ENSOLUM

August 30, 2022

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

Re: Closure Request
Macho Nacho State Com 010H
Incident Number NAPP2132756247
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 site assessment, excavation, and soil sampling activities performed at the Macho Nacho State Com 010H (Site, Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a crude oil flare fire at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, COG is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Number NAPP2132756247.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit M, Section 07, Township 24 South, Range 33 East, in Lea County, New Mexico (32.22551° N, 103.61708° W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On November 10, 2021, a heater swamped out, resulting in the release of approximately 0.5 barrels (bbls) of crude oil out of the flare, which also resulted in a fire on the well pad. No fluids were recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on November 10, 2021 and submitted a Release Notification Form C-141 (Form C-141) on November 23, 2021. The release was assigned Incident Number NAPP2132756247.

SITE CHARATERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) Well C-03565-POD 3, located approximately 8,134 feet northeast of the Site. The groundwater well has a reported depth to

groundwater greater than 100 feet bgs and an unknown total depth. Ground surface elevation at the groundwater well location is 3,639 feet above mean sea level (amsl), which is approximately 25 feet higher in elevation than the Site. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 2.18 miles northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

A reclamation closure criteria of 600 mg/kg chloride was applied to the top 4 feet 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 ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On November 29, 2021, WSP Inc. (WSP), a third-party environmental consusltant, completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Nine preliminary assessment soil samples (SS01 through SS09) were collected within and around the release extent at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary 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 BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (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 SS02 and SS05, collected within the release extent, indicated TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary samples SS01, SS03, SS04, collected within the release extent, and SS06 through SS09, collected outside of the release extent, indicated benzene, BTEX, TPH-

GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and confirmed the lateral extent of the release. Based on visible staining in the release area and laboratory analytical results for preliminary soil samples SS02 and SS05, additional remediation activities appeared to be warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On February 14, 2022, and August 22, 2022, WSP and Ensolum personnel, respectively, were at the Site to oversee delineation and excavation activities. Five boreholes (BH01/BH01A through BH05/BH05A) were advanced via hand auger within the release extent to assess the vertical extent of impacted soil. The boreholes were advanced to a depth of 2 feet bgs. Delineation soil samples were collected from each borehole at depths of 1-foot and 2 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations for the boreholes were logged on lithologic soil sampling logs, which are included in Appendix B. The delineation soil sample locations are depicted on Figure 3.

Upon completion of delineation activities, impacted soil was excavated from the release area as indicated by visible staining and laboratory analytical results for preliminary soil samples SS02 and SS05. Excavation activities, completed on pad, 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 a depth of 1-foot bgs. Photographic documentation of the excavation activities is included in Appendix C.

Following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the sidewalls and floor 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 FS05 were collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow depth of the excavation, sidewalls were incorporated into the floor samples. The soil samples were collected, 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 area measured approximately 947 square feet. A total of approximately 35 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil samples collected from boreholes BH01/BH01A through BH05/BH05A and excavation floor samples FS01 through FS05, collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the November 10, 2021, crude oil flare fire release. Laboratory analytical results for delineation soil samples and excavation soil samples, collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further

remediation was required. COG will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes these remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2132756247. The Form C-141 is included as 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	Lithologic Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Sample Notification
Appendix F	Final C-141

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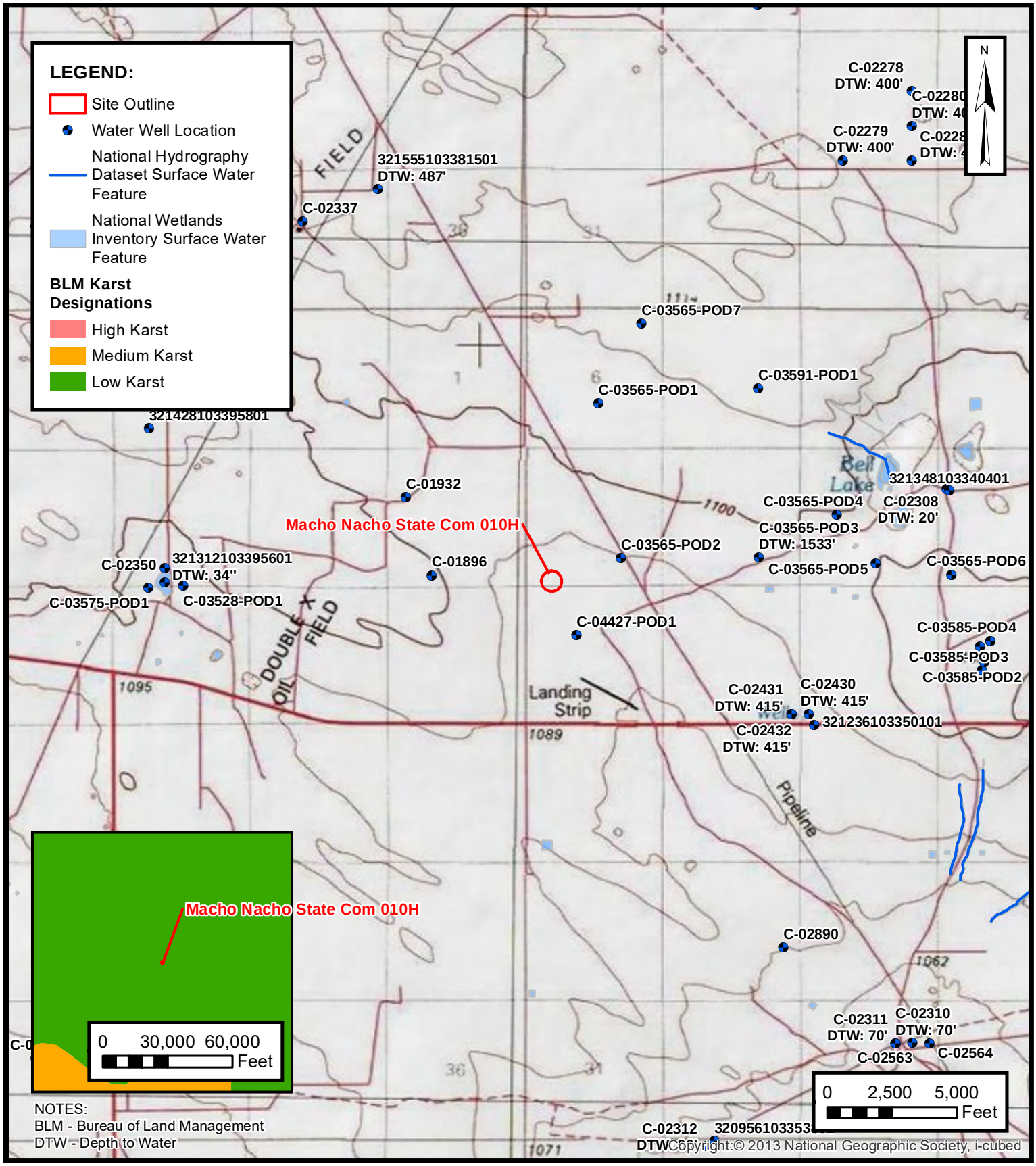
FIGURES



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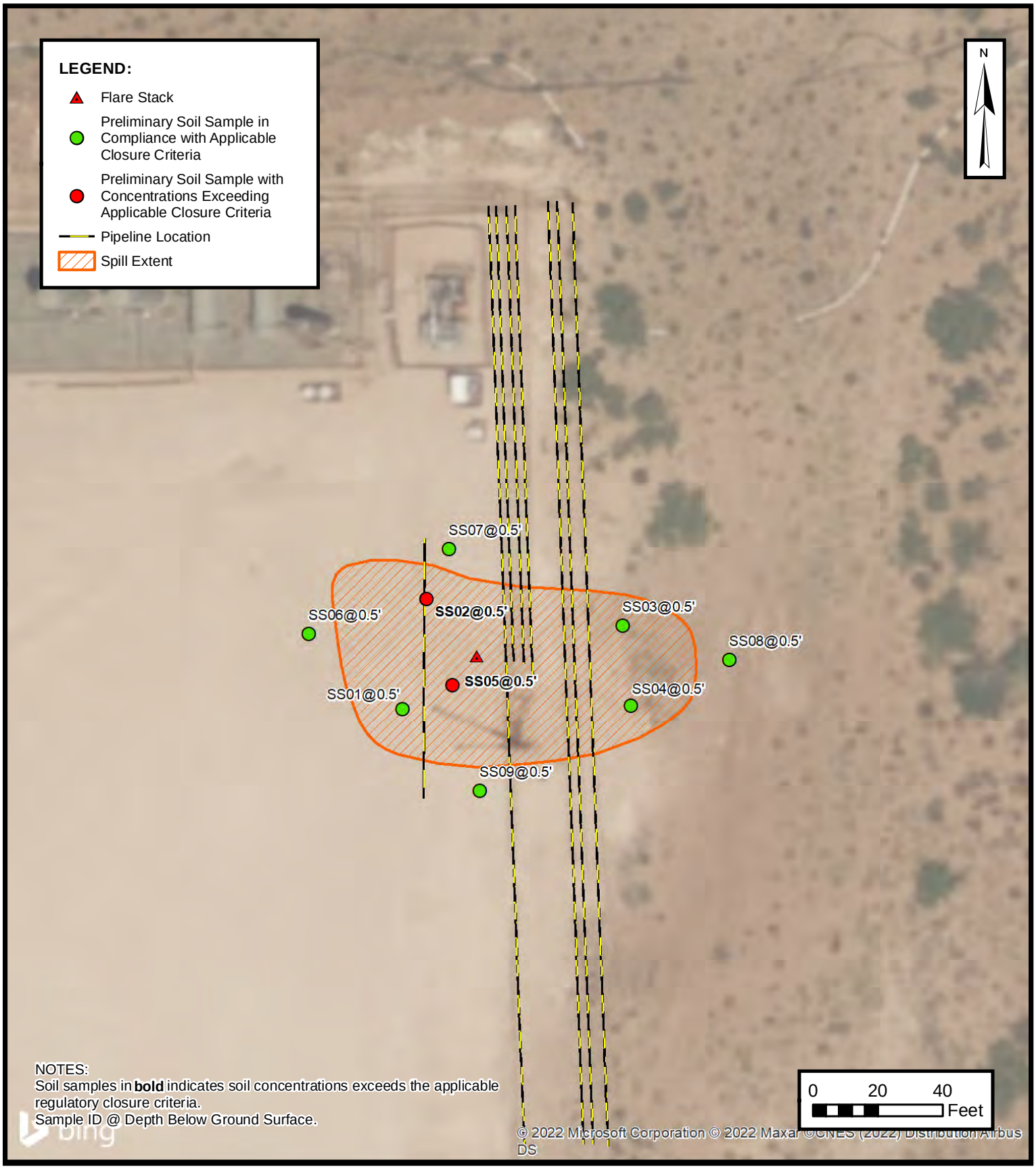
SITE RECEPTOR MAP

COG OPERATING, LLC
MACHO NACHO STATE COM 010H
Incident Number NAPP2132756247
Unit M, Sec 07, T24S, R33E
Lea County, New Mexico

