BH06	Total/NA	Solid	5035	
890-1960-17	BH06A	Total/NA	Solid	5035	
890-1960-18	BH06B	Total/NA	Solid	5035	
890-1960-19	BH07	Total/NA	Solid	5035	
890-1960-20	BH07A	Total/NA	Solid	5035	
MB 880-19724/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19724/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19724/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1960-1 MS	BH01	Total/NA	Solid	5035	
890-1960-1 MSD	BH01	Total/NA	Solid	5035	

Prep Batch: 19725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	5035	
890-1960-22	BH08	Total/NA	Solid	5035	
890-1960-23	BH08A	Total/NA	Solid	5035	
MB 880-19725/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19725/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19725/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11356-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-11356-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 20196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20196/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8021B	19725
890-1960-22	BH08	Total/NA	Solid	8021B	19725
890-1960-23	BH08A	Total/NA	Solid	8021B	19725
MB 880-19725/5-A	Method Blank	Total/NA	Solid	8021B	19725
LCS 880-19725/1-A	Lab Control Sample	Total/NA	Solid	8021B	19725
LCSD 880-19725/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19725
880-11356-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	19725
880-11356-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19725

QC Association Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

GC VOA

Analysis Batch: 20289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8021B	19724
890-1960-2	BH01A	Total/NA	Solid	8021B	19724
890-1960-3	BH01B	Total/NA	Solid	8021B	19724
890-1960-4	BH02	Total/NA	Solid	8021B	19724
890-1960-5	BH02A	Total/NA	Solid	8021B	19724
890-1960-6	BH02B	Total/NA	Solid	8021B	19724
890-1960-7	BH03	Total/NA	Solid	8021B	19724
890-1960-8	BH03A	Total/NA	Solid	8021B	19724
890-1960-9	BH03B	Total/NA	Solid	8021B	19724
890-1960-10	BH04	Total/NA	Solid	8021B	19724
890-1960-11	BH04A	Total/NA	Solid	8021B	19724
890-1960-12	BH04B	Total/NA	Solid	8021B	19724
890-1960-13	BH05	Total/NA	Solid	8021B	19724
890-1960-14	BH05A	Total/NA	Solid	8021B	19724
890-1960-15	BH05B	Total/NA	Solid	8021B	19724
890-1960-16	BH06	Total/NA	Solid	8021B	19724
890-1960-17	BH06A	Total/NA	Solid	8021B	19724
890-1960-18	BH06B	Total/NA	Solid	8021B	19724
890-1960-19	BH07	Total/NA	Solid	8021B	19724
890-1960-20	BH07A	Total/NA	Solid	8021B	19724
MB 880-19724/5-A	Method Blank	Total/NA	Solid	8021B	19724
MB 880-20196/5-A	Method Blank	Total/NA	Solid	8021B	20196
LCS 880-19724/1-A	Lab Control Sample	Total/NA	Solid	8021B	19724
LCSD 880-19724/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19724
890-1960-1 MS	BH01	Total/NA	Solid	8021B	19724
890-1960-1 MSD	BH01	Total/NA	Solid	8021B	19724

Analysis Batch: 20370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	Total BTEX	
890-1960-22	BH08	Total/NA	Solid	Total BTEX	
890-1960-23	BH08A	Total/NA	Solid	Total BTEX	

Analysis Batch: 20556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	Total BTEX	
890-1960-2	BH01A	Total/NA	Solid	Total BTEX	
890-1960-3	BH01B	Total/NA	Solid	Total BTEX	
890-1960-4	BH02	Total/NA	Solid	Total BTEX	
890-1960-5	BH02A	Total/NA	Solid	Total BTEX	
890-1960-6	BH02B	Total/NA	Solid	Total BTEX	
890-1960-7	BH03	Total/NA	Solid	Total BTEX	
890-1960-8	BH03A	Total/NA	Solid	Total BTEX	
890-1960-9	BH03B	Total/NA	Solid	Total BTEX	
890-1960-10	BH04	Total/NA	Solid	Total BTEX	
890-1960-11	BH04A	Total/NA	Solid	Total BTEX	
890-1960-12	BH04B	Total/NA	Solid	Total BTEX	
890-1960-13	BH05	Total/NA	Solid	Total BTEX	
890-1960-14	BH05A	Total/NA	Solid	Total BTEX	
890-1960-15	BH05B	Total/NA	Solid	Total BTEX	
890-1960-16	BH06	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

GC VOA (Continued)

Analysis Batch: 20556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-17	BH06A	Total/NA	Solid	Total BTEX	
890-1960-18	BH06B	Total/NA	Solid	Total BTEX	
890-1960-19	BH07	Total/NA	Solid	Total BTEX	
890-1960-20	BH07A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8015NM Prep	
890-1960-2	BH01A	Total/NA	Solid	8015NM Prep	
890-1960-3	BH01B	Total/NA	Solid	8015NM Prep	
890-1960-4	BH02	Total/NA	Solid	8015NM Prep	
890-1960-5	BH02A	Total/NA	Solid	8015NM Prep	
890-1960-6	BH02B	Total/NA	Solid	8015NM Prep	
890-1960-7	BH03	Total/NA	Solid	8015NM Prep	
890-1960-8	BH03A	Total/NA	Solid	8015NM Prep	
890-1960-9	BH03B	Total/NA	Solid	8015NM Prep	
890-1960-10	BH04	Total/NA	Solid	8015NM Prep	
890-1960-11	BH04A	Total/NA	Solid	8015NM Prep	
890-1960-12	BH04B	Total/NA	Solid	8015NM Prep	
890-1960-13	BH05	Total/NA	Solid	8015NM Prep	
890-1960-14	BH05A	Total/NA	Solid	8015NM Prep	
890-1960-15	BH05B	Total/NA	Solid	8015NM Prep	
890-1960-16	BH06	Total/NA	Solid	8015NM Prep	
890-1960-17	BH06A	Total/NA	Solid	8015NM Prep	
890-1960-18	BH06B	Total/NA	Solid	8015NM Prep	
890-1960-19	BH07	Total/NA	Solid	8015NM Prep	
890-1960-20	BH07A	Total/NA	Solid	8015NM Prep	
MB 880-19794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1960-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-1960-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Prep Batch: 19826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8015NM Prep	
890-1960-22	BH08	Total/NA	Solid	8015NM Prep	
890-1960-23	BH08A	Total/NA	Solid	8015NM Prep	
MB 880-19826/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19826/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19826/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1960-21 MS	BH07B	Total/NA	Solid	8015NM Prep	
890-1960-21 MSD	BH07B	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8015B NM	19826
890-1960-22	BH08	Total/NA	Solid	8015B NM	19826
890-1960-23	BH08A	Total/NA	Solid	8015B NM	19826

QC Association Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

GC Semi VOA (Continued)

Analysis Batch: 19863 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19826/1-A	Method Blank	Total/NA	Solid	8015B NM	19826
LCS 880-19826/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19826
LCSD 880-19826/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19826
890-1960-21 MS	BH07B	Total/NA	Solid	8015B NM	19826
890-1960-21 MSD	BH07B	Total/NA	Solid	8015B NM	19826

Analysis Batch: 19891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8015B NM	19794
890-1960-2	BH01A	Total/NA	Solid	8015B NM	19794
890-1960-3	BH01B	Total/NA	Solid	8015B NM	19794
890-1960-4	BH02	Total/NA	Solid	8015B NM	19794
890-1960-5	BH02A	Total/NA	Solid	8015B NM	19794
890-1960-6	BH02B	Total/NA	Solid	8015B NM	19794
890-1960-7	BH03	Total/NA	Solid	8015B NM	19794
890-1960-8	BH03A	Total/NA	Solid	8015B NM	19794
890-1960-9	BH03B	Total/NA	Solid	8015B NM	19794
890-1960-10	BH04	Total/NA	Solid	8015B NM	19794
890-1960-11	BH04A	Total/NA	Solid	8015B NM	19794
890-1960-12	BH04B	Total/NA	Solid	8015B NM	19794
890-1960-13	BH05	Total/NA	Solid	8015B NM	19794
890-1960-14	BH05A	Total/NA	Solid	8015B NM	19794
890-1960-15	BH05B	Total/NA	Solid	8015B NM	19794
890-1960-16	BH06	Total/NA	Solid	8015B NM	19794
890-1960-17	BH06A	Total/NA	Solid	8015B NM	19794
890-1960-18	BH06B	Total/NA	Solid	8015B NM	19794
890-1960-19	BH07	Total/NA	Solid	8015B NM	19794
890-1960-20	BH07A	Total/NA	Solid	8015B NM	19794
MB 880-19794/1-A	Method Blank	Total/NA	Solid	8015B NM	19794
LCS 880-19794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19794
LCSD 880-19794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19794
890-1960-1 MS	BH01	Total/NA	Solid	8015B NM	19794
890-1960-1 MSD	BH01	Total/NA	Solid	8015B NM	19794

Analysis Batch: 19992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8015 NM	
890-1960-22	BH08	Total/NA	Solid	8015 NM	
890-1960-23	BH08A	Total/NA	Solid	8015 NM	

Analysis Batch: 20572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8015 NM	
890-1960-2	BH01A	Total/NA	Solid	8015 NM	
890-1960-3	BH01B	Total/NA	Solid	8015 NM	
890-1960-4	BH02	Total/NA	Solid	8015 NM	
890-1960-5	BH02A	Total/NA	Solid	8015 NM	
890-1960-6	BH02B	Total/NA	Solid	8015 NM	
890-1960-7	BH03	Total/NA	Solid	8015 NM	
890-1960-8	BH03A	Total/NA	Solid	8015 NM	
890-1960-9	BH03B	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

GC Semi VOA (Continued)

Analysis Batch: 20572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-10	BH04	Total/NA	Solid	8015 NM	
890-1960-11	BH04A	Total/NA	Solid	8015 NM	
890-1960-12	BH04B	Total/NA	Solid	8015 NM	
890-1960-13	BH05	Total/NA	Solid	8015 NM	
890-1960-14	BH05A	Total/NA	Solid	8015 NM	
890-1960-15	BH05B	Total/NA	Solid	8015 NM	
890-1960-16	BH06	Total/NA	Solid	8015 NM	
890-1960-17	BH06A	Total/NA	Solid	8015 NM	
890-1960-18	BH06B	Total/NA	Solid	8015 NM	
890-1960-19	BH07	Total/NA	Solid	8015 NM	
890-1960-20	BH07A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Soluble	Solid	DI Leach	
890-1960-2	BH01A	Soluble	Solid	DI Leach	
890-1960-3	BH01B	Soluble	Solid	DI Leach	
890-1960-4	BH02	Soluble	Solid	DI Leach	
890-1960-5	BH02A	Soluble	Solid	DI Leach	
890-1960-6	BH02B	Soluble	Solid	DI Leach	
890-1960-7	BH03	Soluble	Solid	DI Leach	
890-1960-8	BH03A	Soluble	Solid	DI Leach	
890-1960-9	BH03B	Soluble	Solid	DI Leach	
890-1960-10	BH04	Soluble	Solid	DI Leach	
MB 880-19804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1960-1 MS	BH01	Soluble	Solid	DI Leach	
890-1960-1 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 19805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-11	BH04A	Soluble	Solid	DI Leach	
890-1960-12	BH04B	Soluble	Solid	DI Leach	
890-1960-13	BH05	Soluble	Solid	DI Leach	
890-1960-14	BH05A	Soluble	Solid	DI Leach	
890-1960-15	BH05B	Soluble	Solid	DI Leach	
890-1960-16	BH06	Soluble	Solid	DI Leach	
890-1960-17	BH06A	Soluble	Solid	DI Leach	
890-1960-18	BH06B	Soluble	Solid	DI Leach	
890-1960-19	BH07	Soluble	Solid	DI Leach	
890-1960-20	BH07A	Soluble	Solid	DI Leach	
890-1960-21	BH07B	Soluble	Solid	DI Leach	
890-1960-22	BH08	Soluble	Solid	DI Leach	
890-1960-23	BH08A	Soluble	Solid	DI Leach	
MB 880-19805/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19805/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19805/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1960-14 MS	BH05A	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

HPLC/IC (Continued)

Leach Batch: 19805 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-14 MSD	BH05A	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Soluble	Solid	300.0	19804
890-1960-2	BH01A	Soluble	Solid	300.0	19804
890-1960-3	BH01B	Soluble	Solid	300.0	19804
890-1960-4	BH02	Soluble	Solid	300.0	19804
890-1960-5	BH02A	Soluble	Solid	300.0	19804
890-1960-6	BH02B	Soluble	Solid	300.0	19804
890-1960-7	BH03	Soluble	Solid	300.0	19804
890-1960-8	BH03A	Soluble	Solid	300.0	19804
890-1960-9	BH03B	Soluble	Solid	300.0	19804
890-1960-10	BH04	Soluble	Solid	300.0	19804
MB 880-19804/1-A	Method Blank	Soluble	Solid	300.0	19804
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	300.0	19804
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19804
890-1960-1 MS	BH01	Soluble	Solid	300.0	19804
890-1960-1 MSD	BH01	Soluble	Solid	300.0	19804

Analysis Batch: 19939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-11	BH04A	Soluble	Solid	300.0	19805
890-1960-12	BH04B	Soluble	Solid	300.0	19805
890-1960-13	BH05	Soluble	Solid	300.0	19805
890-1960-14	BH05A	Soluble	Solid	300.0	19805
890-1960-15	BH05B	Soluble	Solid	300.0	19805
890-1960-16	BH06	Soluble	Solid	300.0	19805
890-1960-17	BH06A	Soluble	Solid	300.0	19805
890-1960-18	BH06B	Soluble	Solid	300.0	19805
890-1960-19	BH07	Soluble	Solid	300.0	19805
890-1960-20	BH07A	Soluble	Solid	300.0	19805
890-1960-21	BH07B	Soluble	Solid	300.0	19805
890-1960-22	BH08	Soluble	Solid	300.0	19805
890-1960-23	BH08A	Soluble	Solid	300.0	19805
MB 880-19805/1-A	Method Blank	Soluble	Solid	300.0	19805
LCS 880-19805/2-A	Lab Control Sample	Soluble	Solid	300.0	19805
LCSD 880-19805/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19805
890-1960-14 MS	BH05A	Soluble	Solid	300.0	19805
890-1960-14 MSD	BH05A	Soluble	Solid	300.0	19805

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH01
Date Collected: 02/15/22 11:42
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 22:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 11:42	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		5			19937	02/21/22 21:54	CH	XEN MID

Client Sample ID: BH01A
Date Collected: 02/15/22 11:54
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-2
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	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 22:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 12:44	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		5			19937	02/21/22 22:13	CH	XEN MID

Client Sample ID: BH01B
Date Collected: 02/15/22 12:00
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 23:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 13:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:19	CH	XEN MID

Client Sample ID: BH02
Date Collected: 02/15/22 12:09
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 23:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH02
Date Collected: 02/15/22 12:09
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-4
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			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 13:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:38	CH	XEN MID

Client Sample ID: BH02A
Date Collected: 02/15/22 12:16
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-5
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			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 00:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 13:45	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:44	CH	XEN MID

Client Sample ID: BH02B
Date Collected: 02/15/22 12:21
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 00:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 14:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:51	CH	XEN MID

Client Sample ID: BH03
Date Collected: 02/15/22 12:29
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 00:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 14:26	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH03
Date Collected: 02/15/22 12:29
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:57	CH	XEN MID

Client Sample ID: BH03A
Date Collected: 02/15/22 12:34
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-8
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			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 01:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 14:47	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 23:03	CH	XEN MID

Client Sample ID: BH03B
Date Collected: 02/15/22 12:39
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-9
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			5.03 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 01:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 15:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 23:10	CH	XEN MID

Client Sample ID: BH04
Date Collected: 02/15/22 12:51
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-10
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			5.00 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 01:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 15:28	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 23:16	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH04A
Date Collected: 02/15/22 12:57
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-11
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			5.01 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 03:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 16:09	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:07	CH	XEN MID

Client Sample ID: BH04B
Date Collected: 02/15/22 13:01
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-12
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			4.95 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 03:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 16:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:13	CH	XEN MID

Client Sample ID: BH05
Date Collected: 02/15/22 15:57
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-13
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	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 03:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 16:50	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:20	CH	XEN MID

Client Sample ID: BH05A
Date Collected: 02/15/22 16:01
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-14
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			4.99 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 04:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH05A
Date Collected: 02/15/22 16:01
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-14
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			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 17:11	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:26	CH	XEN MID

Client Sample ID: BH05B
Date Collected: 02/15/22 16:04
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 04:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 17:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:45	CH	XEN MID

Client Sample ID: BH06
Date Collected: 02/15/22 15:16
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-16
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			5.03 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 17:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		5			19939	02/22/22 10:51	CH	XEN MID

Client Sample ID: BH06A
Date Collected: 02/15/22 15:25
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-17
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			4.95 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 18:12	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH06A
Date Collected: 02/15/22 15:25
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-17
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			5.04 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:10	CH	XEN MID

Client Sample ID: BH06B
Date Collected: 02/15/22 15:30
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-18
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			4.99 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 18:33	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:17	CH	XEN MID

Client Sample ID: BH07
Date Collected: 02/15/22 15:36
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-19
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			5.01 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 18:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:23	CH	XEN MID

Client Sample ID: BH07A
Date Collected: 02/15/22 15:41
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-20
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			5.02 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 06:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 19:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:29	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Client Sample ID: BH07B
Date Collected: 02/15/22 15:45
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-21
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	19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20287	02/25/22 16:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20370	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19992	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19826	02/18/22 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/19/22 23:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:36	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/15/22 16:12
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-22
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	19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20287	02/25/22 16:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20370	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19992	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19826	02/18/22 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/20/22 00:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:42	CH	XEN MID

Client Sample ID: BH08A
Date Collected: 02/15/22 16:16
Date Received: 02/16/22 11:07

Lab Sample ID: 890-1960-23
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	19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20287	02/25/22 17:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20370	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19992	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19826	02/18/22 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/20/22 00:33	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:48	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

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: WSP USA Inc.
Project/Site: NoCaster 19

Job ID: 890-1960-1
SDG: 31402309.16

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1960-1	BH01	Solid	02/15/22 11:42	02/16/22 11:07	1
890-1960-2	BH01A	Solid	02/15/22 11:54	02/16/22 11:07	3
890-1960-3	BH01B	Solid	02/15/22 12:00	02/16/22 11:07	5
890-1960-4	BH02	Solid	02/15/22 12:09	02/16/22 11:07	1
890-1960-5	BH02A	Solid	02/15/22 12:16	02/16/22 11:07	3
890-1960-6	BH02B	Solid	02/15/22 12:21	02/16/22 11:07	5
890-1960-7	BH03	Solid	02/15/22 12:29	02/16/22 11:07	1
890-1960-8	BH03A	Solid	02/15/22 12:34	02/16/22 11:07	3
890-1960-9	BH03B	Solid	02/15/22 12:39	02/16/22 11:07	5
890-1960-10	BH04	Solid	02/15/22 12:51	02/16/22 11:07	1
890-1960-11	BH04A	Solid	02/15/22 12:57	02/16/22 11:07	3
890-1960-12	BH04B	Solid	02/15/22 13:01	02/16/22 11:07	5
890-1960-13	BH05	Solid	02/15/22 15:57	02/16/22 11:07	1
890-1960-14	BH05A	Solid	02/15/22 16:01	02/16/22 11:07	3
890-1960-15	BH05B	Solid	02/15/22 16:04	02/16/22 11:07	5
890-1960-16	BH06	Solid	02/15/22 15:16	02/16/22 11:07	1
890-1960-17	BH06A	Solid	02/15/22 15:25	02/16/22 11:07	3
890-1960-18	BH06B	Solid	02/15/22 15:30	02/16/22 11:07	5
890-1960-19	BH07	Solid	02/15/22 15:36	02/16/22 11:07	1
890-1960-20	BH07A	Solid	02/15/22 15:41	02/16/22 11:07	3
890-1960-21	BH07B	Solid	02/15/22 15:45	02/16/22 11:07	5
890-1960-22	BH08	Solid	02/15/22 16:12	02/16/22 11:07	1
890-1960-23	BH08A	Solid	02/15/22 16:16	02/16/22 11:07	2

Chain of Custody

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)

Work Order No: _____

www.xenco.com Page 1 of 3

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 ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NoCaster 19	Turn Around	
Project Number:	31402909.16	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

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

ANALYSIS REQUEST

890-1960 Chain of Custody

Work Order Notes

TAT starts the day received 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
BH01	S	02/15/22	11:42	1	1	X	X	X	DISCRETE
BH01A	S	02/15/22	11:54	3	1	X	X	X	DISCRETE
BH01B	S	02/15/22	12:00	5	1	X	X	X	DISCRETE
BH02	S	02/15/22	12:09	1	1	X	X	X	DISCRETE
BH02A	S	02/15/22	12:16	3	1	X	X	X	DISCRETE
BH02B	S	02/15/22	12:21	5	1	X	X	X	DISCRETE
BH03	S	02/15/22	12:29	1	1	X	X	X	DISCRETE
BH03A	S	02/15/22	12:34	3	1	X	X	X	DISCRETE
BH03B	S	02/15/22	12:39	5	1	X	X	X	DISCRETE
BH04	S	02/15/22	12:51	1	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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	pbenner	Clue Culp	2.16.22 1107	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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 Page 2 of 3

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 ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NoCaster 19	Turn Around	
Project Number:	31402909.16	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