FIGURE
1



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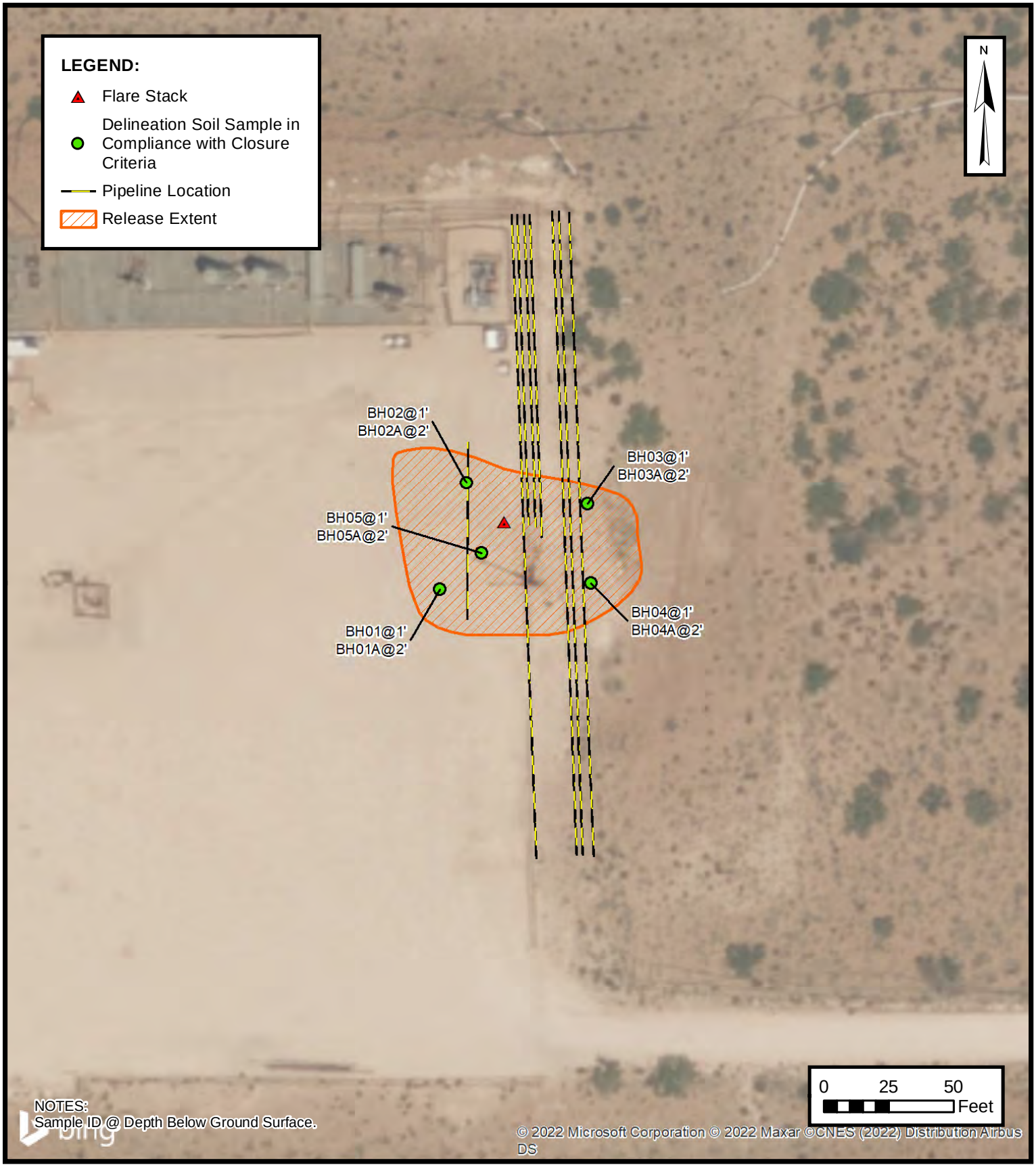
PRELIMINARY SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
MACHO NACHO STATE COM 010H
Incident Number NAPP2132756247
Unit M, Sec 07, T24S, R33E
Lea County, New Mexico

FIGURE

2



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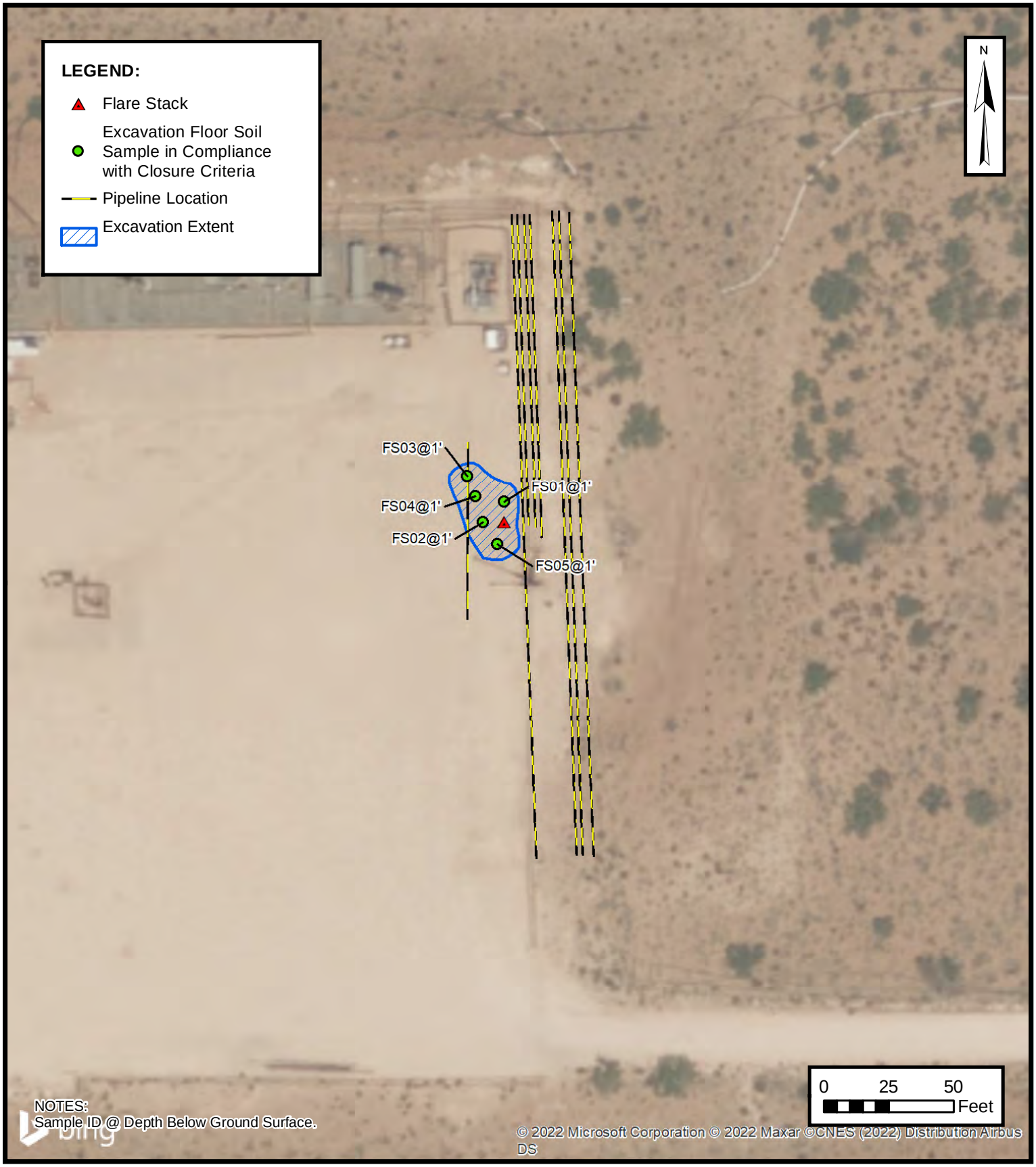
DELINEATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
MACHO NACHO STATE COM 010H
Incident Number NAPP2132756247
Unit M, Sec 07, T24S, R33E
Lea County, New Mexico

FIGURE

3



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EXCAVATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
MACHO NACHO STATE COM 010H
Incident Number NAPP2132756247
Unit M, Sec 07, T24S, R33E
Lea County, New Mexico

FIGURE
4

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Macho Nacho State Com 010H
COG Operating, LLC
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Assessment Soil Samples										
SS01	11/29/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99
SS02	11/29/2021	0.5	<0.00202	<0.00404	4,540	<50.0	<50.0	**4,540**	**4,540**	47.7
SS03	11/29/2021	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	<49.5
SS04	11/29/2021	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	<5.02
SS05	11/29/2021	0.5	<0.00199	<0.00398	3,760	<49.8	<49.8	**3,760**	**3,760**	56.7
SS06	11/29/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	172
SS07	11/29/2021	0.5	<0.00201	<0.00402	457	<49.8	<49.8	57.0	57.0	17.6
SS08	11/29/2021	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
SS09	11/29/2021	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	<4.96
Delineation Soil Samples										
BH01	02/14/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	42.0
BH01A	02/14/2022	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	24.5
BH02	02/14/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	28.6
BH02A	08/22/2022	2	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	22.4
BH03	02/14/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	13.3
BH03A	02/14/2022	2	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	5.01
BH04	02/14/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
BH04A	02/14/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
BH05	02/14/2022	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	13.6
BH05A	08/22/2022	2	<0.00202	<0.00403	<49.9	51.1	<49.9	51.1	51.1	8.15

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Macho Nacho State Com 010H
COG Operating, LLC
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Excavation Soil Samples										
FS01	08/22/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	8.97
FS02	08/22/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	9.11
FS03	08/22/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	25.8
FS04	08/22/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	13.7
FS05	08/22/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14.5

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 for Soils Impacted by a Release
Grey text represents samples that have been excavated

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APPENDIX A

Referenced Well Records

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 03565 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: EXP EXPLORATION

Primary Status:

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: INTERCONTINENTAL POTASH CORP

Contact: TOM COPE

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	509298	EXPL	2012-08-07	PMT	APR	C 03565	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03565 POD1				1	4	06	24S	33E	630871	3568316	ICP-083
C 03565 POD2				3	4	07	24S	33E	631156	3566515	ICP-084
C 03565 POD3				3	4	08	24S	33E	632763	3566546	ICP-085
C 03565 POD4				4	1	09	24S	33E	633672	3567057	ICP-086
C 03565 POD5				3	4	09	24S	33E	634135	3566496	ICP-87
C 03565 POD6				3	3	10	24S	33E	635022	3566373	ICP-089
C 03565 POD7				2	2	06	24S	33E	631361	3569250	ICP-090
C 03565 POD8				4	1	15	24S	33E	635485	3565610	ICP-092
C 03565 POD9				4	4	15	24S	33E	636430	3565005	ICP-093

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03565 POD3		3	4	08	24S	33E	632763	3566546

Driller License: 331 **Driller Company:** SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.

Driller Name:

Drill Start Date: 09/27/2012 **Drill Finish Date:** 10/21/2012 **Plug Date:**

Log File Date: 12/11/2012 **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 8.90 **Depth Well:** **Depth Water:** 1533 feet

Water Bearing Stratifications:	Top	Bottom	Description
	0	20	Other/Unknown
	20	55	Sandstone/Gravel/Conglomerate
	55	1227	Shale/Mudstone/Siltstone
	1227	1262	Other/Unknown
	1262	1295	Other/Unknown
	1295	1310	Other/Unknown
	1310	1330	Other/Unknown
	1330	1375	Other/Unknown
	1479	1489	Other/Unknown
	1489	1533	Other/Unknown

National Water Information System: Web Interface

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

Click to hideNews Bulletins

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

USGS 321312103395601 24S.32E.10.344333

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

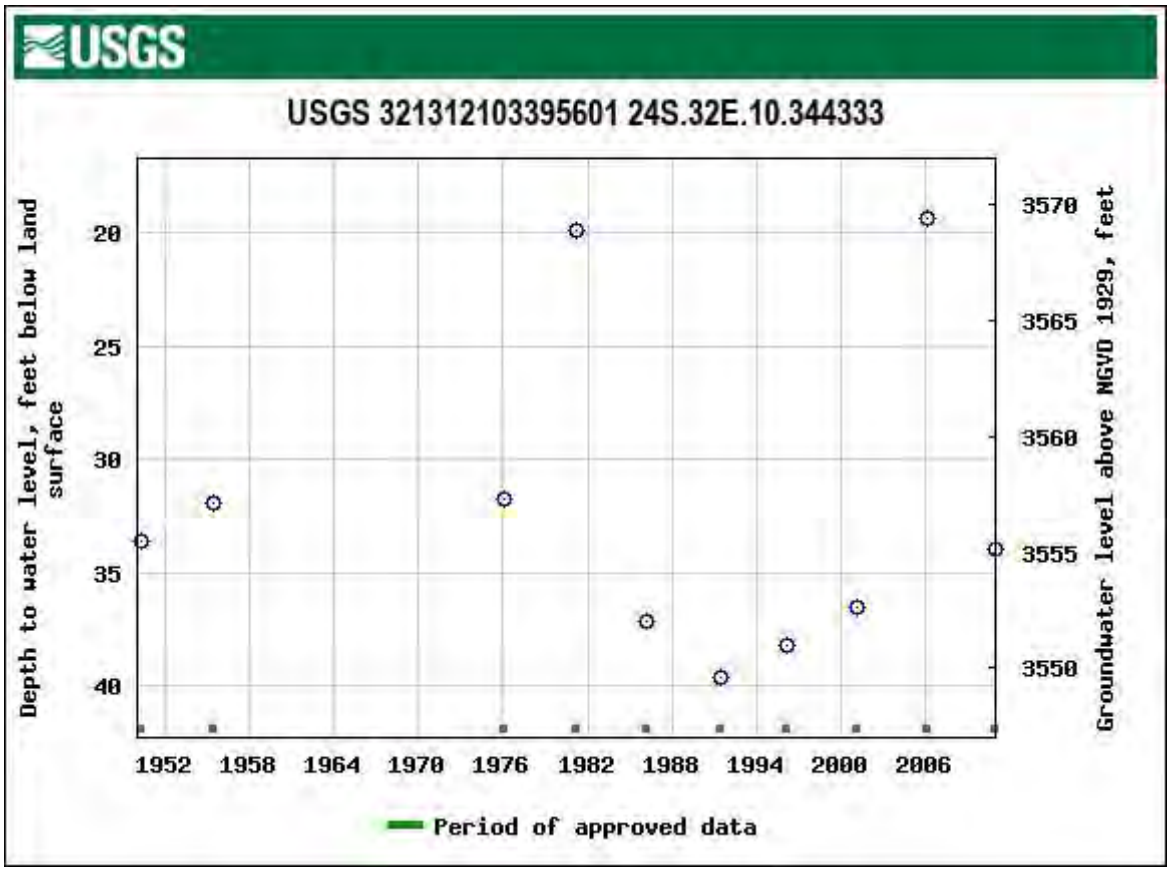
Latitude 32°13'30.4", Longitude 103°39'52.7" NAD83
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: 60 feet
Land surface altitude: 3,589.00 feet above NGVD29.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1950-04-13	2010-12-16	10
Revisions	Unavailable (site:0) (timeseries:0)		
Additional Data Sources	**Begin Date**	**End Date**	**Count**
Annual Water-Data Report (pdf) **offsite**	2011	2011	1