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

ANALYSIS REQUEST

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
BH04A	S	02/15/22	12:57	3	1	X	X	X	DISCRETE
BH04B	S	02/15/22	13:01	5	1	X	X	X	DISCRETE
BH05	S	02/15/22	15:57	1	1	X	X	X	DISCRETE
BH05A	S	02/15/22	16:01	3	1	X	X	X	DISCRETE
BH05B	S	02/15/22	16:04	5	1	X	X	X	DISCRETE
BH06	S	02/15/22	15:16	1	1	X	X	X	DISCRETE
BH06A	S	02/15/22	15:25	3	1	X	X	X	DISCRETE
BH06B	S	02/15/22	15:30	5	1	X	X	X	DISCRETE
BH07	S	02/15/22	15:36	1	1	X	X	X	DISCRETE
BH07A	S	02/15/22	15:41	3	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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner	[signature]	2.16.22 1107	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-628 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1960-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 2/22/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: NoCaster 19	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	8016MOD_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH01 (890-1960-1)	2/15/22	11 42 Mountain		Solid			X	X	X	X	X	1	
BH01A (890-1960-2)	2/15/22	11 54 Mountain		Solid			X	X	X	X	X	1	
BH01B (890-1960-3)	2/15/22	12 00 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-1960-4)	2/15/22	12 09 Mountain		Solid			X	X	X	X	X	1	
BH02A (890-1960-5)	2/15/22	12 16 Mountain		Solid			X	X	X	X	X	1	
BH02B (890-1960-6)	2/15/22	12 21 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-1960-7)	2/15/22	12 29 Mountain		Solid			X	X	X	X	X	1	
BH03A (890-1960-8)	2/15/22	12 34 Mountain		Solid			X	X	X	X	X	1	
BH03B (890-1960-9)	2/15/22	12 39 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central 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 Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central 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: Chee Cerp 2-16-22	Date/Time:	Company	Received by: [signature] Date/Time: 2/17/22 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time	Company	Received by: Date/Time Company

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

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-628 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 2 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1960-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 2/22/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: NoCaster 19	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I - Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V - MCAA, W pH 4-5, 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/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/6036FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note
			Preservation Code:										
BH04 (890-1960-10)	2/15/22	12 51 Mountain		Solid			X	X	X	X	X	1	
BH04A (890-1960-11)	2/15/22	12 57 Mountain		Solid			X	X	X	X	X	1	
BH04B (890-1960-12)	2/15/22	13 01 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-1960-13)	2/15/22	15 57 Mountain		Solid			X	X	X	X	X	1	
BH05A (890-1960-14)	2/15/22	16 01 Mountain		Solid			X	X	X	X	X	1	
BH05B (890-1960-15)	2/15/22	16 04 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-1960-16)	2/15/22	15 16 Mountain		Solid			X	X	X	X	X	1	
BH06A (890-1960-17)	2/15/22	15 25 Mountain		Solid			X	X	X	X	X	1	
BH06B (890-1960-18)	2/15/22	15 30 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, 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 Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification
Unconfirmed

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

Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Special Instructions/QC Requirements

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

Relinquished by: Cee Cep 2·16·22	Date/Time:	Company	Received by: P Kramer	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

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

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-628 3
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 3 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1960-1
Address: 1211 W Florida Ave	Due Date Requested: 2/22/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: NoCaster 19	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J - DI Water, K EDTA, L EDA, M - Hexane, N None, O AsNaO2, P Na2O4S, Q - Na2SO3, R Na2S2O3, S H2SO4, T - TSP Dodecahydrate, U Acetone, V - MCAA, W pH 4-5, 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/8015NM_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:										
BH07 (890-1960-19)	2/15/22	15 36 Mountain		Solid			X	X	X	X	X	1	
BH07A (890-1960-20)	2/15/22	15 41 Mountain		Solid			X	X	X	X	X	1	
BH07B (890-1960-21)	2/15/22	15 45 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-1960-22)	2/15/22	16 12 Mountain		Solid			X	X	X	X	X	1	
BH08A (890-1960-23)	2/15/22	16 16 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central 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 Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central 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
Relinquished by: Clue Crisp 2.14.22			Received by: J Kramer		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1960-1
SDG Number: 31402309.16

Login Number: 1960
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: WSP USA Inc.

Job Number: 890-1960-1
SDG Number: 31402309.16

Login Number: 1960
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 02/17/22 01:10 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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2249-1
Laboratory Sample Delivery Group: 03D2024007
Client Project/Site: No Caster 19 FED 004H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/3/2022 4:07:55 PM

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: No Caster 19 FED 004H

Laboratory Job ID: 890-2249-1
SDG: 03D2024007

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2249-1
Project/Site: No Caster 19 FED 004H SDG: 03D2024007

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Job ID: 890-2249-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2249-1

Receipt
The samples were received on 4/27/2022 8:21 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 0.8°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
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: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Client Sample ID: SW01

Lab Sample ID: 890-2249-1
Matrix: Solid
Date Collected: 04/26/22 15:05
Date Received: 04/27/22 08:21
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 20:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 20:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 20:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/22 08:12	05/02/22 20:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 20:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/22 08:12	05/02/22 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*05/02/22 08:12*	*05/02/22 20:35*	*1*
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*	*05/02/22 08:12*	*05/02/22 20:35*	*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			05/03/22 08:51	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			05/03/22 16:49	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		04/28/22 13:59	05/02/22 15:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 15:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*04/28/22 13:59*	*05/02/22 15:04*	*1*
o-Terphenyl	*85*		*70 - 130*	*04/28/22 13:59*	*05/02/22 15:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.2**		4.95		mg/Kg			05/01/22 20:13	1

Client Sample ID: SW02

Lab Sample ID: 890-2249-2
Matrix: Solid
Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:12	05/02/22 21:02	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:12	05/02/22 21:02	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:12	05/02/22 21:02	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/02/22 08:12	05/02/22 21:02	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/02/22 08:12	05/02/22 21:02	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/02/22 08:12	05/02/22 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*05/02/22 08:12*	*05/02/22 21:02*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Client Sample ID: SW02

Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21
Sample Depth: 0 - 4

Lab Sample ID: 890-2249-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/02/22 08:12*	*05/02/22 21:02*	*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			05/03/22 08:51	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			05/03/22 16:49	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		04/28/22 13:59	05/02/22 16:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/28/22 13:59	05/02/22 16:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/28/22 13:59	05/02/22 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*04/28/22 13:59*	*05/02/22 16:09*	*1*
o-Terphenyl	*96*		*70 - 130*	*04/28/22 13:59*	*05/02/22 16:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.7**		4.95	mg/Kg			05/01/22 20:22	1

Client Sample ID: SW04

Date Collected: 04/26/22 15:05
Date Received: 04/27/22 08:21
Sample Depth: 0 - 2

Lab Sample ID: 890-2249-3
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		05/02/22 08:12	05/02/22 21:29	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/02/22 08:12	05/02/22 21:29	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/02/22 08:12	05/02/22 21:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/02/22 08:12	05/02/22 21:29	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/02/22 08:12	05/02/22 21:29	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/02/22 08:12	05/02/22 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*05/02/22 08:12*	*05/02/22 21:29*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/02/22 08:12*	*05/02/22 21:29*	*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			05/03/22 08:51	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			05/03/22 16:49	1

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Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Client Sample ID: SW04

Lab Sample ID: 890-2249-3
Matrix: Solid
Date Collected: 04/26/22 15:05
Date Received: 04/27/22 08:21
Sample Depth: 0 - 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	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 16:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 16:31	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/28/22 13:59*	*05/02/22 16:31*	*1*
o-Terphenyl	*114*		*70 - 130*	*04/28/22 13:59*	*05/02/22 16:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**351**		4.99		mg/Kg			05/01/22 19:46	1

Client Sample ID: SW05

Lab Sample ID: 890-2249-4
Matrix: Solid
Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21
Sample Depth: 0 - 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		05/02/22 08:12	05/02/22 21:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 21:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 21:56	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/02/22 08:12	05/02/22 21:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 21:56	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/02/22 08:12	05/02/22 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*05/02/22 08:12*	*05/02/22 21:56*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*05/02/22 08:12*	*05/02/22 21:56*	*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			05/03/22 08:51	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			05/03/22 16:49	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		04/28/22 13:59	05/02/22 16:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 16:53	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*04/28/22 13:59*	*05/02/22 16:53*	*1*
o-Terphenyl	*103*		*70 - 130*	*04/28/22 13:59*	*05/02/22 16:53*	*1*

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Client Sample ID: SW05

Lab Sample ID: 890-2249-4
Matrix: Solid
Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21
Sample Depth: 0 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.5		5.00		mg/Kg			05/01/22 20:13	1

Client Sample ID: FS03

Lab Sample ID: 890-2249-5
Matrix: Solid
Date Collected: 04/26/22 14:55
Date Received: 04/27/22 08:21
Sample Depth: 2 - 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		05/02/22 08:12	05/02/22 22:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 22:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 22:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:12	05/02/22 22:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 22:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:12	05/02/22 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*05/02/22 08:12*	*05/02/22 22:23*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/02/22 08:12*	*05/02/22 22:23*	*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			05/03/22 08:51	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			05/03/22 16:49	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		04/28/22 13:59	05/02/22 17:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 17:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*04/28/22 13:59*	*05/02/22 17:14*	*1*
o-Terphenyl	*102*		*70 - 130*	*04/28/22 13:59*	*05/02/22 17:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		5.04		mg/Kg			05/01/22 20:22	1

Surrogate Summary

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-13978-A-5-E MS	Matrix Spike	111	98										
880-13978-A-5-F MSD	Matrix Spike Duplicate	105	101										
890-2249-1	SW01	120	127										
890-2249-2	SW02	118	93										
890-2249-3	SW04	118	95										
890-2249-4	SW05	75	76										
890-2249-5	FS03	112	95										
LCS 880-24600/1-A	Lab Control Sample	109	103										
LCSD 880-24600/2-A	Lab Control Sample Dup	110	101										
MB 880-24600/5-A	Method Blank	82	84										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2249-1	SW01	84	85										
890-2249-1 MS	SW01	85	84										
890-2249-1 MSD	SW01	88	84										
890-2249-2	SW02	90	96										
890-2249-3	SW04	111	114										
890-2249-4	SW05	99	103										
890-2249-5	FS03	96	102										
LCS 880-24438/2-A	Lab Control Sample	104	108										
LCSD 880-24438/3-A	Lab Control Sample Dup	103	108										
MB 880-24438/1-A	Method Blank	94	107										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24600/5-A
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24600

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/22 08:12	05/02/22 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*05/02/22 08:12*	*05/02/22 11:36*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*05/02/22 08:12*	*05/02/22 11:36*	*1*

Lab Sample ID: LCS 880-24600/1-A
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24600

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09633		mg/Kg		96	70 - 130		
Toluene			0.100	0.08295		mg/Kg		83	70 - 130		
Ethylbenzene			0.100	0.09115		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1840		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09343		mg/Kg		93	70 - 130		

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

Lab Sample ID: LCSD 880-24600/2-A
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24600

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08671		mg/Kg		87	70 - 130	11	35
Toluene			0.100	0.07875		mg/Kg		79	70 - 130	5	35
Ethylbenzene			0.100	0.08820		mg/Kg		88	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1768		mg/Kg		88	70 - 130	4	35
o-Xylene			0.100	0.09142		mg/Kg		91	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-13978-A-5-E MS
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24600

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0996	0.09708		mg/Kg		97	70 - 130		
Toluene	<0.00202	U	0.0996	0.08513		mg/Kg		85	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

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

Lab Sample ID: 880-13978-A-5-E MS
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24600

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0996	0.09669		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1936		mg/Kg		97	70 - 130
o-Xylene	<0.00202	U	0.0996	0.09756		mg/Kg		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-13978-A-5-F MSD
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24600

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.08939		mg/Kg		90	70 - 130	8	35
Toluene	<0.00202	U	0.0994	0.08122		mg/Kg		82	70 - 130	5	35
Ethylbenzene	<0.00202	U	0.0994	0.08920		mg/Kg		90	70 - 130	8	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1777		mg/Kg		89	70 - 130	9	35
o-Xylene	<0.00202	U	0.0994	0.09108		mg/Kg		92	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-24438/1-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24438

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		04/28/22 13:59	05/02/22 14:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 14:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*04/28/22 13:59*	*05/02/22 14:00*	*1*
o-Terphenyl	*107*		*70 - 130*	*04/28/22 13:59*	*05/02/22 14:00*	*1*

Lab Sample ID: LCS 880-24438/2-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24438

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	908.3		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)			1000	991.2		mg/Kg		99	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

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

Lab Sample ID: LCS 880-24438/2-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24438

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-24438/3-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24438

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	908.3		mg/Kg		91	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	988.6		mg/Kg		99	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 890-2249-1 MS
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 24438

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	789.6		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	816.9		mg/Kg		82	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 890-2249-1 MSD
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 24438

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	831.8		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	818.2		mg/Kg		82	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	84		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24411/1-A
Matrix: Solid
Analysis Batch: 24591

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			05/01/22 19:20	1

Lab Sample ID: LCS 880-24411/2-A
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.0		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-24411/3-A
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	235.6		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2249-3 MS
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: SW04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	351		250	602.5		mg/Kg		101	90 - 110		

Lab Sample ID: 890-2249-3 MSD
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: SW04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	351		250	588.5		mg/Kg		95	90 - 110	2	20

Lab Sample ID: MB 880-24410/1-A
Matrix: Solid
Analysis Batch: 24592

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			05/01/22 14:12	1

Lab Sample ID: LCS 880-24410/2-A
Matrix: Solid
Analysis Batch: 24592

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	232.0		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-24410/3-A
Matrix: Solid
Analysis Batch: 24592

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	225.8		mg/Kg		90	90 - 110	3	20

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-2244-A-31-D MS
Matrix: Solid
Analysis Batch: 24592

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	11.4		250	277.4		mg/Kg		107	90 - 110

Lab Sample ID: 890-2244-A-31-E MSD
Matrix: Solid
Analysis Batch: 24592

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	11.4		250	258.1		mg/Kg		99	90 - 110	7	20

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

GC VOA

Analysis Batch: 24597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Total/NA	Solid	8021B	24600
890-2249-2	SW02	Total/NA	Solid	8021B	24600
890-2249-3	SW04	Total/NA	Solid	8021B	24600
890-2249-4	SW05	Total/NA	Solid	8021B	24600
890-2249-5	FS03	Total/NA	Solid	8021B	24600
MB 880-24600/5-A	Method Blank	Total/NA	Solid	8021B	24600
LCS 880-24600/1-A	Lab Control Sample	Total/NA	Solid	8021B	24600
LCSD 880-24600/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24600
880-13978-A-5-E MS	Matrix Spike	Total/NA	Solid	8021B	24600
880-13978-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24600

Prep Batch: 24600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Total/NA	Solid	5035	
890-2249-2	SW02	Total/NA	Solid	5035	
890-2249-3	SW04	Total/NA	Solid	5035	
890-2249-4	SW05	Total/NA	Solid	5035	
890-2249-5	FS03	Total/NA	Solid	5035	
MB 880-24600/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24600/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24600/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13978-A-5-E MS	Matrix Spike	Total/NA	Solid	5035	
880-13978-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Total/NA	Solid	Total BTEX	
890-2249-2	SW02	Total/NA	Solid	Total BTEX	
890-2249-3	SW04	Total/NA	Solid	Total BTEX	
890-2249-4	SW05	Total/NA	Solid	Total BTEX	
890-2249-5	FS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Total/NA	Solid	8015NM Prep	
890-2249-2	SW02	Total/NA	Solid	8015NM Prep	
890-2249-3	SW04	Total/NA	Solid	8015NM Prep	
890-2249-4	SW05	Total/NA	Solid	8015NM Prep	
890-2249-5	FS03	Total/NA	Solid	8015NM Prep	
MB 880-24438/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24438/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2249-1 MS	SW01	Total/NA	Solid	8015NM Prep	
890-2249-1 MSD	SW01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Total/NA	Solid	8015B NM	24438
890-2249-2	SW02	Total/NA	Solid	8015B NM	24438

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

GC Semi VOA (Continued)

Analysis Batch: 24609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-3	SW04	Total/NA	Solid	8015B NM	24438
890-2249-4	SW05	Total/NA	Solid	8015B NM	24438
890-2249-5	FS03	Total/NA	Solid	8015B NM	24438
MB 880-24438/1-A	Method Blank	Total/NA	Solid	8015B NM	24438
LCS 880-24438/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24438
LCSD 880-24438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24438
890-2249-1 MS	SW01	Total/NA	Solid	8015B NM	24438
890-2249-1 MSD	SW01	Total/NA	Solid	8015B NM	24438

Analysis Batch: 24757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Total/NA	Solid	8015 NM	
890-2249-2	SW02	Total/NA	Solid	8015 NM	
890-2249-3	SW04	Total/NA	Solid	8015 NM	
890-2249-4	SW05	Total/NA	Solid	8015 NM	
890-2249-5	FS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Soluble	Solid	DI Leach	
890-2249-2	SW02	Soluble	Solid	DI Leach	
MB 880-24410/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24410/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24410/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2244-A-31-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2244-A-31-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 24411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-3	SW04	Soluble	Solid	DI Leach	
890-2249-4	SW05	Soluble	Solid	DI Leach	
890-2249-5	FS03	Soluble	Solid	DI Leach	
MB 880-24411/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24411/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24411/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2249-3 MS	SW04	Soluble	Solid	DI Leach	
890-2249-3 MSD	SW04	Soluble	Solid	DI Leach	

Analysis Batch: 24591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-3	SW04	Soluble	Solid	300.0	24411
890-2249-4	SW05	Soluble	Solid	300.0	24411
890-2249-5	FS03	Soluble	Solid	300.0	24411
MB 880-24411/1-A	Method Blank	Soluble	Solid	300.0	24411
LCS 880-24411/2-A	Lab Control Sample	Soluble	Solid	300.0	24411
LCSD 880-24411/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24411
890-2249-3 MS	SW04	Soluble	Solid	300.0	24411
890-2249-3 MSD	SW04	Soluble	Solid	300.0	24411

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

HPLC/IC

Analysis Batch: 24592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2249-1	SW01	Soluble	Solid	300.0	24410
890-2249-2	SW02	Soluble	Solid	300.0	24410
MB 880-24410/1-A	Method Blank	Soluble	Solid	300.0	24410
LCS 880-24410/2-A	Lab Control Sample	Soluble	Solid	300.0	24410
LCSD 880-24410/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24410
890-2244-A-31-D MS	Matrix Spike	Soluble	Solid	300.0	24410
890-2244-A-31-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24410

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Client Sample ID: SW01
Date Collected: 04/26/22 15:05
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2249-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 20:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24703	05/03/22 08:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24757	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 15:04	BJH	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 20:13	CH	XEN MID

Client Sample ID: SW02
Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2249-2
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			4.96 g	5 mL	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 21:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24703	05/03/22 08:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24757	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 16:09	BJH	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 20:22	CH	XEN MID

Client Sample ID: SW04
Date Collected: 04/26/22 15:05
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2249-3
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			4.97 g	5 mL	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 21:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24703	05/03/22 08:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24757	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 16:31	BJH	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 19:46	CH	XEN MID

Client Sample ID: SW05
Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2249-4
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	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 21:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24703	05/03/22 08:51	AJ	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Client Sample ID: SW05

Lab Sample ID: 890-2249-4
Matrix: Solid
Date Collected: 04/26/22 15:10
Date Received: 04/27/22 08:21

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			24757	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 16:53	BJH	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 20:13	CH	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-2249-5
Matrix: Solid
Date Collected: 04/26/22 14:55
Date Received: 04/27/22 08:21

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	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 22:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24703	05/03/22 08:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24757	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 17:14	BJH	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 20:22	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: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

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: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

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: No Caster 19 FED 004H

Job ID: 890-2249-1
SDG: 03D2024007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2249-1	SW01	Solid	04/26/22 15:05	04/27/22 08:21	0 - 4
890-2249-2	SW02	Solid	04/26/22 15:10	04/27/22 08:21	0 - 4
890-2249-3	SW04	Solid	04/26/22 15:05	04/27/22 08:21	0 - 2
890-2249-4	SW05	Solid	04/26/22 15:10	04/27/22 08:21	0 - 2
890-2249-5	FS03	Solid	04/26/22 14:55	04/27/22 08:21	2 - 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 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	EnSolum LLC	Company Name:	
Address:	601 N Marienfeld St	Address:	
City, State ZIP:	Suite 400 Midland TX, 79701	City, State ZIP:	
Phone:	817.683.2503	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:	NoCaster 19fed 00411	Turn Around	
Project Number:	03D 2024007	☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	IR-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.0	
Total Containers:		Corrected Temperature:	0.8	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX	TPH	Chlorides	Sample Comments
SW01	S	04/25	1505	0-4'	C	1	X	X	X	Composite
SW02	S	04/25	1510	0-4'	C	1				Composite
CS ~~SW03~~ SW04	S	04/26	1505	0-2'	C	1				Composite
SW05	S	04/26	1510	0-2'	C	1				Composite
FS03	S	04/26	1455	2'	C	1				Composite
CS										

Preservative Codes

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Clive Cay	4.27.22 0821	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins 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: 890-730 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2249-1
Address: 1211 W Florida Ave	Due Date Requested: 5/3/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: No caster 19 FED 004H	Project #: 89000094			
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/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW01 (890-2249-1)	4/26/22	15 05 Mountain		Solid			X	X	X	X	X	1	
SW02 (890-2249-2)	4/26/22	15 10 Mountain		Solid			X	X	X	X	X	1	
SW04 (890-2249-3)	4/26/22	15 05 Mountain		Solid			X	X	X	X	X	1	
SW05 (890-2249-4)	4/26/22	15 10 Mountain		Solid			X	X	X	X	X	1	
FS03 (890-2249-5)	4/26/22	14 55 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central 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 Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central 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	Clue Cup 4.27.22				4/28/22 10:2	
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 1.5/1.3 -2 IR8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2249-1
SDG Number: 03D2024007