OPERATION:

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


USGS
USGS 321312103395601 24S.32E.10.344333
Depth to water level, feet below land surface
20
25
30
35
40
3570
3565
3560
3555
3550
Groundwater level above NGVD 1929, feet
1952
1958
1964
1970
1976
1982
1988
1994
2000
2006
Period of approved data

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APPENDIX B

Lithologic Soil Sampling Logs

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	Sample Name: **BH01**	Date: **02/14/2022**
	Site Name: **Macho Nacho State Com 010H**	
	Incident Number: **NAPP2132756247**	
	Job Number: 03D2024008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: **Hand Auger**
Coordinates: **32.2254797, -103.6171702**	Hole Diameter: 4"	Total Depth: **2 ft bgs**

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<179	1.0	N	BH01	1	1	SP-SM	SAND, brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain or odor.
D	<179	1.3	N	BH01A	2	2	SP-SM	SAA

TD @ 2 feet bgs

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	Sample Name: **BH02**	Date: **02/14/2022**
	Site Name: **Macho Nacho State Com 010H**	
	Incident Number: **NAPP2132756247**	
	Job Number: 03D2024008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: **Hand Auger**
Coordinates: **32.2255908, -103.6171373**	Hole Diameter: 4"	Total Depth: **2 ft bgs**

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<179	0.9	N	BH02	1	1	SP-SM	SAND, brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain or odor.
D	<179	0.7	N	BH02A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **BH03**	Date: **02/14/2022**
	Site Name: **Macho Nacho State Com 010H**	
	Incident Number: **NAPP2132756247**	
	Job Number: 03D2024008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: **Hand Auger**
Coordinates: **32.2255684, -103.6169878**	Hole Diameter: 4"	Total Depth: **2 ft bgs**

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<179	1.5	N	BH03	1	1	SP-SM	SAND, brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain or odor.
D	<179	1.6	N	BH03A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **BH04**	Date: **02/14/2022**
	Site Name: **Macho Nacho State Com 010H**	
	Incident Number: **NAPP2132756247**	
	Job Number: 03D2024008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: **Hand Auger**
Coordinates: **32.2254862, -103.6169824**	Hole Diameter: 4"	Total Depth: **2 ft bgs**

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<179	2.2	N	BH04	1	1	SP-SM	SAND, brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain or odor.
D	<179	1.8	N	BH04A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **BH05**	Date: **02/14/2022**
	Site Name: **Macho Nacho State Com 010H**	
	Incident Number: **NAPP2132756247**	
	Job Number: 03D2024008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: **Hand Auger**
Coordinates: **32.2255165, -103.6171186**	Hole Diameter: 4"	Total Depth: **2 ft bgs**

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<179	2.2	N	BH05	1	1	SP-SM	SAND, brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain or odor.
D	<179	2.5	N	BH05A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
COG Operating, LLC
Macho Nacho State Com 010H
Incident Number NAPP232756247

Photograph 1 Date: November 29, 2021
Description: View of release extent, facing northeast.

Photograph 2 Date: November 29, 2021
Description: View of flare area, facing northwest.

Photograph 3 Date: February 14, 2021
Description: View of delineation activities, facing east.

Photograph 4 Date: August 22, 2022
Description: View of final excavation extent, facing northwest.

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: 890-1653-1
Laboratory Sample Delivery Group: 31403720.000 Task 15.02
Client Project/Site: Macho Nacho State Com 010H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/9/2021 10:27:32 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Laboratory Job ID: 890-1653-1
SDG: 31403720.000 Task 15.02

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Job ID: 890-1653-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1653-1

Receipt
The samples were received on 11/29/2021 2:05 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 1.2°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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-13650 and analytical batch 880-14305 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS01 Lab Sample ID: 890-1653-1

Date Collected: 11/29/21 10:55 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/02/21 23:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/02/21 23:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/02/21 23:31	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		12/01/21 10:18	12/02/21 23:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/02/21 23:31	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		12/01/21 10:18	12/02/21 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*12/01/21 10:18*	*12/02/21 23:31*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*12/01/21 10:18*	*12/02/21 23:31*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 14:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 14:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*12/03/21 08:25*	*12/03/21 14:55*	*1*
o-Terphenyl	*82*		*70 - 130*	*12/03/21 08:25*	*12/03/21 14:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			12/09/21 05:59	1

Client Sample ID: SS02 Lab Sample ID: 890-1653-2

Date Collected: 11/29/21 10:57 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/02/21 23:52	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/01/21 10:18	12/02/21 23:52	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/01/21 10:18	12/02/21 23:52	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/01/21 10:18	12/02/21 23:52	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/01/21 10:18	12/02/21 23:52	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/01/21 10:18	12/02/21 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*12/01/21 10:18*	*12/02/21 23:52*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1
SDG: 31403720.000 Task 15.02

Client Sample ID: SS02

Lab Sample ID: 890-1653-2
Matrix: Solid
Date Collected: 11/29/21 10:57
Date Received: 11/29/21 14:05
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*12/01/21 10:18*	*12/02/21 23:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**4540**		50.0		mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 15:16	1
Diesel Range Organics (Over C10-C28)	**4540**		50.0		mg/Kg		12/03/21 08:25	12/03/21 15:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*12/03/21 08:25*	*12/03/21 15:16*	*1*
o-Terphenyl	*77*		*70 - 130*	*12/03/21 08:25*	*12/03/21 15:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**47.7**		5.00		mg/Kg			12/09/21 06:05	1

Client Sample ID: SS03

Lab Sample ID: 890-1653-3
Matrix: Solid
Date Collected: 11/29/21 11:04
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/03/21 00:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/03/21 00:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/03/21 00:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/01/21 10:18	12/03/21 00:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/03/21 00:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/01/21 10:18	12/03/21 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*12/01/21 10:18*	*12/03/21 00:12*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*12/01/21 10:18*	*12/03/21 00:12*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/06/21 15:44	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS03 Lab Sample ID: 890-1653-3

Date Collected: 11/29/21 11:04 **Matrix: Solid**
Date Received: 11/29/21 14:05
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 15:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 15:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*12/03/21 08:25*	*12/03/21 15:38*	*1*
o-Terphenyl	*74*		*70 - 130*	*12/03/21 08:25*	*12/03/21 15:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			12/09/21 06:12	1

Client Sample ID: SS04 Lab Sample ID: 890-1653-4

Date Collected: 11/29/21 11:01 **Matrix: Solid**
Date Received: 11/29/21 14:05
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/01/21 10:18	12/03/21 00:32	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		12/01/21 10:18	12/03/21 00:32	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		12/01/21 10:18	12/03/21 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*12/01/21 10:18*	*12/03/21 00:32*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*12/01/21 10:18*	*12/03/21 00:32*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 16:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 16:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*43*	*S1-*	*70 - 130*	*12/03/21 08:25*	*12/03/21 16:21*	*1*
o-Terphenyl	*77*		*70 - 130*	*12/03/21 08:25*	*12/03/21 16:21*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS04 Lab Sample ID: 890-1653-4

Date Collected: 11/29/21 11:01 **Matrix: Solid**
Date Received: 11/29/21 14:05
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/Kg			12/09/21 06:32	1

Client Sample ID: SS05 Lab Sample ID: 890-1653-5

Date Collected: 11/29/21 11:10 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/03/21 00:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/03/21 00:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/03/21 00:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/01/21 10:18	12/03/21 00:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/03/21 00:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/01/21 10:18	12/03/21 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*12/01/21 10:18*	*12/03/21 00:53*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*12/01/21 10:18*	*12/03/21 00:53*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**3760**		49.8		mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/03/21 08:25	12/03/21 16:43	1
Diesel Range Organics (Over C10-C28)	**3760**		49.8		mg/Kg		12/03/21 08:25	12/03/21 16:43	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/03/21 08:25	12/03/21 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*12/03/21 08:25*	*12/03/21 16:43*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*12/03/21 08:25*	*12/03/21 16:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.7**		4.97		mg/Kg			12/09/21 06:39	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS06 Lab Sample ID: 890-1653-6

Date Collected: 11/29/21 11:37 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/03/21 01:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/03/21 01:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/03/21 01:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/01/21 10:18	12/03/21 01:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/01/21 10:18	12/03/21 01:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/01/21 10:18	12/03/21 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*12/01/21 10:18*	*12/03/21 01:13*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*12/01/21 10:18*	*12/03/21 01:13*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 17:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 17:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/03/21 08:25	12/03/21 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*12/03/21 08:25*	*12/03/21 17:05*	*1*
o-Terphenyl	*72*		*70 - 130*	*12/03/21 08:25*	*12/03/21 17:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**172**		4.95		mg/Kg			12/09/21 06:45	1

Client Sample ID: SS07 Lab Sample ID: 890-1653-7

Date Collected: 11/29/21 11:39 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/03/21 01:34	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/01/21 10:18	12/03/21 01:34	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/01/21 10:18	12/03/21 01:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/01/21 10:18	12/03/21 01:34	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/01/21 10:18	12/03/21 01:34	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/01/21 10:18	12/03/21 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/01/21 10:18*	*12/03/21 01:34*	*1*

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS07 Lab Sample ID: 890-1653-7

Date Collected: 11/29/21 11:39 **Matrix: Solid**
Date Received: 11/29/21 14:05
Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*12/01/21 10:18*	*12/03/21 01:34*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**57**		49.8	mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/03/21 08:25	12/03/21 17:27	1
Diesel Range Organics (Over C10-C28)	**57**		49.8	mg/Kg		12/03/21 08:25	12/03/21 17:27	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/03/21 08:25	12/03/21 17:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*71*		*70 - 130*	*12/03/21 08:25*	*12/03/21 17:27*	*1*
o-Terphenyl	*71*		*70 - 130*	*12/03/21 08:25*	*12/03/21 17:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.6**		4.99	mg/Kg			12/09/21 06:52	1

Client Sample ID: SS08 Lab Sample ID: 890-1653-8

Date Collected: 11/29/21 11:42 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/03/21 01:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/01/21 10:18	12/03/21 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*12/01/21 10:18*	*12/03/21 01:54*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*12/01/21 10:18*	*12/03/21 01:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/06/21 15:44	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS08 Lab Sample ID: 890-1653-8

Date Collected: 11/29/21 11:42 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/03/21 08:25	12/03/21 17:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 17:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*12/03/21 08:25*	*12/03/21 17:48*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*12/03/21 08:25*	*12/03/21 17:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/09/21 06:59	1

Client Sample ID: SS09 Lab Sample ID: 890-1653-9

Date Collected: 11/29/21 11:44 **Matrix: Solid**
Date Received: 11/29/21 14:05
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		12/01/21 10:18	12/03/21 02:14	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/01/21 10:18	12/03/21 02:14	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/01/21 10:18	12/03/21 02:14	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/01/21 10:18	12/03/21 02:14	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/01/21 10:18	12/03/21 02:14	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/01/21 10:18	12/03/21 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*12/01/21 10:18*	*12/03/21 02:14*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*12/01/21 10:18*	*12/03/21 02:14*	*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			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 18:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 18:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*12/03/21 08:25*	*12/03/21 18:09*	*1*
o-Terphenyl	*75*		*70 - 130*	*12/03/21 08:25*	*12/03/21 18:09*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1
SDG: 31403720.000 Task 15.02

Client Sample ID: SS09
Date Collected: 11/29/21 11:44
Date Received: 11/29/21 14:05
Sample Depth: 0.5

Lab Sample ID: 890-1653-9
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U F1	4.96		mg/Kg			12/09/21 07:05	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1653-1	SS01	126	100
890-1653-1 MS	SS01	149 S1+	81
890-1653-1 MSD	SS01	119	102
890-1653-2	SS02	114	104
890-1653-3	SS03	121	101
890-1653-4	SS04	117	97
890-1653-5	SS05	138 S1+	103
890-1653-6	SS06	122	100
890-1653-7	SS07	124	99
890-1653-8	SS08	114	84
890-1653-9	SS09	113	95
LCS 880-13446/1-A	Lab Control Sample	112	99
LCSD 880-13446/2-A	Lab Control Sample Dup	111	96
MB 880-13446/5-A	Method Blank	122	99
MB 880-13455/5-A	Method Blank	123	99