Login Number: 2249
List Number: 1
Creator: Olivas, Nathaniel

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: 890-2249-1
SDG Number: 03D2024007

Login Number: 2249
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/28/22 10:30 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2253-1
Laboratory Sample Delivery Group: 03D2024007
Client Project/Site: No Caster 19 Fed 004H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/10/2022 12:33:31 PM

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: No Caster 19 Fed 004H

Laboratory Job ID: 890-2253-1
SDG: 03D2024007

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Job ID: 890-2253-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2253-1

Receipt
The samples were received on 4/27/2022 3:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: FS04 (890-2253-1), FS05 (890-2253-2), FS06 (890-2253-3), FS01 (890-2253-4), FS02 (890-2253-5), FS07 (890-2253-6), FS09 (890-2253-7), FS08 (890-2253-8), FS10 (890-2253-9), FS11 (890-2253-10), FS12 (890-2253-11), SW03 (890-2253-12), SW06 (890-2253-13), SW07 (890-2253-14), (CCV 880-25032/33), (CCV 880-25032/51), (CCV 880-25032/82), (CCV 880-25032/95), (LCS 880-25053/1-A), (LCSD 880-25053/2-A), (MB 880-25030/5-A), (MB 880-25053/5-A), (890-2252-A-10-E), (890-2252-A-10-C MS) and (890-2252-A-10-D MSD). 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 880-25053 and analytical batch 880-25032 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-24548 and analytical batch 880-24679 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: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS04

Lab Sample ID: 890-2253-1
Matrix: Solid
Date Collected: 04/27/22 10:05
Date Received: 04/27/22 15:26
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 00:36	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 00:36	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 00:36	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/08/22 16:37	05/09/22 00:36	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 00:36	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/08/22 16:37	05/09/22 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 00:36*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*05/08/22 16:37*	*05/09/22 00:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 21:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 21:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*04/29/22 15:34*	*05/02/22 21:59*	*1*
o-Terphenyl	*112*		*70 - 130*	*04/29/22 15:34*	*05/02/22 21:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**166**		5.02		mg/Kg			05/03/22 20:00	1

Client Sample ID: FS05

Lab Sample ID: 890-2253-2
Matrix: Solid
Date Collected: 04/27/22 10:10
Date Received: 04/27/22 15:26
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/08/22 16:37	05/09/22 01:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:01	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/08/22 16:37	05/09/22 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*218*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 01:01*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS05

Lab Sample ID: 890-2253-2
Matrix: Solid
Date Collected: 04/27/22 10:10
Date Received: 04/27/22 15:26
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*05/08/22 16:37*	*05/09/22 01:01*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 23:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 23:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*04/29/22 15:34*	*05/02/22 23:04*	*1*
o-Terphenyl	*108*		*70 - 130*	*04/29/22 15:34*	*05/02/22 23:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**447**		4.98		mg/Kg			05/03/22 20:19	1

Client Sample ID: FS06

Lab Sample ID: 890-2253-3
Matrix: Solid
Date Collected: 04/27/22 10:15
Date Received: 04/27/22 15:26
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:26	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/08/22 16:37	05/09/22 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 01:26	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/08/22 16:37	05/09/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*222*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 01:26*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/08/22 16:37*	*05/09/22 01:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS06

Lab Sample ID: 890-2253-3
Matrix: Solid
Date Collected: 04/27/22 10:15
Date Received: 04/27/22 15:26
Sample Depth: 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 23:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 23:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*04/29/22 15:34*	*05/02/22 23:25*	*1*
o-Terphenyl	*113*		*70 - 130*	*04/29/22 15:34*	*05/02/22 23:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**299**		5.00		mg/Kg			05/03/22 20:25	1

Client Sample ID: FS01

Lab Sample ID: 890-2253-4
Matrix: Solid
Date Collected: 04/27/22 10:05
Date Received: 04/27/22 15:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 01:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 01:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 01:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/08/22 16:37	05/09/22 01:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 01:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/08/22 16:37	05/09/22 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*230*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 01:50*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*05/08/22 16:37*	*05/09/22 01:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/02/22 23:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/02/22 23:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/02/22 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*04/29/22 15:34*	*05/02/22 23:46*	*1*
o-Terphenyl	*115*		*70 - 130*	*04/29/22 15:34*	*05/02/22 23:46*	*1*

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS01

Lab Sample ID: 890-2253-4
Matrix: Solid
Date Collected: 04/27/22 10:05
Date Received: 04/27/22 15:26
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	271		4.99		mg/Kg			05/03/22 20:32	1

Client Sample ID: FS02

Lab Sample ID: 890-2253-5
Matrix: Solid
Date Collected: 04/27/22 10:10
Date Received: 04/27/22 15:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:15	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/08/22 16:37	05/09/22 02:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:15	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/08/22 16:37	05/09/22 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*225*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 02:15*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*05/08/22 16:37*	*05/09/22 02:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*04/29/22 15:34*	*05/03/22 00:06*	*1*
o-Terphenyl	*122*		*70 - 130*	*04/29/22 15:34*	*05/03/22 00:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	754		4.95		mg/Kg			05/03/22 20:38	1

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS07

Lab Sample ID: 890-2253-6
Matrix: Solid
Date Collected: 04/27/22 10:15
Date Received: 04/27/22 15:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:41	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:41	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:41	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/08/22 16:37	05/09/22 02:41	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/08/22 16:37	05/09/22 02:41	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/08/22 16:37	05/09/22 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*216*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 02:41*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*05/08/22 16:37*	*05/09/22 02:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*04/29/22 15:34*	*05/03/22 00:26*	*1*
o-Terphenyl	*116*		*70 - 130*	*04/29/22 15:34*	*05/03/22 00:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**215**		4.97		mg/Kg			05/03/22 20:57	1

Client Sample ID: FS09

Lab Sample ID: 890-2253-7
Matrix: Solid
Date Collected: 04/27/22 11:00
Date Received: 04/27/22 15:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 03:06	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 03:06	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 03:06	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/08/22 16:37	05/09/22 03:06	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/08/22 16:37	05/09/22 03:06	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/08/22 16:37	05/09/22 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*216*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 03:06*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS09

Lab Sample ID: 890-2253-7
Matrix: Solid
Date Collected: 04/27/22 11:00
Date Received: 04/27/22 15:26
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/08/22 16:37*	*05/09/22 03:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:46	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/29/22 15:34*	*05/03/22 00:46*	*1*
o-Terphenyl	*110*		*70 - 130*	*04/29/22 15:34*	*05/03/22 00:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**586**		5.00		mg/Kg			05/03/22 21:04	1

Client Sample ID: FS08

Lab Sample ID: 890-2253-8
Matrix: Solid
Date Collected: 04/27/22 11:25
Date Received: 04/27/22 15:26
Sample Depth: 0.75

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 04:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 04:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 04:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 04:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 04:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 04:46*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*05/08/22 16:37*	*05/09/22 04:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS08

Lab Sample ID: 890-2253-8
Matrix: Solid
Date Collected: 04/27/22 11:25
Date Received: 04/27/22 15:26
Sample Depth: 0.75

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 01:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 01:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*04/29/22 15:34*	*05/03/22 01:07*	*1*
o-Terphenyl	*94*		*70 - 130*	*04/29/22 15:34*	*05/03/22 01:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**624**		4.99		mg/Kg			05/03/22 21:10	1

Client Sample ID: FS10

Lab Sample ID: 890-2253-9
Matrix: Solid
Date Collected: 04/27/22 11:55
Date Received: 04/27/22 15:26
Sample Depth: 0.75

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/08/22 16:37	05/09/22 05:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/08/22 16:37	05/09/22 05:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*157*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 05:12*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/08/22 16:37*	*05/09/22 05:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/03/22 01:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/03/22 01:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/03/22 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*04/29/22 15:34*	*05/03/22 01:28*	*1*
o-Terphenyl	*96*		*70 - 130*	*04/29/22 15:34*	*05/03/22 01:28*	*1*

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS10

Lab Sample ID: 890-2253-9
Matrix: Solid
Date Collected: 04/27/22 11:55
Date Received: 04/27/22 15:26
Sample Depth: 0.75

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	344		4.95		mg/Kg			05/03/22 21:16	1

Client Sample ID: FS11

Lab Sample ID: 890-2253-10
Matrix: Solid
Date Collected: 04/27/22 13:05
Date Received: 04/27/22 15:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/08/22 16:37	05/09/22 05:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/09/22 05:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/08/22 16:37	05/09/22 05:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*167*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 05:37*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*05/08/22 16:37*	*05/09/22 05:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 01:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 01:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/03/22 01:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*04/29/22 15:34*	*05/03/22 01:48*	*1*
o-Terphenyl	*108*		*70 - 130*	*04/29/22 15:34*	*05/03/22 01:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.5		4.96		mg/Kg			05/03/22 21:23	1

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS12

Lab Sample ID: 890-2253-11
Matrix: Solid
Date Collected: 04/27/22 13:10
Date Received: 04/27/22 15:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 06:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 06:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 06:03*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*05/08/22 16:37*	*05/09/22 06:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/03/22 02:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/03/22 02:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 15:34	05/03/22 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*04/29/22 15:34*	*05/03/22 02:29*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/29/22 15:34*	*05/03/22 02:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.2**	**F1**	4.98		mg/Kg			05/03/22 21:29	1

Client Sample ID: SW03

Lab Sample ID: 890-2253-12
Matrix: Solid
Date Collected: 04/27/22 11:00
Date Received: 04/27/22 15:26
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 06:29	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 06:29	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 06:29	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/08/22 16:37	05/09/22 06:29	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/08/22 16:37	05/09/22 06:29	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/08/22 16:37	05/09/22 06:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*166*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 06:29*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: SW03

Lab Sample ID: 890-2253-12
Matrix: Solid
Date Collected: 04/27/22 11:00
Date Received: 04/27/22 15:26
Sample Depth: 0 - 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/08/22 16:37*	*05/09/22 06:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 04:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 04:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*04/29/22 14:07*	*05/02/22 04:34*	*1*
o-Terphenyl	*97*		*70 - 130*	*04/29/22 14:07*	*05/02/22 04:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**222**		5.04		mg/Kg			05/03/22 21:48	1

Client Sample ID: SW06

Lab Sample ID: 890-2253-13
Matrix: Solid
Date Collected: 04/27/22 11:35
Date Received: 04/27/22 15:26
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 06:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 06:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 06:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*201*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 06:55*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/08/22 16:37*	*05/09/22 06:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/02/22 09:24	1

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Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: SW06

Lab Sample ID: 890-2253-13
Matrix: Solid
Date Collected: 04/27/22 11:35
Date Received: 04/27/22 15:26
Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 04:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 04:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/29/22 14:07*	*05/02/22 04:54*	*1*
o-Terphenyl	*112*		*70 - 130*	*04/29/22 14:07*	*05/02/22 04:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**566**		5.00		mg/Kg			05/03/22 21:55	1

Client Sample ID: SW07

Lab Sample ID: 890-2253-14
Matrix: Solid
Date Collected: 04/27/22 11:10
Date Received: 04/27/22 15:26
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 07:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 07:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 07:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 07:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/08/22 16:37	05/09/22 07:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/08/22 16:37	05/09/22 07:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*150*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/09/22 07:21*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/08/22 16:37*	*05/09/22 07:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 05:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 05:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/02/22 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*04/29/22 14:07*	*05/02/22 05:14*	*1*
o-Terphenyl	*108*		*70 - 130*	*04/29/22 14:07*	*05/02/22 05:14*	*1*

Client Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: SW07

Lab Sample ID: 890-2253-14
Matrix: Solid
Date Collected: 04/27/22 11:10
Date Received: 04/27/22 15:26
Sample Depth: 0 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.9**		4.99		mg/Kg			05/03/22 22:14	1

Client Sample ID: SW08

Lab Sample ID: 890-2253-15
Matrix: Solid
Date Collected: 04/27/22 12:55
Date Received: 04/27/22 15:26
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:01	05/10/22 05:06	1
Toluene	**0.0360**		0.00200		mg/Kg		05/09/22 11:01	05/10/22 05:06	1
Ethylbenzene	**0.0105**		0.00200		mg/Kg		05/09/22 11:01	05/10/22 05:06	1
m-Xylene & p-Xylene	**0.124**		0.00400		mg/Kg		05/09/22 11:01	05/10/22 05:06	1
o-Xylene	**0.0415**		0.00200		mg/Kg		05/09/22 11:01	05/10/22 05:06	1
Xylenes, Total	**0.166**		0.00400		mg/Kg		05/09/22 11:01	05/10/22 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*05/09/22 11:01*	*05/10/22 05:06*	*1*
1,4-Difluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*05/09/22 11:01*	*05/10/22 05:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.212**		0.00400		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/02/22 09:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 05:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 05:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/29/22 14:07	05/02/22 05:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/29/22 14:07*	*05/02/22 05:35*	*1*
o-Terphenyl	*114*		*70 - 130*	*04/29/22 14:07*	*05/02/22 05:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**243**		4.95		mg/Kg			05/03/22 22:20	1

Surrogate Summary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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)
890-2252-A-5-D MS	Matrix Spike	122	90
890-2252-A-5-E MSD	Matrix Spike Duplicate	126	86
890-2252-A-10-C MS	Matrix Spike	195 S1+	80
890-2252-A-10-D MSD	Matrix Spike Duplicate	138067 S1+	3 S1-
890-2253-1	FS04	206 S1+	74
890-2253-2	FS05	218 S1+	81
890-2253-3	FS06	222 S1+	82
890-2253-4	FS01	230 S1+	80
890-2253-5	FS02	225 S1+	80
890-2253-6	FS07	216 S1+	80
890-2253-7	FS09	216 S1+	75
890-2253-8	FS08	198 S1+	108
890-2253-9	FS10	157 S1+	85
890-2253-10	FS11	167 S1+	76
890-2253-11	FS12	198 S1+	76
890-2253-12	SW03	166 S1+	75
890-2253-13	SW06	201 S1+	75
890-2253-14	SW07	150 S1+	93
890-2253-15	SW08	134 S1+	131 S1+
LCS 880-25053/1-A	Lab Control Sample	196 S1+	83
LCS 880-25072/1-A	Lab Control Sample	124	89
LCSD 880-25053/2-A	Lab Control Sample Dup	187 S1+	75
LCSD 880-25072/2-A	Lab Control Sample Dup	118	91
MB 880-25030/5-A	Method Blank	136 S1+	72
MB 880-25053/5-A	Method Blank	146 S1+	70
MB 880-25055/8	Method Blank	104	89
MB 880-25072/5-A	Method Blank	103	89

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2241-A-1-D MS	Matrix Spike	90	82
890-2241-A-1-E MSD	Matrix Spike Duplicate	92	83
890-2253-1	FS04	112	112
890-2253-1 MS	FS04	103	92
890-2253-1 MSD	FS04	98	87
890-2253-2	FS05	110	108
890-2253-3	FS06	115	113
890-2253-4	FS01	119	115
890-2253-5	FS02	120	122
890-2253-6	FS07	116	116
890-2253-7	FS09	111	110
890-2253-8	FS08	93	94

Surrogate Summary

Client: Ensolum Job ID: 890-2253-1
Project/Site: No Caster 19 Fed 004H SDG: 03D2024007

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-2253-9	FS10	95	96								
890-2253-10	FS11	107	108								
890-2253-11	FS12	110	109								
890-2253-12	SW03	96	97								
890-2253-13	SW06	111	112								
890-2253-14	SW07	110	108								
890-2253-15	SW08	113	114								
LCS 880-24524/2-A	Lab Control Sample	107	105								
LCS 880-24535/2-A	Lab Control Sample	107	102								
LCSD 880-24524/3-A	Lab Control Sample Dup	105	104								
LCSD 880-24535/3-A	Lab Control Sample Dup	104	100								
MB 880-24524/1-A	Method Blank	97	106								
MB 880-24535/1-A	Method Blank	108	111								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25030/5-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/07/22 13:13	05/08/22 09:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*05/07/22 13:13*	*05/08/22 09:29*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*05/07/22 13:13*	*05/08/22 09:29*	*1*

Lab Sample ID: MB 880-25053/5-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/08/22 22:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/08/22 22:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/08/22 22:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/08/22 16:37	05/08/22 22:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/08/22 16:37	05/08/22 22:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/08/22 16:37	05/08/22 22:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*05/08/22 16:37*	*05/08/22 22:56*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*05/08/22 16:37*	*05/08/22 22:56*	*1*

Lab Sample ID: LCS 880-25053/1-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1185		mg/Kg		119	70 - 130
Toluene	0.100	0.1101		mg/Kg		110	70 - 130
Ethylbenzene	0.100	0.1221		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	0.200	0.2447		mg/Kg		122	70 - 130
o-Xylene	0.100	0.1196		mg/Kg		120	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*196*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: LCSD 880-25053/2-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25053

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09209		mg/Kg		92	70 - 130	25	35

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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

Lab Sample ID: LCSD 880-25053/2-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25053

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08453		mg/Kg		85	70 - 130	26	35
Ethylbenzene			0.100	0.09824		mg/Kg		98	70 - 130	22	35
m-Xylene & p-Xylene			0.200	0.2001		mg/Kg		100	70 - 130	20	35
o-Xylene			0.100	0.09849		mg/Kg		98	70 - 130	19	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*187*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: 890-2252-A-10-C MS
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1 F2	0.0996	0.09318		mg/Kg		94	70 - 130
Toluene	<0.00200	U F1 F2	0.0996	0.08694		mg/Kg		87	70 - 130
Ethylbenzene	<0.00200	U F1 F2	0.0996	0.09724		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.199	0.1978		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0996	0.09955		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*195*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*

Lab Sample ID: 890-2252-A-10-D MSD
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 25053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.101	<0.00202	U F1 F2	mg/Kg		0.6	70 - 130	198	35
Toluene	<0.00200	U F1 F2	0.101	0.003324	F1 F2	mg/Kg		3	70 - 130	185	35
Ethylbenzene	<0.00200	U F1 F2	0.101	0.002314	F1 F2	mg/Kg		2	70 - 130	191	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.202	<0.00403	U F1 F2	mg/Kg		1	70 - 130	195	35
o-Xylene	<0.00200	U F1 F2	0.101	0.002349	F1 F2	mg/Kg		2	70 - 130	191	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138067*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*3*	*S1-*	*70 - 130*

Lab Sample ID: MB 880-25055/8
Matrix: Solid
Analysis Batch: 25055

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			05/09/22 11:01	1
Toluene	<0.00200	U	0.00200		mg/Kg			05/09/22 11:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			05/09/22 11:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			05/09/22 11:01	1

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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

Lab Sample ID: MB 880-25055/8
Matrix: Solid
Analysis Batch: 25055

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg			05/09/22 11:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			05/09/22 11:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*05/09/22 11:01*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*		*05/09/22 11:01*	*1*

Lab Sample ID: MB 880-25072/5-A
Matrix: Solid
Analysis Batch: 25055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25072

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:01	05/09/22 23:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:01	05/09/22 23:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:01	05/09/22 23:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/09/22 11:01	05/09/22 23:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/09/22 11:01	05/09/22 23:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/09/22 11:01	05/09/22 23:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/09/22 11:01*	*05/09/22 23:59*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/09/22 11:01*	*05/09/22 23:59*	*1*

Lab Sample ID: LCS 880-25072/1-A
Matrix: Solid
Analysis Batch: 25055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25072

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07686		mg/Kg		77	70 - 130
Toluene	0.100	0.09570		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.1080		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2251		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1157		mg/Kg		116	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-25072/2-A
Matrix: Solid
Analysis Batch: 25055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25072

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07208		mg/Kg		72	70 - 130	6	35
Toluene	0.100	0.08611		mg/Kg		86	70 - 130	11	35
Ethylbenzene	0.100	0.09489		mg/Kg		95	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1962		mg/Kg		98	70 - 130	14	35
o-Xylene	0.100	0.1005		mg/Kg		100	70 - 130	14	35

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 890-2252-A-5-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25055 — **Prep Batch: 25072**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.06588	F1	mg/Kg		66	70 - 130
Toluene	<0.00200	U	0.0996	0.08075		mg/Kg		81	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.09087		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1902		mg/Kg		95	70 - 130
o-Xylene	<0.00200	U	0.0996	0.09879		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-2252-A-5-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25055 — **Prep Batch: 25072**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0994	0.07535		mg/Kg		76	70 - 130	13	35
Toluene	<0.00200	U	0.0994	0.09914		mg/Kg		100	70 - 130	20	35
Ethylbenzene	<0.00200	U	0.0994	0.1134		mg/Kg		114	70 - 130	22	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2395		mg/Kg		120	70 - 130	23	35
o-Xylene	<0.00200	U	0.0994	0.1232		mg/Kg		124	70 - 130	22	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	126		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

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

Lab Sample ID: MB 880-24524/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24575 — **Prep Batch: 24524**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 21:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 21:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 14:07	05/01/22 21:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/29/22 14:07	05/01/22 21:21	1
o-Terphenyl	106		70 - 130	04/29/22 14:07	05/01/22 21:21	1

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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

Lab Sample ID: LCS 880-24524/2-A
Matrix: Solid
Analysis Batch: 24575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24524

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1109		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1026		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: LCSD 880-24524/3-A
Matrix: Solid
Analysis Batch: 24575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24524

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1053		mg/Kg		105	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	980.6		mg/Kg		98	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: 890-2241-A-1-D MS
Matrix: Solid
Analysis Batch: 24575

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24524

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	1012		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	803.0		mg/Kg		80	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Lab Sample ID: 890-2241-A-1-E MSD
Matrix: Solid
Analysis Batch: 24575

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24524

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	1051		mg/Kg		104	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	817.3		mg/Kg		82	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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