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)
890-1653-1	SS01	82	82
890-1653-2	SS02	81	77
890-1653-3	SS03	78	74
890-1653-4	SS04	43 S1-	77
890-1653-5	SS05	72	67 S1-
890-1653-6	SS06	76	72
890-1653-7	SS07	71	71
890-1653-8	SS08	68 S1-	66 S1-
890-1653-9	SS09	77	75
890-1658-A-1-D MS	Matrix Spike	71	65 S1-
890-1658-A-1-E MSD	Matrix Spike Duplicate	72	65 S1-
LCS 880-13833/2-A	Lab Control Sample	64 S1-	61 S1-
LCSD 880-13833/3-A	Lab Control Sample Dup	69 S1-	68 S1-
MB 880-13833/1-A	Method Blank	97	97

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13446/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13446**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/02/21 23:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/02/21 23:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/02/21 23:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/01/21 10:18	12/02/21 23:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/01/21 10:18	12/02/21 23:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/01/21 10:18	12/02/21 23:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*12/01/21 10:18*	*12/02/21 23:02*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*12/01/21 10:18*	*12/02/21 23:02*	*1*

Lab Sample ID: LCS 880-13446/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13446**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09337		mg/Kg		93	70 - 130		
Toluene			0.100	0.09366		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09097		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1803		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09086		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-13446/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13446**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08752		mg/Kg		88	70 - 130	6	35
Toluene			0.100	0.09320		mg/Kg		93	70 - 130	0	35
Ethylbenzene			0.100	0.09679		mg/Kg		97	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1908		mg/Kg		95	70 - 130	6	35
o-Xylene			0.100	0.09434		mg/Kg		94	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1653-1 MS **Client Sample ID: SS01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13446**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.100	0.08598		mg/Kg		85	70 - 130		
Toluene	<0.00199	U	0.100	0.07857		mg/Kg		78	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

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

Lab Sample ID: 890-1653-1 MS **Client Sample ID: SS01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13446**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.100	0.08168		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1022	F1	mg/Kg		50	70 - 130
o-Xylene	<0.00199	U	0.100	0.08337		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*149*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*

Lab Sample ID: 890-1653-1 MSD **Client Sample ID: SS01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13446**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07355		mg/Kg		73	70 - 130	16	35
Toluene	<0.00199	U	0.100	0.07570		mg/Kg		76	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.100	0.07810		mg/Kg		78	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.09868	F1	mg/Kg		48	70 - 130	3	35
o-Xylene	<0.00199	U	0.100	0.07790		mg/Kg		76	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 880-13455/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13722 **Prep Batch: 13455**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/01/21 11:07	12/02/21 11:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/01/21 11:07	12/02/21 11:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/01/21 11:07	12/02/21 11:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/01/21 11:07	12/02/21 11:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/01/21 11:07	12/02/21 11:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/01/21 11:07	12/02/21 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*12/01/21 11:07*	*12/02/21 11:28*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*12/01/21 11:07*	*12/02/21 11:28*	*1*

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

Lab Sample ID: MB 880-13833/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13850 **Prep Batch: 13833**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 10:36	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

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

Lab Sample ID: MB 880-13833/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13850 **Prep Batch: 13833**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 10:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/03/21 08:25	12/03/21 10:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*12/03/21 08:25*	*12/03/21 10:36*	*1*
o-Terphenyl	*97*		*70 - 130*	*12/03/21 08:25*	*12/03/21 10:36*	*1*

Lab Sample ID: LCS 880-13833/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13850 **Prep Batch: 13833**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	839.3		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	712.0		mg/Kg		71	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*61*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-13833/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13850 **Prep Batch: 13833**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	831.2		mg/Kg		83	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	800.1		mg/Kg		80	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*69*	*S1-*	*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

Lab Sample ID: 890-1658-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13850 **Prep Batch: 13833**

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	821.0		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	997	827.5		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

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

Lab Sample ID: 890-1658-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 13850 **Prep Batch: 13833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	830.7		mg/Kg		83	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	837.0		mg/Kg		84	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*72*		*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13650/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 14305

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/09/21 05:12	1

Lab Sample ID: LCS 880-13650/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 14305

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	268.2		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-13650/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 14305

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	268.3		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-1653-9 MS **Client Sample ID: SS09**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 14305

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<4.96	U F1	248	284.4	F1	mg/Kg		115	90 - 110		

Lab Sample ID: 890-1653-9 MSD **Client Sample ID: SS09**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 14305

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.96	U F1	248	286.7	F1	mg/Kg		116	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

GC VOA

Prep Batch: 13446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	5035	
890-1653-2	SS02	Total/NA	Solid	5035	
890-1653-3	SS03	Total/NA	Solid	5035	
890-1653-4	SS04	Total/NA	Solid	5035	
890-1653-5	SS05	Total/NA	Solid	5035	
890-1653-6	SS06	Total/NA	Solid	5035	
890-1653-7	SS07	Total/NA	Solid	5035	
890-1653-8	SS08	Total/NA	Solid	5035	
890-1653-9	SS09	Total/NA	Solid	5035	
MB 880-13446/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13446/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13446/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1653-1 MS	SS01	Total/NA	Solid	5035	
890-1653-1 MSD	SS01	Total/NA	Solid	5035	

Prep Batch: 13455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13455/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 13722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8021B	13446
890-1653-2	SS02	Total/NA	Solid	8021B	13446
890-1653-3	SS03	Total/NA	Solid	8021B	13446
890-1653-4	SS04	Total/NA	Solid	8021B	13446
890-1653-5	SS05	Total/NA	Solid	8021B	13446
890-1653-6	SS06	Total/NA	Solid	8021B	13446
890-1653-7	SS07	Total/NA	Solid	8021B	13446
890-1653-8	SS08	Total/NA	Solid	8021B	13446
890-1653-9	SS09	Total/NA	Solid	8021B	13446
MB 880-13446/5-A	Method Blank	Total/NA	Solid	8021B	13446
MB 880-13455/5-A	Method Blank	Total/NA	Solid	8021B	13455
LCS 880-13446/1-A	Lab Control Sample	Total/NA	Solid	8021B	13446
LCSD 880-13446/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13446
890-1653-1 MS	SS01	Total/NA	Solid	8021B	13446
890-1653-1 MSD	SS01	Total/NA	Solid	8021B	13446

Analysis Batch: 13868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	Total BTEX	
890-1653-2	SS02	Total/NA	Solid	Total BTEX	
890-1653-3	SS03	Total/NA	Solid	Total BTEX	
890-1653-4	SS04	Total/NA	Solid	Total BTEX	
890-1653-5	SS05	Total/NA	Solid	Total BTEX	
890-1653-6	SS06	Total/NA	Solid	Total BTEX	
890-1653-7	SS07	Total/NA	Solid	Total BTEX	
890-1653-8	SS08	Total/NA	Solid	Total BTEX	
890-1653-9	SS09	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

GC Semi VOA

Prep Batch: 13833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8015NM Prep	
890-1653-2	SS02	Total/NA	Solid	8015NM Prep	
890-1653-3	SS03	Total/NA	Solid	8015NM Prep	
890-1653-4	SS04	Total/NA	Solid	8015NM Prep	
890-1653-5	SS05	Total/NA	Solid	8015NM Prep	
890-1653-6	SS06	Total/NA	Solid	8015NM Prep	
890-1653-7	SS07	Total/NA	Solid	8015NM Prep	
890-1653-8	SS08	Total/NA	Solid	8015NM Prep	
890-1653-9	SS09	Total/NA	Solid	8015NM Prep	
MB 880-13833/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13833/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13833/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1658-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1658-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8015B NM	13833
890-1653-2	SS02	Total/NA	Solid	8015B NM	13833
890-1653-3	SS03	Total/NA	Solid	8015B NM	13833
890-1653-4	SS04	Total/NA	Solid	8015B NM	13833
890-1653-5	SS05	Total/NA	Solid	8015B NM	13833
890-1653-6	SS06	Total/NA	Solid	8015B NM	13833
890-1653-7	SS07	Total/NA	Solid	8015B NM	13833
890-1653-8	SS08	Total/NA	Solid	8015B NM	13833
890-1653-9	SS09	Total/NA	Solid	8015B NM	13833
MB 880-13833/1-A	Method Blank	Total/NA	Solid	8015B NM	13833
LCS 880-13833/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13833
LCSD 880-13833/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13833
890-1658-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	13833
890-1658-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13833

Analysis Batch: 14112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8015 NM	
890-1653-2	SS02	Total/NA	Solid	8015 NM	
890-1653-3	SS03	Total/NA	Solid	8015 NM	
890-1653-4	SS04	Total/NA	Solid	8015 NM	
890-1653-5	SS05	Total/NA	Solid	8015 NM	
890-1653-6	SS06	Total/NA	Solid	8015 NM	
890-1653-7	SS07	Total/NA	Solid	8015 NM	
890-1653-8	SS08	Total/NA	Solid	8015 NM	
890-1653-9	SS09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 13650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Soluble	Solid	DI Leach	
890-1653-2	SS02	Soluble	Solid	DI Leach	
890-1653-3	SS03	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

HPLC/IC (Continued)

Leach Batch: 13650 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-4	SS04	Soluble	Solid	DI Leach	
890-1653-5	SS05	Soluble	Solid	DI Leach	
890-1653-6	SS06	Soluble	Solid	DI Leach	
890-1653-7	SS07	Soluble	Solid	DI Leach	
890-1653-8	SS08	Soluble	Solid	DI Leach	
890-1653-9	SS09	Soluble	Solid	DI Leach	
MB 880-13650/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13650/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13650/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1653-9 MS	SS09	Soluble	Solid	DI Leach	
890-1653-9 MSD	SS09	Soluble	Solid	DI Leach	

Analysis Batch: 14305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Soluble	Solid	300.0	13650
890-1653-2	SS02	Soluble	Solid	300.0	13650
890-1653-3	SS03	Soluble	Solid	300.0	13650
890-1653-4	SS04	Soluble	Solid	300.0	13650
890-1653-5	SS05	Soluble	Solid	300.0	13650
890-1653-6	SS06	Soluble	Solid	300.0	13650
890-1653-7	SS07	Soluble	Solid	300.0	13650
890-1653-8	SS08	Soluble	Solid	300.0	13650
890-1653-9	SS09	Soluble	Solid	300.0	13650
MB 880-13650/1-A	Method Blank	Soluble	Solid	300.0	13650
LCS 880-13650/2-A	Lab Control Sample	Soluble	Solid	300.0	13650
LCSD 880-13650/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13650
890-1653-9 MS	SS09	Soluble	Solid	300.0	13650
890-1653-9 MSD	SS09	Soluble	Solid	300.0	13650

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS01 Lab Sample ID: 890-1653-1

Date Collected: 11/29/21 10:55 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/02/21 23:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 14:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 05:59	CH	XEN MID

Client Sample ID: SS02 Lab Sample ID: 890-1653-2

Date Collected: 11/29/21 10:57 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/02/21 23:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 15:16	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:05	CH	XEN MID

Client Sample ID: SS03 Lab Sample ID: 890-1653-3

Date Collected: 11/29/21 11:04 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 00:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 15:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:12	CH	XEN MID

Client Sample ID: SS04 Lab Sample ID: 890-1653-4

Date Collected: 11/29/21 11:01 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 00:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS04 Lab Sample ID: 890-1653-4

Date Collected: 11/29/21 11:01 **Matrix: Solid**
Date Received: 11/29/21 14:05

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			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 16:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:32	CH	XEN MID

Client Sample ID: SS05 Lab Sample ID: 890-1653-5

Date Collected: 11/29/21 11:10 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 00:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 16:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:39	CH	XEN MID

Client Sample ID: SS06 Lab Sample ID: 890-1653-6

Date Collected: 11/29/21 11:37 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 01:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 17:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:45	CH	XEN MID

Client Sample ID: SS07 Lab Sample ID: 890-1653-7

Date Collected: 11/29/21 11:39 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 01:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 17:27	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS07 Lab Sample ID: 890-1653-7

Date Collected: 11/29/21 11:39 **Matrix: Solid**
Date Received: 11/29/21 14:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:52	CH	XEN MID

Client Sample ID: SS08 Lab Sample ID: 890-1653-8

Date Collected: 11/29/21 11:42 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 01:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 17:48	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:59	CH	XEN MID

Client Sample ID: SS09 Lab Sample ID: 890-1653-9

Date Collected: 11/29/21 11:44 **Matrix: Solid**
Date Received: 11/29/21 14:05

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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 02:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 18:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 07:05	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1653-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1
SDG: 31403720.000 Task 15.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1653-1	SS01	Solid	11/29/21 10:55	11/29/21 14:05	0.5
890-1653-2	SS02	Solid	11/29/21 10:57	11/29/21 14:05	0.5
890-1653-3	SS03	Solid	11/29/21 11:04	11/29/21 14:05	0.5
890-1653-4	SS04	Solid	11/29/21 11:01	11/29/21 14:05	0.5
890-1653-5	SS05	Solid	11/29/21 11:10	11/29/21 14:05	0.5
890-1653-6	SS06	Solid	11/29/21 11:37	11/29/21 14:05	0.5
890-1653-7	SS07	Solid	11/29/21 11:39	11/29/21 14:05	0.5
890-1653-8	SS08	Solid	11/29/21 11:42	11/29/21 14:05	0.5
890-1653-9	SS09	Solid	11/29/21 11:44	11/29/21 14:05	0.5