Lab Sample ID: 890-2241-A-1-E MSD
Matrix: Solid
Analysis Batch: 24575

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24524

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	83		70 - 130

Lab Sample ID: MB 880-24535/1-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 20:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 20:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/29/22 15:34	05/02/22 20:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	04/29/22 15:34	05/02/22 20:55	1
o-Terphenyl	111		70 - 130	04/29/22 15:34	05/02/22 20:55	1

Lab Sample ID: LCS 880-24535/2-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24535

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1117		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	953.8		mg/Kg		95	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-24535/3-A
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24535

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1053		mg/Kg		105	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	923.2		mg/Kg		92	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	100		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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

Lab Sample ID: 890-2253-1 MS
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: FS04
Prep Type: Total/NA
Prep Batch: 24535

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	1123		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	875.2		mg/Kg		88	70 - 130

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

Lab Sample ID: 890-2253-1 MSD
Matrix: Solid
Analysis Batch: 24615

Client Sample ID: FS04
Prep Type: Total/NA
Prep Batch: 24535

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	1073		mg/Kg		106	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	818.8		mg/Kg		82	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24548/1-A
Matrix: Solid
Analysis Batch: 24679

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/03/22 19:41	1

Lab Sample ID: LCS 880-24548/2-A
Matrix: Solid
Analysis Batch: 24679

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	255.3		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-24548/3-A
Matrix: Solid
Analysis Batch: 24679

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	233.7		mg/Kg		93	90 - 110	9	20

QC Sample Results

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2253-1 MS
Matrix: Solid
Analysis Batch: 24679

Client Sample ID: FS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	166		251	406.1		mg/Kg		96	90 - 110

Lab Sample ID: 890-2253-1 MSD
Matrix: Solid
Analysis Batch: 24679

Client Sample ID: FS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	166		251	441.6		mg/Kg		110	90 - 110	8	20

Lab Sample ID: 890-2253-11 MS
Matrix: Solid
Analysis Batch: 24679

Client Sample ID: FS12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	19.2	F1	249	283.2		mg/Kg		106	90 - 110

Lab Sample ID: 890-2253-11 MSD
Matrix: Solid
Analysis Batch: 24679

Client Sample ID: FS12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19.2	F1	249	300.7	F1	mg/Kg		113	90 - 110	6	20

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

GC VOA

Prep Batch: 25030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25030/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 25032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Total/NA	Solid	8021B	25053
890-2253-2	FS05	Total/NA	Solid	8021B	25053
890-2253-3	FS06	Total/NA	Solid	8021B	25053
890-2253-4	FS01	Total/NA	Solid	8021B	25053
890-2253-5	FS02	Total/NA	Solid	8021B	25053
890-2253-6	FS07	Total/NA	Solid	8021B	25053
890-2253-7	FS09	Total/NA	Solid	8021B	25053
890-2253-8	FS08	Total/NA	Solid	8021B	25053
890-2253-9	FS10	Total/NA	Solid	8021B	25053
890-2253-10	FS11	Total/NA	Solid	8021B	25053
890-2253-11	FS12	Total/NA	Solid	8021B	25053
890-2253-12	SW03	Total/NA	Solid	8021B	25053
890-2253-13	SW06	Total/NA	Solid	8021B	25053
890-2253-14	SW07	Total/NA	Solid	8021B	25053
MB 880-25030/5-A	Method Blank	Total/NA	Solid	8021B	25030
MB 880-25053/5-A	Method Blank	Total/NA	Solid	8021B	25053
LCS 880-25053/1-A	Lab Control Sample	Total/NA	Solid	8021B	25053
LCSD 880-25053/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25053
890-2252-A-10-C MS	Matrix Spike	Total/NA	Solid	8021B	25053
890-2252-A-10-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25053

Prep Batch: 25053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Total/NA	Solid	5035	
890-2253-2	FS05	Total/NA	Solid	5035	
890-2253-3	FS06	Total/NA	Solid	5035	
890-2253-4	FS01	Total/NA	Solid	5035	
890-2253-5	FS02	Total/NA	Solid	5035	
890-2253-6	FS07	Total/NA	Solid	5035	
890-2253-7	FS09	Total/NA	Solid	5035	
890-2253-8	FS08	Total/NA	Solid	5035	
890-2253-9	FS10	Total/NA	Solid	5035	
890-2253-10	FS11	Total/NA	Solid	5035	
890-2253-11	FS12	Total/NA	Solid	5035	
890-2253-12	SW03	Total/NA	Solid	5035	
890-2253-13	SW06	Total/NA	Solid	5035	
890-2253-14	SW07	Total/NA	Solid	5035	
MB 880-25053/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25053/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25053/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2252-A-10-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2252-A-10-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 25055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-15	SW08	Total/NA	Solid	8021B	25072
MB 880-25055/8	Method Blank	Total/NA	Solid	8021B	

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

GC VOA (Continued)

Analysis Batch: 25055 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25072/5-A	Method Blank	Total/NA	Solid	8021B	25072
LCS 880-25072/1-A	Lab Control Sample	Total/NA	Solid	8021B	25072
LCSD 880-25072/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25072
890-2252-A-5-D MS	Matrix Spike	Total/NA	Solid	8021B	25072
890-2252-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25072

Prep Batch: 25072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-15	SW08	Total/NA	Solid	5035	
MB 880-25072/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25072/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25072/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2252-A-5-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2252-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 25084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Total/NA	Solid	Total BTEX	
890-2253-2	FS05	Total/NA	Solid	Total BTEX	
890-2253-3	FS06	Total/NA	Solid	Total BTEX	
890-2253-4	FS01	Total/NA	Solid	Total BTEX	
890-2253-5	FS02	Total/NA	Solid	Total BTEX	
890-2253-6	FS07	Total/NA	Solid	Total BTEX	
890-2253-7	FS09	Total/NA	Solid	Total BTEX	
890-2253-8	FS08	Total/NA	Solid	Total BTEX	
890-2253-9	FS10	Total/NA	Solid	Total BTEX	
890-2253-10	FS11	Total/NA	Solid	Total BTEX	
890-2253-11	FS12	Total/NA	Solid	Total BTEX	
890-2253-12	SW03	Total/NA	Solid	Total BTEX	
890-2253-13	SW06	Total/NA	Solid	Total BTEX	
890-2253-14	SW07	Total/NA	Solid	Total BTEX	
890-2253-15	SW08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-12	SW03	Total/NA	Solid	8015NM Prep	
890-2253-13	SW06	Total/NA	Solid	8015NM Prep	
890-2253-14	SW07	Total/NA	Solid	8015NM Prep	
890-2253-15	SW08	Total/NA	Solid	8015NM Prep	
MB 880-24524/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24524/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24524/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2241-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2241-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 24535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Total/NA	Solid	8015NM Prep	
890-2253-2	FS05	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

GC Semi VOA (Continued)

Prep Batch: 24535 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-3	FS06	Total/NA	Solid	8015NM Prep	
890-2253-4	FS01	Total/NA	Solid	8015NM Prep	
890-2253-5	FS02	Total/NA	Solid	8015NM Prep	
890-2253-6	FS07	Total/NA	Solid	8015NM Prep	
890-2253-7	FS09	Total/NA	Solid	8015NM Prep	
890-2253-8	FS08	Total/NA	Solid	8015NM Prep	
890-2253-9	FS10	Total/NA	Solid	8015NM Prep	
890-2253-10	FS11	Total/NA	Solid	8015NM Prep	
890-2253-11	FS12	Total/NA	Solid	8015NM Prep	
MB 880-24535/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24535/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24535/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2253-1 MS	FS04	Total/NA	Solid	8015NM Prep	
890-2253-1 MSD	FS04	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-12	SW03	Total/NA	Solid	8015B NM	24524
890-2253-13	SW06	Total/NA	Solid	8015B NM	24524
890-2253-14	SW07	Total/NA	Solid	8015B NM	24524
890-2253-15	SW08	Total/NA	Solid	8015B NM	24524
MB 880-24524/1-A	Method Blank	Total/NA	Solid	8015B NM	24524
LCS 880-24524/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24524
LCSD 880-24524/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24524
890-2241-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	24524
890-2241-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24524

Analysis Batch: 24615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Total/NA	Solid	8015B NM	24535
890-2253-2	FS05	Total/NA	Solid	8015B NM	24535
890-2253-3	FS06	Total/NA	Solid	8015B NM	24535
890-2253-4	FS01	Total/NA	Solid	8015B NM	24535
890-2253-5	FS02	Total/NA	Solid	8015B NM	24535
890-2253-6	FS07	Total/NA	Solid	8015B NM	24535
890-2253-7	FS09	Total/NA	Solid	8015B NM	24535
890-2253-8	FS08	Total/NA	Solid	8015B NM	24535
890-2253-9	FS10	Total/NA	Solid	8015B NM	24535
890-2253-10	FS11	Total/NA	Solid	8015B NM	24535
890-2253-11	FS12	Total/NA	Solid	8015B NM	24535
MB 880-24535/1-A	Method Blank	Total/NA	Solid	8015B NM	24535
LCS 880-24535/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24535
LCSD 880-24535/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24535
890-2253-1 MS	FS04	Total/NA	Solid	8015B NM	24535
890-2253-1 MSD	FS04	Total/NA	Solid	8015B NM	24535

Analysis Batch: 24624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Total/NA	Solid	8015 NM	
890-2253-2	FS05	Total/NA	Solid	8015 NM	
890-2253-3	FS06	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

GC Semi VOA (Continued)

Analysis Batch: 24624 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-4	FS01	Total/NA	Solid	8015 NM	
890-2253-5	FS02	Total/NA	Solid	8015 NM	
890-2253-6	FS07	Total/NA	Solid	8015 NM	
890-2253-7	FS09	Total/NA	Solid	8015 NM	
890-2253-8	FS08	Total/NA	Solid	8015 NM	
890-2253-9	FS10	Total/NA	Solid	8015 NM	
890-2253-10	FS11	Total/NA	Solid	8015 NM	
890-2253-11	FS12	Total/NA	Solid	8015 NM	
890-2253-12	SW03	Total/NA	Solid	8015 NM	
890-2253-13	SW06	Total/NA	Solid	8015 NM	
890-2253-14	SW07	Total/NA	Solid	8015 NM	
890-2253-15	SW08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Soluble	Solid	DI Leach	
890-2253-2	FS05	Soluble	Solid	DI Leach	
890-2253-3	FS06	Soluble	Solid	DI Leach	
890-2253-4	FS01	Soluble	Solid	DI Leach	
890-2253-5	FS02	Soluble	Solid	DI Leach	
890-2253-6	FS07	Soluble	Solid	DI Leach	
890-2253-7	FS09	Soluble	Solid	DI Leach	
890-2253-8	FS08	Soluble	Solid	DI Leach	
890-2253-9	FS10	Soluble	Solid	DI Leach	
890-2253-10	FS11	Soluble	Solid	DI Leach	
890-2253-11	FS12	Soluble	Solid	DI Leach	
890-2253-12	SW03	Soluble	Solid	DI Leach	
890-2253-13	SW06	Soluble	Solid	DI Leach	
890-2253-14	SW07	Soluble	Solid	DI Leach	
890-2253-15	SW08	Soluble	Solid	DI Leach	
MB 880-24548/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24548/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24548/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2253-1 MS	FS04	Soluble	Solid	DI Leach	
890-2253-1 MSD	FS04	Soluble	Solid	DI Leach	
890-2253-11 MS	FS12	Soluble	Solid	DI Leach	
890-2253-11 MSD	FS12	Soluble	Solid	DI Leach	

Analysis Batch: 24679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-1	FS04	Soluble	Solid	300.0	24548
890-2253-2	FS05	Soluble	Solid	300.0	24548
890-2253-3	FS06	Soluble	Solid	300.0	24548
890-2253-4	FS01	Soluble	Solid	300.0	24548
890-2253-5	FS02	Soluble	Solid	300.0	24548
890-2253-6	FS07	Soluble	Solid	300.0	24548
890-2253-7	FS09	Soluble	Solid	300.0	24548
890-2253-8	FS08	Soluble	Solid	300.0	24548
890-2253-9	FS10	Soluble	Solid	300.0	24548

QC Association Summary

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

HPLC/IC (Continued)

Analysis Batch: 24679 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2253-10	FS11	Soluble	Solid	300.0	24548
890-2253-11	FS12	Soluble	Solid	300.0	24548
890-2253-12	SW03	Soluble	Solid	300.0	24548
890-2253-13	SW06	Soluble	Solid	300.0	24548
890-2253-14	SW07	Soluble	Solid	300.0	24548
890-2253-15	SW08	Soluble	Solid	300.0	24548
MB 880-24548/1-A	Method Blank	Soluble	Solid	300.0	24548
LCS 880-24548/2-A	Lab Control Sample	Soluble	Solid	300.0	24548
LCSD 880-24548/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24548
890-2253-1 MS	FS04	Soluble	Solid	300.0	24548
890-2253-1 MSD	FS04	Soluble	Solid	300.0	24548
890-2253-11 MS	FS12	Soluble	Solid	300.0	24548
890-2253-11 MSD	FS12	Soluble	Solid	300.0	24548

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS04
Date Collected: 04/27/22 10:05
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 00:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 21:59	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 20:00	CH	XEN MID

Client Sample ID: FS05
Date Collected: 04/27/22 10:10
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 01:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 23:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 20:19	CH	XEN MID

Client Sample ID: FS06
Date Collected: 04/27/22 10:15
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-3
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			4.99 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 01:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 23:25	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 20:25	CH	XEN MID

Client Sample ID: FS01
Date Collected: 04/27/22 10:05
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-4
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			4.98 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 01:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS01
Date Collected: 04/27/22 10:05
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-4
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			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/02/22 23:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 20:32	CH	XEN MID

Client Sample ID: FS02
Date Collected: 04/27/22 10:10
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 02:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 00:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 20:38	CH	XEN MID

Client Sample ID: FS07
Date Collected: 04/27/22 10:15
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-6
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			4.96 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 02:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 00:26	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 20:57	CH	XEN MID

Client Sample ID: FS09
Date Collected: 04/27/22 11:00
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-7
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			4.97 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 03:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 00:46	AJ	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS09
Date Collected: 04/27/22 11:00
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-7
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	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:04	CH	XEN MID

Client Sample ID: FS08
Date Collected: 04/27/22 11:25
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-8
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	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 04:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 01:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:10	CH	XEN MID

Client Sample ID: FS10
Date Collected: 04/27/22 11:55
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-9
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	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 05:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 01:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:16	CH	XEN MID

Client Sample ID: FS11
Date Collected: 04/27/22 13:05
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-10
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			5.01 g	5 mL	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 05:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 01:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:23	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: FS12
Lab Sample ID: 890-2253-11

Date Collected: 04/27/22 13:10
Matrix: Solid
Date Received: 04/27/22 15:26

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	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 06:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24535	04/29/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24615	05/03/22 02:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:29	CH	XEN MID

Client Sample ID: SW03
Lab Sample ID: 890-2253-12

Date Collected: 04/27/22 11:00
Matrix: Solid
Date Received: 04/27/22 15:26

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	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 06:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 04:34	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:48	CH	XEN MID

Client Sample ID: SW06
Lab Sample ID: 890-2253-13

Date Collected: 04/27/22 11:35
Matrix: Solid
Date Received: 04/27/22 15:26

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	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 06:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 04:54	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 21:55	CH	XEN MID

Client Sample ID: SW07
Lab Sample ID: 890-2253-14

Date Collected: 04/27/22 11:10
Matrix: Solid
Date Received: 04/27/22 15:26

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	25053	05/08/22 16:37	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/09/22 07:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Client Sample ID: SW07

Date Collected: 04/27/22 11:10
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-14
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			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 05:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 22:14	CH	XEN MID

Client Sample ID: SW08

Date Collected: 04/27/22 12:55
Date Received: 04/27/22 15:26

Lab Sample ID: 890-2253-15
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	25072	05/09/22 11:01	MR	XEN MID
Total/NA	Analysis	8021B		1			25055	05/10/22 05:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25084	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24624	05/02/22 09:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24524	04/29/22 14:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24575	05/02/22 05:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24548	04/29/22 16:57	SC	XEN MID
Soluble	Analysis	300.0		1			24679	05/03/22 22:20	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: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

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: No Caster 19 Fed 004H

Job ID: 890-2253-1
SDG: 03D2024007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2253-1	FS04	Solid	04/27/22 10:05	04/27/22 15:26	2
890-2253-2	FS05	Solid	04/27/22 10:10	04/27/22 15:26	2
890-2253-3	FS06	Solid	04/27/22 10:15	04/27/22 15:26	2
890-2253-4	FS01	Solid	04/27/22 10:05	04/27/22 15:26	4
890-2253-5	FS02	Solid	04/27/22 10:10	04/27/22 15:26	4
890-2253-6	FS07	Solid	04/27/22 10:15	04/27/22 15:26	4
890-2253-7	FS09	Solid	04/27/22 11:00	04/27/22 15:26	0.5
890-2253-8	FS08	Solid	04/27/22 11:25	04/27/22 15:26	0.75
890-2253-9	FS10	Solid	04/27/22 11:55	04/27/22 15:26	0.75
890-2253-10	FS11	Solid	04/27/22 13:05	04/27/22 15:26	0.5
890-2253-11	FS12	Solid	04/27/22 13:10	04/27/22 15:26	0.5
890-2253-12	SW03	Solid	04/27/22 11:00	04/27/22 15:26	0 - 2
890-2253-13	SW06	Solid	04/27/22 11:35	04/27/22 15:26	0 - 2
890-2253-14	SW07	Solid	04/27/22 11:10	04/27/22 15:26	0 - 2
890-2253-15	SW08	Solid	04/27/22 12:55	04/27/22 15:26	0 - 4

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	601 N Marienfeld St.	Address:	
City, State ZIP:	Suite 400 Midland, TX, 79701	City, State ZIP:	
Phone:	817.683.2503	Email:	Kalei Jennings - 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:	NO Caster 19 Fed 004H	Turn Around	
Project Number:	03D2024007	☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#2
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.4
Total Containers:		Corrected Temperature:	3.7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX	TPH	Chlorides
FS04	S	04/27	1005	2'	C	1		X	X	X
FS05	S		1010	2'						
FS06	S		1015	2'						
FS01			1005	4'						
FS02			1010	4'						
FS07			1015	4'						
FS09			1100	0.5'						
FS08			1125	0.75'						
FS10			1155	0.75'						
FS11	↓	↓	1305	0.5'	↓	↓		↓	↓	↓

Parameters

ANALYSIS REQUEST

890-2253 Chain of Custody

Preservative Codes

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

Sample Comments

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	N.	4/27/22 3:26	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:		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:	NO Coster 19 Fed 004 H	Turn Around	☒ Routine ☐ Rush
Project Number:	03D2034007	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Short		
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	TPH	Chlorides	Sample Comments
FS12	S	04/27	1310	0.5'	C	1		X	X	X	
SW03			1100	0-2'							
SW06			1135	0-2'							
SW07			1110	0-2'							
SW08	↓	↓	1255	0-4'	↓	↓		↓	↓	↓	
CS											

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	N.	4/27/22 3:27	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2253-1
SDG Number: 03D2024007

Login Number: 2253
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: 890-2253-1
SDG Number: 03D2024007

Login Number: 2253
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/29/22 10:53 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	

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	NAPP2124350596
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

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Oil Conservation Division

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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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 8/31/2021

L48 Spill Volume Estimate Form

Facility Name & Number:	NOCASTER 19 FEDERAL #4H BATTERY (LEASE #NM68820)
Asset Area:	NDBE - DB EAST ROUTE
Release Discovery Date & Time:	8/19/21 @ 11:00PM
Release Type:	Oil
Provide any known details about the event:	BLEW DIAPHRAM ON PRODUCTION KO OIL DUMP WHICH CAUSED THE DUMP VALVE NOT TO OPEN AND FILLED KO THEN FILLED SCRUBBER AND WENT OUT FLARE LINE. HEAT FROM FLARE FIRE SOFTENED THE WATER TRANSFER POLY LINE CAUSING IT TO RESULTING IN THE MIXTURE OF FLUIDS
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	50.0	30.0	0.38	15.12%	8.344	1.262			
Rectangle B	30.0	4.0	0.75	15.12%	1.335	0.202			
Rectangle C	30.0	3.5	0.63	15.12%	0.973	0.147			
Rectangle D	30.0	3.0	0.50	15.12%	0.668	0.101			
Rectangle E	30.0	2.5	0.38	15.12%	0.417	0.063			
Rectangle F	30.0	2.0	0.25	15.12%	0.223	0.034			
Rectangle G	10.0	1.5	0.19	15.12%	0.042	0.006			
Rectangle H					0.000	0.000			
Rectangle I					0.000	0.000			
					0.000	0.000			
					Total Volume Release:	1.815			

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District III
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District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

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Oil Conservation Division
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CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 45615
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	8/31/2021

State of New Mexico
Oil Conservation Division

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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.

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Printed Name: ___Charles Beauvais_____ Title: _Senior Environmental Engineer_____

Signature:_____ Date: __10/27/2022_____

email: _Charles.R.Beauvais@conocophillips.com _____ Telephone: ___575-988-2043_____

OCD Only

Received by: ___Jocelyn Harimon_____ Date: ___10/31/2022___

State of New Mexico
Oil Conservation Division

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Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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Printed Name: ___Charles Beauvais_____ Title: ___Senior Environmental Engineer____

Signature: _____ Date: ___10/27/2022_____

email: __Charles.R.Beauvais@conocophillips.com____ Telephone: ___575-988-2043_____

OCD Only

Received by: _____Jocelyn Harimon_____ Date: 10/31/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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CONDITIONS

Action 154896

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 154896
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	12/8/2022