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Shipping/Receiving	Phone:	Kramer, Jessica E-Mail jessica kramer@eurofinset.com	State of Origin New Mexico	890-527 1 Page Page 1 of 1
Company Eurofins Xenco		Accreditations Required (See note) NELAP - Louisiana NELAP - Texas		Job #: 890-1653-1
Address 1211 W Florida Ave	Due Date Requested 12/3/2021	Analysis Requested		Preservation Codes
City Midland	TAT Requested (days)			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:
State, Zip. TX 79701				
Phone 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name Macho Nacho State Com 010H	Project #: 89000048			
Site:	SSOW#:			

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:										
SS01 (890-1653-1)	11/29/21	10 55 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-1653-2)	11/29/21	10 57 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-1653-3)	11/29/21	11 04 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-1653-4)	11/29/21	11 01 Mountain		Solid			X	X	X	X	X	1	
SS05 (890-1653-5)	11/29/21	11 10 Mountain		Solid			X	X	X	X	X	1	
SS06 (890-1653-6)	11/29/21	11 37 Mountain		Solid			X	X	X	X	X	1	
SS07 (890-1653-7)	11/29/21	11 39 Mountain		Solid			X	X	X	X	X	1	
SS08 (890-1653-8)	11/29/21	11 42 Mountain		Solid			X	X	X	X	X	1	
SS09 (890-1653-9)	11/29/21	11 44 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time.	Method of Shipment:

	Relinquished by	Date/Time.	Company	Received by	Date/Time	Company
1	Cle Cup 11-29-21			J Kramer	11-30-21	
2	Relinquished by	Date/Time	Company	Received by	Date/Time 1140	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time:	Company

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1653-1
SDG Number: 31403720.000 Task 15.02

Login Number: 1653
List Number: 1
Creator: Olivas, Nathaniel

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: 890-1653-1
SDG Number: 31403720.000 Task 15.02

Login Number: 1653
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/30/21 11:54 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1956-1
Laboratory Sample Delivery Group: 31403720.00
Client Project/Site: Macho Nacho State Com 010h

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/25/2022 2:58:06 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: Macho Nacho State Com 010h

Laboratory Job ID: 890-1956-1
SDG: 31403720.00

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Job ID: 890-1956-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1956-1

Receipt
The sample was received on 2/16/2022 11:06 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-11400-A-1-F MSD). Evidence of matrix interferences is not obvious.

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

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: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

Client Sample ID: SS07

Date Collected: 02/14/22 12:10
Date Received: 02/16/22 11:06
Sample Depth: 0.5

Lab Sample ID: 890-1956-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 06:05	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/24/22 09:39	02/25/22 06:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/24/22 09:39	02/25/22 06:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*02/24/22 09:39*	*02/25/22 06:05*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/24/22 09:39*	*02/25/22 06:05*	*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 13:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**212**		49.9		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	<49.9	U	49.9		mg/Kg		02/17/22 11:56	02/19/22 21:21	1
Diesel Range Organics (Over C10-C28)	**212**		49.9		mg/Kg		02/17/22 11:56	02/19/22 21:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/17/22 11:56	02/19/22 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*02/17/22 11:56*	*02/19/22 21:21*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/17/22 11:56*	*02/19/22 21:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**43.3**		4.99		mg/Kg			02/21/22 20:44	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

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)
880-11351-A-1-C MS	Matrix Spike	101	99
880-11351-A-1-D MSD	Matrix Spike Duplicate	104	100
890-1956-1	SS07	102	99
LCS 880-20192/1-A	Lab Control Sample	102	99
LCSD 880-20192/2-A	Lab Control Sample Dup	104	101
MB 880-19723/5-A	Method Blank	99	95
MB 880-20192/5-A	Method Blank	98	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11400-A-1-E MS	Matrix Spike	76	76
880-11400-A-1-F MSD	Matrix Spike Duplicate	69 S1-	69 S1-
890-1956-1	SS07	73	72

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)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-19690/2-A	Lab Control Sample	100	108
LCSD 880-19690/3-A	Lab Control Sample Dup	105	112
MB 880-19690/1-A	Method Blank	88	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*

Lab Sample ID: MB 880-20192/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20192

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 09:39	02/24/22 22:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/24/22 09:39*	*02/24/22 22:54*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/24/22 09:39*	*02/24/22 22:54*	*1*

Lab Sample ID: LCS 880-20192/1-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1094		mg/Kg		109	70 - 130		
Toluene			0.100	0.1080		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1082		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2226		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1088		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-20192/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1056		mg/Kg		106	70 - 130	4	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

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

Lab Sample ID: LCSD 880-20192/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1044		mg/Kg		104	70 - 130	3	35
Ethylbenzene			0.100	0.1037		mg/Kg		104	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2138		mg/Kg		107	70 - 130	4	35
o-Xylene			0.100	0.1055		mg/Kg		105	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-11351-A-1-C MS
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20192

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0996	0.1030		mg/Kg		103	70 - 130
Toluene	<0.00199	U	0.0996	0.1018		mg/Kg		102	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.1002		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2090		mg/Kg		105	70 - 130
o-Xylene	<0.00199	U	0.0996	0.1073		mg/Kg		108	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-11351-A-1-D MSD
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20192

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.1114		mg/Kg		112	70 - 130	8	35
Toluene	<0.00199	U	0.0998	0.1105		mg/Kg		111	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.0998	0.1094		mg/Kg		110	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2279		mg/Kg		114	70 - 130	9	35
o-Xylene	<0.00199	U	0.0998	0.1154		mg/Kg		116	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-19690/1-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19690

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		02/17/22 11:56	02/19/22 12:29	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

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

Lab Sample ID: MB 880-19690/1-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19690

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/17/22 11:56	02/19/22 12:29	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/17/22 11:56	02/19/22 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/17/22 11:56*	*02/19/22 12:29*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/17/22 11:56*	*02/19/22 12:29*	*1*

Lab Sample ID: LCS 880-19690/2-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19690

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	961.8		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	931.0		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-19690/3-A
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19690

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	972.9		mg/Kg		97	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	918.4		mg/Kg		92	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

Lab Sample ID: 880-11400-A-1-E MS
Matrix: Solid
Analysis Batch: 19863

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19690

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	1155		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	110		1000	1036		mg/Kg		93	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*76*		*70 - 130*

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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

Lab Sample ID: 880-11400-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19863 — **Prep Batch: 19690**

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	1159		mg/Kg		115	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	110		998	943.7		mg/Kg		84	70 - 130	9	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*69*	*S1-*	*70 - 130*
o-Terphenyl	*69*	*S1-*	*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: 880-11403-A-1-B MS — **Client Sample ID: Matrix Spike**
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	2530		5000	7764		mg/Kg		105	90 - 110		

Lab Sample ID: 880-11403-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
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	2530		5000	7955		mg/Kg		108	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8021B	20192
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
MB 880-20192/5-A	Method Blank	Total/NA	Solid	8021B	20192
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	8021B	20192
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20192
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	20192
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20192

Prep Batch: 20192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	5035	
MB 880-20192/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-19690/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19690/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19690/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11400-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11400-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8015B NM	19690
MB 880-19690/1-A	Method Blank	Total/NA	Solid	8015B NM	19690
LCS 880-19690/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19690
LCSD 880-19690/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19690
880-11400-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	19690
880-11400-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19690

Analysis Batch: 19991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	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	
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	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
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	19804
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19804

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

Client Sample ID: SS07
Date Collected: 02/14/22 12:10
Date Received: 02/16/22 11:06

Lab Sample ID: 890-1956-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20184	02/25/22 06:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20327	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19991	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19690	02/17/22 11:56	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/19/22 21:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 20:44	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. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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. Job ID: 890-1956-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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: Macho Nacho State Com 010h

Job ID: 890-1956-1
SDG: 31403720.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1956-1	SS07	Solid	02/14/22 12:10	02/16/22 11:06	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: _____

www.xenco.com Page 1 of 1

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:	Macho Nacho State Com 010H	Turn Around	
Project Number:	31403720.00	Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.1e/2.2	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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)
SS07	S	02/14/22	12:10	0.5	1	X	X	X

890-1956 Chain of Custody

Work Order Notes

TAT starts the day recevied by the lab, if received by 4.30pm

Sample Comments

DISCRETE

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 P Benner	Client Rep	2.16.22 1106	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 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1956-1
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: Macho Nacho State Com 010h	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:										
SS07 (890-1956-1)	2/14/22	12 10 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: Cruz Cruz 2-16-22	Date/Time	Company	Received by: J 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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1956-1
SDG Number: 31403720.00

Login Number: 1956
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: 890-1956-1
SDG Number: 31403720.00

Login Number: 1956
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1957-1
Laboratory Sample Delivery Group: 31403720.00
Client Project/Site: Macho Nacho State Com 010h

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/28/2022 7:02:45 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: Macho Nacho State Com 010h

Laboratory Job ID: 890-1957-1
SDG: 31403720.00

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD 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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Job ID: 890-1957-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1957-1

Receipt
The samples were received on 2/16/2022 11:05 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 880-19726 and analytical batch 880-19783 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 laboratory control sample (LCS) associated with preparation batch 880-19786 and analytical batch 880-19782 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-19786/2-A), (LCSD 880-19786/3-A), (890-1957-A-1-C MS) and (890-1957-A-1-D MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-19727/3-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-19786 and analytical batch 880-19782 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH01 Lab Sample ID: 890-1957-1

Date Collected: 02/14/22 13:42 **Matrix: Solid**
Date Received: 02/16/22 11:05
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 14:00	02/20/22 01:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/18/22 14:00	02/20/22 01:22	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/18/22 14:00	02/20/22 01:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/18/22 14:00	02/20/22 01:22	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/18/22 14:00	02/20/22 01:22	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/18/22 14:00	02/20/22 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/18/22 14:00*	*02/20/22 01:22*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/18/22 14:00*	*02/20/22 01:22*	*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			02/21/22 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/22 17:26	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 08:34	02/18/22 10:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0		mg/Kg		02/18/22 08:34	02/18/22 10:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 10:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*02/18/22 08:34*	*02/18/22 10:48*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/18/22 08:34*	*02/18/22 10:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.0**		4.98		mg/Kg			02/21/22 20:50	1

Client Sample ID: BH01A Lab Sample ID: 890-1957-2

Date Collected: 02/14/22 13:44 **Matrix: Solid**
Date Received: 02/16/22 11:05
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		02/18/22 14:00	02/20/22 01:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 01:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 01:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/18/22 14:00	02/20/22 01:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 01:43	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/18/22 14:00	02/20/22 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*02/18/22 14:00*	*02/20/22 01:43*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH01A
Lab Sample ID: 890-1957-2
Date Collected: 02/14/22 13:44 **Matrix: Solid**
Date Received: 02/16/22 11:05
Sample Depth: 2

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 14:00*	*02/20/22 01:43*	*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			02/21/22 19:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/18/22 17:26	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 08:34	02/18/22 16:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 16:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*98*		*70 - 130*	*02/18/22 08:34*	*02/18/22 16:42*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/18/22 08:34*	*02/18/22 16:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.5**		4.95	mg/Kg			02/21/22 20:56	1

Client Sample ID: BH03
Lab Sample ID: 890-1957-3
Date Collected: 02/14/22 13:57 **Matrix: Solid**
Date Received: 02/16/22 11:05
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 14:00	02/20/22 02:03	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 02:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/18/22 14:00*	*02/20/22 02:03*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/18/22 14:00*	*02/20/22 02:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/22 19:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/18/22 17:26	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH03 — Lab Sample ID: 890-1957-3

Date Collected: 02/14/22 13:57 **Matrix: Solid**
Date Received: 02/16/22 11:05
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	<49.9	U *+ *1	49.9		mg/Kg		02/18/22 08:34	02/18/22 17:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+ *1	49.9		mg/Kg		02/18/22 08:34	02/18/22 17:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 08:34	02/18/22 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/18/22 08:34*	*02/18/22 17:02*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/18/22 08:34*	*02/18/22 17:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.3**		5.02		mg/Kg			02/21/22 21:03	1

Client Sample ID: BH03A — Lab Sample ID: 890-1957-4

Date Collected: 02/14/22 13:59 **Matrix: Solid**
Date Received: 02/16/22 11:05
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		02/18/22 14:00	02/20/22 02:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 02:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 02:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/18/22 14:00	02/20/22 02:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 02:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/18/22 14:00	02/20/22 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/18/22 14:00*	*02/20/22 02:24*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 14:00*	*02/20/22 02:24*	*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			02/21/22 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/18/22 17:26	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 *+ *1	49.9		mg/Kg		02/18/22 08:34	02/18/22 17:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+ *1	49.9		mg/Kg		02/18/22 08:34	02/18/22 17:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 08:34	02/18/22 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/18/22 08:34*	*02/18/22 17:45*	*1*
o-Terphenyl	*90*		*70 - 130*	*02/18/22 08:34*	*02/18/22 17:45*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH03A — Lab Sample ID: 890-1957-4

Date Collected: 02/14/22 13:59 **Matrix: Solid**
Date Received: 02/16/22 11:05
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.01		4.98		mg/Kg			02/21/22 21:22	1

Client Sample ID: BH04 — Lab Sample ID: 890-1957-5

Date Collected: 02/14/22 13:50 **Matrix: Solid**
Date Received: 02/16/22 11:05
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 14:00	02/20/22 02:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 02:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 02:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/18/22 14:00	02/20/22 02:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/20/22 02:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/18/22 14:00	02/20/22 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*02/18/22 14:00*	*02/20/22 02:44*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/18/22 14:00*	*02/20/22 02:44*	*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			02/21/22 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/22 17:26	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 08:34	02/18/22 18:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0		mg/Kg		02/18/22 08:34	02/18/22 18:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/18/22 08:34*	*02/18/22 18:06*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/18/22 08:34*	*02/18/22 18:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			02/21/22 21:28	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

Client Sample ID: BH04A
Date Collected: 02/14/22 13:52
Date Received: 02/16/22 11:05
Sample Depth: 2

Lab Sample ID: 890-1957-6
Matrix: Solid

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 14:00	02/20/22 03:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/18/22 14:00	02/20/22 03:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/18/22 14:00	02/20/22 03:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/18/22 14:00	02/20/22 03:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/18/22 14:00	02/20/22 03:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/18/22 14:00	02/20/22 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/18/22 14:00*	*02/20/22 03:04*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/18/22 14:00*	*02/20/22 03:04*	*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			02/21/22 19:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/22 17:26	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		02/17/22 14:25	02/18/22 18:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/17/22 14:25	02/18/22 18:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/17/22 14:25	02/18/22 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*02/17/22 14:25*	*02/18/22 18:07*	*1*
o-Terphenyl	*107*		*70 - 130*	*02/17/22 14:25*	*02/18/22 18:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			02/21/22 21:34	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

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

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1937-A-1-E MS	Matrix Spike	139 S1+	85
890-1937-A-1-F MSD	Matrix Spike Duplicate	129	105
890-1957-1	BH01	118	102
890-1957-2	BH01A	136 S1+	99
890-1957-3	BH03	119	95
890-1957-4	BH03A	115	97
890-1957-5	BH04	131 S1+	102
890-1957-6	BH04A	114	97
LCS 880-19726/1-A	Lab Control Sample	106	94
LCSD 880-19726/2-A	Lab Control Sample Dup	113	94
MB 880-19710/5-A	Method Blank	136 S1+	106
MB 880-19726/5-A	Method Blank	120	99

Percent Surrogate Recovery (Acceptance Limits)

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**

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11404-A-1-F MS	Matrix Spike	78	75
880-11404-A-1-G MSD	Matrix Spike Duplicate	86	84
890-1957-1	BH01	84	84
890-1957-1 MS	BH01	71	66 S1-
890-1957-1 MSD	BH01	68 S1-	62 S1-
890-1957-2	BH01A	98	92
890-1957-3	BH03	88	89
890-1957-4	BH03A	91	90
890-1957-5	BH04	87	84
890-1957-6	BH04A	99	107
LCS 880-19727/2-A	Lab Control Sample	105	120
LCSD 880-19727/3-A	Lab Control Sample Dup	119	132 S1+
MB 880-19727/1-A	Method Blank	89	102

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

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

Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-19786/2-A	Lab Control Sample	141 S1+	140 S1+
LCSD 880-19786/3-A	Lab Control Sample Dup	175 S1+	174 S1+
MB 880-19786/1-A	Method Blank	83	87

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19710/5-A
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19710

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/18/22 08:30	02/19/22 11:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 08:30	02/19/22 11:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 08:30	02/19/22 11:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/18/22 08:30	02/19/22 11:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 08:30	02/19/22 11:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/18/22 08:30	02/19/22 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*02/18/22 08:30*	*02/19/22 11:55*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/18/22 08:30*	*02/19/22 11:55*	*1*

Lab Sample ID: MB 880-19726/5-A
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19726

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/19/22 23:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/19/22 23:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/19/22 23:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/18/22 14:00	02/19/22 23:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/18/22 14:00	02/19/22 23:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/18/22 14:00	02/19/22 23:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*02/18/22 14:00*	*02/19/22 23:32*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/18/22 14:00*	*02/19/22 23:32*	*1*

Lab Sample ID: LCS 880-19726/1-A
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19726

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08006		mg/Kg		80	70 - 130		
Toluene			0.100	0.09114		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09514		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1787		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.08747		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-19726/2-A
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19726

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08249		mg/Kg		82	70 - 130	3	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

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

Lab Sample ID: LCSD 880-19726/2-A
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19726

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.08890		mg/Kg		89	70 - 130	2	35
Ethylbenzene			0.100	0.08914		mg/Kg		89	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1773		mg/Kg		89	70 - 130	1	35
o-Xylene			0.100	0.09142		mg/Kg		91	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1937-A-1-E MS
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19726

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U F1 F2	0.100	0.05182	F1	mg/Kg		52	70 - 130
Toluene	<0.00202	U F1	0.100	0.05670	F1	mg/Kg		56	70 - 130
Ethylbenzene	<0.00202	U	0.100	0.09014		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00404	U F1	0.201	0.1275	F1	mg/Kg		63	70 - 130
o-Xylene	<0.00202	U F1	0.100	0.06332	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 890-1937-A-1-F MSD
Matrix: Solid
Analysis Batch: 19783

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 19726

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0998	0.07961	F2	mg/Kg		80	70 - 130	42	35
Toluene	<0.00202	U F1	0.0998	0.07714		mg/Kg		77	70 - 130	31	35
Ethylbenzene	<0.00202	U	0.0998	0.09264		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene	<0.00404	U F1	0.200	0.1586		mg/Kg		79	70 - 130	22	35
o-Xylene	<0.00202	U F1	0.0998	0.08155		mg/Kg		82	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-19727/1-A
Matrix: Solid
Analysis Batch: 19777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19727

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		02/17/22 14:25	02/18/22 09:18	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

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

Lab Sample ID: MB 880-19727/1-A
Matrix: Solid
Analysis Batch: 19777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19727

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/17/22 14:25	02/18/22 09:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/17/22 14:25	02/18/22 09:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/17/22 14:25*	*02/18/22 09:18*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/17/22 14:25*	*02/18/22 09:18*	*1*

Lab Sample ID: LCS 880-19727/2-A
Matrix: Solid
Analysis Batch: 19777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19727

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	854.1		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1072		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: LCSD 880-19727/3-A
Matrix: Solid
Analysis Batch: 19777

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19727

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1108	*1	mg/Kg		111	70 - 130	26	20
Diesel Range Organics (Over C10-C28)			1000	1132		mg/Kg		113	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*132*	*S1+*	*70 - 130*

Lab Sample ID: 880-11404-A-1-F MS
Matrix: Solid
Analysis Batch: 19777

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 19727

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 *1	1000	930.7		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1008		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*78*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

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

Lab Sample ID: 880-11404-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19777 — **Prep Batch: 19727**

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 *1	998	1056		mg/Kg		104	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1127		mg/Kg		113	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: MB 880-19786/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

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 08:34	02/18/22 09:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 09:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 09:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/18/22 08:34*	*02/18/22 09:43*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/18/22 08:34*	*02/18/22 09:43*	*1*

Lab Sample ID: LCS 880-19786/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1056		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1360	*+	mg/Kg		136	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*141*	*S1+*	*70 - 130*
o-Terphenyl	*140*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-19786/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1327	*+ *1	mg/Kg		133	70 - 130	23	20
Diesel Range Organics (Over C10-C28)			1000	1708	*+ *1	mg/Kg		171	70 - 130	23	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

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

Lab Sample ID: LCSD 880-19786/3-A
Matrix: Solid
Analysis Batch: 19782

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19786

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	175	S1+	70 - 130
o-Terphenyl	174	S1+	70 - 130

Lab Sample ID: 890-1957-1 MS
Matrix: Solid
Analysis Batch: 19782

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19786

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 *+ *1	1000	1006		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	1000	1197		mg/Kg		120	70 - 130

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

Lab Sample ID: 890-1957-1 MSD
Matrix: Solid
Analysis Batch: 19782

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 19786

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 *+ *1	998	948.8		mg/Kg		93	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	998	1145		mg/Kg		115	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19804/1-A
Matrix: Solid
Analysis Batch: 19937

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			02/21/22 19:59	1

Lab Sample ID: LCS 880-19804/2-A
Matrix: Solid
Analysis Batch: 19937

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	246.7		mg/Kg		99	90 - 110

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-19804/3-A
Matrix: Solid
Analysis Batch: 19937

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

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

Lab Sample ID: 880-11403-A-1-B MS
Matrix: Solid
Analysis Batch: 19937

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	2530		5000	7764		mg/Kg		105	90 - 110		

Lab Sample ID: 880-11403-A-1-C MSD
Matrix: Solid
Analysis Batch: 19937

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	2530		5000	7955		mg/Kg		108	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

GC VOA

Prep Batch: 19710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19710/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 19726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	5035	
890-1957-2	BH01A	Total/NA	Solid	5035	
890-1957-3	BH03	Total/NA	Solid	5035	
890-1957-4	BH03A	Total/NA	Solid	5035	
890-1957-5	BH04	Total/NA	Solid	5035	
890-1957-6	BH04A	Total/NA	Solid	5035	
MB 880-19726/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19726/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19726/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1937-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-1937-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 19783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8021B	19726
890-1957-2	BH01A	Total/NA	Solid	8021B	19726
890-1957-3	BH03	Total/NA	Solid	8021B	19726
890-1957-4	BH03A	Total/NA	Solid	8021B	19726
890-1957-5	BH04	Total/NA	Solid	8021B	19726
890-1957-6	BH04A	Total/NA	Solid	8021B	19726
MB 880-19710/5-A	Method Blank	Total/NA	Solid	8021B	19710
MB 880-19726/5-A	Method Blank	Total/NA	Solid	8021B	19726
LCS 880-19726/1-A	Lab Control Sample	Total/NA	Solid	8021B	19726
LCSD 880-19726/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19726
890-1937-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	19726
890-1937-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19726

Analysis Batch: 20009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	Total BTEX	
890-1957-2	BH01A	Total/NA	Solid	Total BTEX	
890-1957-3	BH03	Total/NA	Solid	Total BTEX	
890-1957-4	BH03A	Total/NA	Solid	Total BTEX	
890-1957-5	BH04	Total/NA	Solid	Total BTEX	
890-1957-6	BH04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-6	BH04A	Total/NA	Solid	8015NM Prep	
MB 880-19727/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19727/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19727/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11404-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11404-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

GC Semi VOA

Analysis Batch: 19777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-6	BH04A	Total/NA	Solid	8015B NM	19727
MB 880-19727/1-A	Method Blank	Total/NA	Solid	8015B NM	19727
LCS 880-19727/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19727
LCSD 880-19727/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19727
880-11404-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	19727
880-11404-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19727

Analysis Batch: 19782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8015B NM	19786
890-1957-2	BH01A	Total/NA	Solid	8015B NM	19786
890-1957-3	BH03	Total/NA	Solid	8015B NM	19786
890-1957-4	BH03A	Total/NA	Solid	8015B NM	19786
890-1957-5	BH04	Total/NA	Solid	8015B NM	19786
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015B NM	19786
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19786
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19786
890-1957-1 MS	BH01	Total/NA	Solid	8015B NM	19786
890-1957-1 MSD	BH01	Total/NA	Solid	8015B NM	19786

Prep Batch: 19786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8015NM Prep	
890-1957-2	BH01A	Total/NA	Solid	8015NM Prep	
890-1957-3	BH03	Total/NA	Solid	8015NM Prep	
890-1957-4	BH03A	Total/NA	Solid	8015NM Prep	
890-1957-5	BH04	Total/NA	Solid	8015NM Prep	
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1957-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-1957-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8015 NM	
890-1957-2	BH01A	Total/NA	Solid	8015 NM	
890-1957-3	BH03	Total/NA	Solid	8015 NM	
890-1957-4	BH03A	Total/NA	Solid	8015 NM	
890-1957-5	BH04	Total/NA	Solid	8015 NM	
890-1957-6	BH04A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Soluble	Solid	DI Leach	
890-1957-2	BH01A	Soluble	Solid	DI Leach	
890-1957-3	BH03	Soluble	Solid	DI Leach	
890-1957-4	BH03A	Soluble	Solid	DI Leach	
890-1957-5	BH04	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

HPLC/IC (Continued)

Leach Batch: 19804 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-6	BH04A	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	
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Soluble	Solid	300.0	19804
890-1957-2	BH01A	Soluble	Solid	300.0	19804
890-1957-3	BH03	Soluble	Solid	300.0	19804
890-1957-4	BH03A	Soluble	Solid	300.0	19804
890-1957-5	BH04	Soluble	Solid	300.0	19804
890-1957-6	BH04A	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
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	19804
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19804

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH01 — Lab Sample ID: 890-1957-1

Date Collected: 02/14/22 13:42 **Matrix: Solid**
Date Received: 02/16/22 11:05

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	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 01:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 10:48	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 20:50	CH	XEN MID

Client Sample ID: BH01A — Lab Sample ID: 890-1957-2

Date Collected: 02/14/22 13:44 **Matrix: Solid**
Date Received: 02/16/22 11:05

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	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 01:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 16:42	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 20:56	CH	XEN MID

Client Sample ID: BH03 — Lab Sample ID: 890-1957-3

Date Collected: 02/14/22 13:57 **Matrix: Solid**
Date Received: 02/16/22 11:05

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	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 02:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 17:02	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		1			19937	02/21/22 21:03	CH	XEN MID

Client Sample ID: BH03A — Lab Sample ID: 890-1957-4

Date Collected: 02/14/22 13:59 **Matrix: Solid**
Date Received: 02/16/22 11:05

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	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 02:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

Client Sample ID: BH03A

Date Collected: 02/14/22 13:59
Date Received: 02/16/22 11:05

Lab Sample ID: 890-1957-4
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			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 17:45	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 21:22	CH	XEN MID

Client Sample ID: BH04

Date Collected: 02/14/22 13:50
Date Received: 02/16/22 11:05

Lab Sample ID: 890-1957-5
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			5.01 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 02:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 18:06	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 21:28	CH	XEN MID

Client Sample ID: BH04A

Date Collected: 02/14/22 13:52
Date Received: 02/16/22 11:05

Lab Sample ID: 890-1957-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 03:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19727	02/17/22 14:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19777	02/18/22 18:07	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 21:34	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. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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. Job ID: 890-1957-1
Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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: Macho Nacho State Com 010h

Job ID: 890-1957-1
SDG: 31403720.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1957-1	BH01	Solid	02/14/22 13:42	02/16/22 11:05	1
890-1957-2	BH01A	Solid	02/14/22 13:44	02/16/22 11:05	2
890-1957-3	BH03	Solid	02/14/22 13:57	02/16/22 11:05	1
890-1957-4	BH03A	Solid	02/14/22 13:59	02/16/22 11:05	2
890-1957-5	BH04	Solid	02/14/22 13:50	02/16/22 11:05	1
890-1957-6	BH04A	Solid	02/14/22 13:52	02/16/22 11:05	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: _____

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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 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:	Macho Nacho State Com 010H	Turn Around	
Project Number:	31403720.00	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	IWM-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

890-1957 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH01	S	02/14/22	13:42	1	1	X	X	X
BH01A	S	02/14/22	13:44	2	1	X	X	X
BH03	S	02/14/22	13:57	1	1	X	X	X
BH03A	S	02/14/22	13:59	2	1	X	X	X
BH04	S	02/14/22	13:50	1	1	X	X	X
BH04A	S	02/14/22	13:52	2	1	X	X	X

Work Order Notes

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

Sample Comments

DISCRETE
DISCRETE
DISCRETE
DISCRETE
DISCRETE
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	Cruz Cuyo	2.16.22 1105	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 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1957-1
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: Macho Nacho State Com 010h	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:										
BH01 (890-1957-1)	2/14/22	13 42 Mountain		Solid			X	X	X	X	X	1	
BH01A (890-1957-2)	2/14/22	13 44 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-1957-3)	2/14/22	13 57 Mountain		Solid			X	X	X	X	X	1	
BH03A (890-1957-4)	2/14/22	13.59 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-1957-5)	2/14/22	13 50 Mountain		Solid			X	X	X	X	X	1	
BH04A (890-1957-6)	2/14/22	13 52 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 Cuyo 2-16-22					
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1957-1
SDG Number: 31403720.00

Login Number: 1957
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: 890-1957-1
SDG Number: 31403720.00

Login Number: 1957
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1959-1
Laboratory Sample Delivery Group: 31403720.00
Client Project/Site: Macho Nacho State Com 010H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/28/2022 7:07:36 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: Macho Nacho State Com 010H

Laboratory Job ID: 890-1959-1
SDG: 31403720.00

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD 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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Job ID: 890-1959-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1959-1

Receipt
The samples were received on 2/16/2022 11:05 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
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 laboratory control sample (LCS) associated with preparation batch 880-19786 and analytical batch 880-19782 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-1957-A-1-C MS) and (890-1957-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Client Sample ID: BH02 Lab Sample ID: 890-1959-1

Date Collected: 02/14/22 12:23 **Matrix: Solid**
Date Received: 02/16/22 11:05
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		02/24/22 09:39	02/25/22 01:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/25/22 01:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/25/22 01:18	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/24/22 09:39	02/25/22 01:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/25/22 01:18	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/24/22 09:39	02/25/22 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/24/22 09:39*	*02/25/22 01:18*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/24/22 09:39*	*02/25/22 01:18*	*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 13:43	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			02/18/22 20:05	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 08:34	02/18/22 18:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0		mg/Kg		02/18/22 08:34	02/18/22 18:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/18/22 08:34*	*02/18/22 18:27*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/18/22 08:34*	*02/18/22 18:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.6**		4.97		mg/Kg			02/21/22 21:41	1

Client Sample ID: BH05 Lab Sample ID: 890-1959-2

Date Collected: 02/14/22 12:44 **Matrix: Solid**
Date Received: 02/16/22 11:05
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 09:39	02/25/22 01:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 01:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 01:38	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/24/22 09:39	02/25/22 01:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/24/22 09:39	02/25/22 01:38	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/24/22 09:39	02/25/22 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*02/24/22 09:39*	*02/25/22 01:38*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

Client Sample ID: BH05
Date Collected: 02/14/22 12:44
Date Received: 02/16/22 11:05
Sample Depth: 1

Lab Sample ID: 890-1959-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/24/22 09:39*	*02/25/22 01:38*	*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 13:43	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			02/18/22 20:05	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 *+ *1	49.9		mg/Kg		02/18/22 08:34	02/18/22 18:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+ *1	49.9		mg/Kg		02/18/22 08:34	02/18/22 18:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/18/22 08:34	02/18/22 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/18/22 08:34*	*02/18/22 18:48*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/18/22 08:34*	*02/18/22 18:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.6**		4.96		mg/Kg			02/21/22 21:47	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

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)
880-11351-A-1-C MS	Matrix Spike	101	99
880-11351-A-1-D MSD	Matrix Spike Duplicate	104	100
890-1959-1	BH02	101	97
890-1959-2	BH05	130	88
LCS 880-20192/1-A	Lab Control Sample	102	99
LCSD 880-20192/2-A	Lab Control Sample Dup	104	101
MB 880-19723/5-A	Method Blank	99	95
MB 880-20192/5-A	Method Blank	98	94

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)
890-1957-A-1-C MS	Matrix Spike	71	66 S1-
890-1957-A-1-D MSD	Matrix Spike Duplicate	68 S1-	62 S1-
890-1959-1	BH02	81	80
890-1959-2	BH05	98	97

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 880-19786/2-A	Lab Control Sample	141 S1+	140 S1+
LCSD 880-19786/3-A	Lab Control Sample Dup	175 S1+	174 S1+
MB 880-19786/1-A	Method Blank	83	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 07:45	02/24/22 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/24/22 07:45*	*02/24/22 11:10*	*1*

Lab Sample ID: MB 880-20192/5-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20192

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/22 09:39	02/24/22 22:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/24/22 09:39*	*02/24/22 22:54*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/24/22 09:39*	*02/24/22 22:54*	*1*

Lab Sample ID: LCS 880-20192/1-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1094		mg/Kg		109	70 - 130		
Toluene			0.100	0.1080		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1082		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2226		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1088		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-20192/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1056		mg/Kg		106	70 - 130	4	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

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

Lab Sample ID: LCSD 880-20192/2-A
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20192

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1044		mg/Kg		104	70 - 130	3	35
Ethylbenzene			0.100	0.1037		mg/Kg		104	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2138		mg/Kg		107	70 - 130	4	35
o-Xylene			0.100	0.1055		mg/Kg		105	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-11351-A-1-C MS
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20192

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0996	0.1030		mg/Kg		103	70 - 130
Toluene	<0.00199	U	0.0996	0.1018		mg/Kg		102	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.1002		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2090		mg/Kg		105	70 - 130
o-Xylene	<0.00199	U	0.0996	0.1073		mg/Kg		108	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-11351-A-1-D MSD
Matrix: Solid
Analysis Batch: 20184

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20192

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.1114		mg/Kg		112	70 - 130	8	35
Toluene	<0.00199	U	0.0998	0.1105		mg/Kg		111	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.0998	0.1094		mg/Kg		110	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2279		mg/Kg		114	70 - 130	9	35
o-Xylene	<0.00199	U	0.0998	0.1154		mg/Kg		116	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-19786/1-A
Matrix: Solid
Analysis Batch: 19782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19786

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 08:34	02/18/22 09:43	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

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

Lab Sample ID: MB 880-19786/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 09:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/18/22 08:34	02/18/22 09:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/18/22 08:34*	*02/18/22 09:43*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/18/22 08:34*	*02/18/22 09:43*	*1*

Lab Sample ID: LCS 880-19786/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1056		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1360	*+	mg/Kg		136	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*141*	*S1+*	*70 - 130*
o-Terphenyl	*140*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-19786/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1327	*+ *1	mg/Kg		133	70 - 130	23	20
Diesel Range Organics (Over C10-C28)			1000	1708	*+ *1	mg/Kg		171	70 - 130	23	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*175*	*S1+*	*70 - 130*
o-Terphenyl	*174*	*S1+*	*70 - 130*

Lab Sample ID: 890-1957-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

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 *+ *1	1000	1006		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	1000	1197		mg/Kg		120	70 - 130		

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

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

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

Lab Sample ID: 890-1957-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 19782 — **Prep Batch: 19786**

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 *+ *1	998	948.8		mg/Kg		93	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	998	1145		mg/Kg		115	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*62*	*S1-*	*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: 880-11403-A-1-B MS — **Client Sample ID: Matrix Spike**
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	2530		5000	7764		mg/Kg		105	90 - 110		

Lab Sample ID: 880-11403-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
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	2530		5000	7955		mg/Kg		108	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8021B	20192
890-1959-2	BH05	Total/NA	Solid	8021B	20192
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
MB 880-20192/5-A	Method Blank	Total/NA	Solid	8021B	20192
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	8021B	20192
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20192
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	20192
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20192

Prep Batch: 20192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	5035	
890-1959-2	BH05	Total/NA	Solid	5035	
MB 880-20192/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	Total BTEX	
890-1959-2	BH05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 19782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8015B NM	19786
890-1959-2	BH05	Total/NA	Solid	8015B NM	19786
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015B NM	19786
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19786
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19786
890-1957-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	19786
890-1957-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19786

Prep Batch: 19786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8015NM Prep	
890-1959-2	BH05	Total/NA	Solid	8015NM Prep	
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1957-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1957-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

GC Semi VOA

Analysis Batch: 19857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8015 NM	
890-1959-2	BH05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Soluble	Solid	DI Leach	
890-1959-2	BH05	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	
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Soluble	Solid	300.0	19804
890-1959-2	BH05	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
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	19804
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19804

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

Client Sample ID: BH02

Date Collected: 02/14/22 12:23
Date Received: 02/16/22 11:05

Lab Sample ID: 890-1959-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20184	02/25/22 01:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20324	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19857	02/18/22 20:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 18:27	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 21:41	CH	XEN MID

Client Sample ID: BH05

Date Collected: 02/14/22 12:44
Date Received: 02/16/22 11:05

Lab Sample ID: 890-1959-2
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			4.95 g	5 mL	20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20184	02/25/22 01:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20324	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19857	02/18/22 20:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 18:48	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 21:47	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. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

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. Job ID: 890-1959-1
Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

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: Macho Nacho State Com 010H

Job ID: 890-1959-1
SDG: 31403720.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1959-1	BH02	Solid	02/14/22 12:23	02/16/22 11:05	1
890-1959-2	BH05	Solid	02/14/22 12:44	02/16/22 11:05	1

Chain of Custody

XENCO LABCRATORIES

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 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:	Macho Nacho State Com 010H	Turn Around	
Project Number:	31403720.00	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	TRM-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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH02	S	02/15/22	12:23	1	1	X	X	X	DISCRETE
BH05	S	02/15/22	12:44	1	1	X	X	X	DISCRETE

890-1959 Chain of Custody

Work Order Notes

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

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

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

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		2.16.22 1105	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 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1959-1
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: Macho Nacho State Com 010h	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:										
BH02 (890-1959-1)	2/14/22	12 23 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-1959-2)	2/14/22	12 44 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: Clue Cup 2.16.22	Date/Time:	Company	Received by: 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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1959-1
SDG Number: 31403720.00

Login Number: 1959
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: 890-1959-1
SDG Number: 31403720.00

Login Number: 1959
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2798-1
Laboratory Sample Delivery Group: 03D2024008
Client Project/Site: Macho Nacho #10 CTB

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/25/2022 2:42:56 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: Macho Nacho #10 CTB

Laboratory Job ID: 890-2798-1
SDG: 03D2024008

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Definitions/Glossary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

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
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Job ID: 890-2798-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2798-1

Receipt
The samples were received on 8/23/2022 8:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32845 and analytical batch 880-32874 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.The associated samples are: BH02A (890-2798-1), BH05A (890-2798-2), FS01 (890-2798-3), FS02 (890-2798-4), FS03 (890-2798-5), FS04 (890-2798-6), FS05 (890-2798-7) and (890-2798-A-1-E MSD).

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: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: BH02A

Date Collected: 08/22/22 10:30
Date Received: 08/23/22 08:18
Sample Depth: 2

Lab Sample ID: 890-2798-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:07	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		08/24/22 10:24	08/24/22 16:07	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		08/24/22 10:24	08/24/22 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*08/24/22 10:24*	*08/24/22 16:07*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/24/22 10:24*	*08/24/22 16:07*	*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			08/24/22 16:56	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 12:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 12:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*08/24/22 08:38*	*08/24/22 12:50*	*1*
o-Terphenyl	*89*		*70 - 130*	*08/24/22 08:38*	*08/24/22 12:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.4**	**F1 F2**	4.96		mg/Kg			08/24/22 21:32	1

Client Sample ID: BH05A

Date Collected: 08/22/22 10:35
Date Received: 08/23/22 08:18
Sample Depth: 2

Lab Sample ID: 890-2798-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:38	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		08/24/22 10:24	08/24/22 16:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		08/24/22 10:24	08/24/22 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*08/24/22 10:24*	*08/24/22 16:38*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: BH05A

Lab Sample ID: 890-2798-2
Matrix: Solid
Date Collected: 08/22/22 10:35
Date Received: 08/23/22 08:18
Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*08/24/22 10:24*	*08/24/22 16:38*	*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			08/24/22 16:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**51.1**		49.9	mg/Kg			08/24/22 21:20	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		08/24/22 08:38	08/24/22 13:12	1
Diesel Range Organics (Over C10-C28)	**51.1**		49.9	mg/Kg		08/24/22 08:38	08/24/22 13:12	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*79*		*70 - 130*	*08/24/22 08:38*	*08/24/22 13:12*	*1*
o-Terphenyl	*85*		*70 - 130*	*08/24/22 08:38*	*08/24/22 13:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.15**		4.99	mg/Kg			08/24/22 21:56	1

Client Sample ID: FS01

Lab Sample ID: 890-2798-3
Matrix: Solid
Date Collected: 08/22/22 12:00
Date Received: 08/23/22 08:18
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		08/24/22 10:24	08/24/22 17:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*08/24/22 10:24*	*08/24/22 17:04*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*08/24/22 10:24*	*08/24/22 17:04*	*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			08/24/22 16:56	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			08/24/22 21:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: FS01

Lab Sample ID: 890-2798-3
Matrix: Solid
Date Collected: 08/22/22 12:00
Date Received: 08/23/22 08:18
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		08/24/22 08:38	08/24/22 13:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 13:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/24/22 08:38*	*08/24/22 13:34*	*1*
o-Terphenyl	*84*		*70 - 130*	*08/24/22 08:38*	*08/24/22 13:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.97**		4.97		mg/Kg			08/24/22 22:03	1

Client Sample ID: FS02

Lab Sample ID: 890-2798-4
Matrix: Solid
Date Collected: 08/22/22 12:05
Date Received: 08/23/22 08:18
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		08/24/22 10:24	08/24/22 17:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 17:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 17:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 17:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 17:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*08/24/22 10:24*	*08/24/22 17:30*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*08/24/22 10:24*	*08/24/22 17:30*	*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			08/24/22 16:56	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 13:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 13:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*08/24/22 08:38*	*08/24/22 13:55*	*1*
o-Terphenyl	*94*		*70 - 130*	*08/24/22 08:38*	*08/24/22 13:55*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: FS02

Lab Sample ID: 890-2798-4
Matrix: Solid
Date Collected: 08/22/22 12:05
Date Received: 08/23/22 08:18
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.11		4.97		mg/Kg			08/24/22 22:11	1

Client Sample ID: FS03

Lab Sample ID: 890-2798-5
Matrix: Solid
Date Collected: 08/22/22 12:10
Date Received: 08/23/22 08:18
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 17:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 17:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*08/24/22 10:24*	*08/24/22 17:56*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/24/22 10:24*	*08/24/22 17:56*	*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			08/24/22 16:56	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 14:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 14:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*08/24/22 08:38*	*08/24/22 14:17*	*1*
o-Terphenyl	*90*		*70 - 130*	*08/24/22 08:38*	*08/24/22 14:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.8		5.00		mg/Kg			08/24/22 22:19	1

Client Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: FS04

Lab Sample ID: 890-2798-6
Matrix: Solid
Date Collected: 08/22/22 12:35
Date Received: 08/23/22 08:18
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		08/24/22 10:24	08/24/22 18:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 18:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 18:22	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		08/24/22 10:24	08/24/22 18:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/24/22 10:24	08/24/22 18:22	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		08/24/22 10:24	08/24/22 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*08/24/22 10:24*	*08/24/22 18:22*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*08/24/22 10:24*	*08/24/22 18:22*	*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			08/24/22 16:56	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 14:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 14:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/24/22 08:38*	*08/24/22 14:38*	*1*
o-Terphenyl	*85*		*70 - 130*	*08/24/22 08:38*	*08/24/22 14:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.7**		5.01		mg/Kg			08/24/22 22:43	1

Client Sample ID: FS05

Lab Sample ID: 890-2798-7
Matrix: Solid
Date Collected: 08/22/22 12:45
Date Received: 08/23/22 08:18
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		08/24/22 10:24	08/24/22 20:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 20:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 20:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 20:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 20:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*08/24/22 10:24*	*08/24/22 20:07*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: FS05
Date Collected: 08/22/22 12:45
Date Received: 08/23/22 08:18
Sample Depth: 1

Lab Sample ID: 890-2798-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*08/24/22 10:24*	*08/24/22 20:07*	*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			08/24/22 16:56	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 15:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 15:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*08/24/22 08:38*	*08/24/22 15:00*	*1*
o-Terphenyl	*92*		*70 - 130*	*08/24/22 08:38*	*08/24/22 15:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.5**		5.04		mg/Kg			08/24/22 22:51	1

Surrogate Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2798-1	BH02A	110	95
890-2798-2	BH05A	93	98
890-2798-3	FS01	101	93
890-2798-4	FS02	83	124
890-2798-5	FS03	111	95
890-2798-6	FS04	112	94
890-2798-7	FS05	105	92
890-2802-A-1-A MS	Matrix Spike	110	103
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98
LCS 880-32835/1-A	Lab Control Sample	100	101
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107
MB 880-32835/5-A	Method Blank	80	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-18436-A-1-E MS	Matrix Spike	82	81
880-18436-A-1-F MSD	Matrix Spike Duplicate	83	82
890-2798-1	BH02A	81	89
890-2798-2	BH05A	79	85
890-2798-3	FS01	78	84
890-2798-4	FS02	85	94
890-2798-5	FS03	83	90
890-2798-6	FS04	78	85
890-2798-7	FS05	85	92
LCS 880-32816/2-A	Lab Control Sample	95	104
LCSD 880-32816/3-A	Lab Control Sample Dup	105	117
MB 880-32816/1-A	Method Blank	93	107

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09463		mg/Kg		95	70 - 130		
Toluene			0.100	0.09936		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09277		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1944		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-32835/2-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene			0.100	0.1178		mg/Kg		118	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2802-A-1-B MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-32816/1-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32816

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		08/24/22 08:38	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*08/24/22 08:38*	*08/24/22 10:43*	*1*
o-Terphenyl	*107*		*70 - 130*	*08/24/22 08:38*	*08/24/22 10:43*	*1*

Lab Sample ID: LCS 880-32816/2-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32816

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1002		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)			1000	880.5		mg/Kg		88	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

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

Lab Sample ID: LCS 880-32816/2-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32816

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-32816/3-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32816

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1016		mg/Kg		102	70 - 130	14	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: 880-18436-A-1-E MS
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32816

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1040		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	743.4		mg/Kg		70	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 880-18436-A-1-F MSD
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1139		mg/Kg		112	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	744.0		mg/Kg		70	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	82		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A
Matrix: Solid
Analysis Batch: 32874

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			08/24/22 21:08	1

Lab Sample ID: LCS 880-32845/2-A
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-32845/3-A
Matrix: Solid
Analysis Batch: 32874

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2798-1 MS
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: BH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	22.4	F1 F2	248	278.9		mg/Kg		103	90 - 110		

Lab Sample ID: 890-2798-1 MSD
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: BH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	22.4	F1 F2	248	213.1	F1 F2	mg/Kg		77	90 - 110	27	20

QC Association Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

GC VOA

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8021B	32835
890-2798-2	BH05A	Total/NA	Solid	8021B	32835
890-2798-3	FS01	Total/NA	Solid	8021B	32835
890-2798-4	FS02	Total/NA	Solid	8021B	32835
890-2798-5	FS03	Total/NA	Solid	8021B	32835
890-2798-6	FS04	Total/NA	Solid	8021B	32835
890-2798-7	FS05	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	5035	
890-2798-2	BH05A	Total/NA	Solid	5035	
890-2798-3	FS01	Total/NA	Solid	5035	
890-2798-4	FS02	Total/NA	Solid	5035	
890-2798-5	FS03	Total/NA	Solid	5035	
890-2798-6	FS04	Total/NA	Solid	5035	
890-2798-7	FS05	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	Total BTEX	
890-2798-2	BH05A	Total/NA	Solid	Total BTEX	
890-2798-3	FS01	Total/NA	Solid	Total BTEX	
890-2798-4	FS02	Total/NA	Solid	Total BTEX	
890-2798-5	FS03	Total/NA	Solid	Total BTEX	
890-2798-6	FS04	Total/NA	Solid	Total BTEX	
890-2798-7	FS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8015B NM	32816
890-2798-2	BH05A	Total/NA	Solid	8015B NM	32816
890-2798-3	FS01	Total/NA	Solid	8015B NM	32816
890-2798-4	FS02	Total/NA	Solid	8015B NM	32816
890-2798-5	FS03	Total/NA	Solid	8015B NM	32816
890-2798-6	FS04	Total/NA	Solid	8015B NM	32816
890-2798-7	FS05	Total/NA	Solid	8015B NM	32816
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015B NM	32816
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32816

QC Association Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

GC Semi VOA (Continued)

Analysis Batch: 32812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32816
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	32816
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32816

Prep Batch: 32816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8015NM Prep	
890-2798-2	BH05A	Total/NA	Solid	8015NM Prep	
890-2798-3	FS01	Total/NA	Solid	8015NM Prep	
890-2798-4	FS02	Total/NA	Solid	8015NM Prep	
890-2798-5	FS03	Total/NA	Solid	8015NM Prep	
890-2798-6	FS04	Total/NA	Solid	8015NM Prep	
890-2798-7	FS05	Total/NA	Solid	8015NM Prep	
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8015 NM	
890-2798-2	BH05A	Total/NA	Solid	8015 NM	
890-2798-3	FS01	Total/NA	Solid	8015 NM	
890-2798-4	FS02	Total/NA	Solid	8015 NM	
890-2798-5	FS03	Total/NA	Solid	8015 NM	
890-2798-6	FS04	Total/NA	Solid	8015 NM	
890-2798-7	FS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Soluble	Solid	DI Leach	
890-2798-2	BH05A	Soluble	Solid	DI Leach	
890-2798-3	FS01	Soluble	Solid	DI Leach	
890-2798-4	FS02	Soluble	Solid	DI Leach	
890-2798-5	FS03	Soluble	Solid	DI Leach	
890-2798-6	FS04	Soluble	Solid	DI Leach	
890-2798-7	FS05	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2798-1 MS	BH02A	Soluble	Solid	DI Leach	
890-2798-1 MSD	BH02A	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Soluble	Solid	300.0	32845
890-2798-2	BH05A	Soluble	Solid	300.0	32845
890-2798-3	FS01	Soluble	Solid	300.0	32845

QC Association Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

HPLC/IC (Continued)

Analysis Batch: 32874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-4	FS02	Soluble	Solid	300.0	32845
890-2798-5	FS03	Soluble	Solid	300.0	32845
890-2798-6	FS04	Soluble	Solid	300.0	32845
890-2798-7	FS05	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2798-1 MS	BH02A	Soluble	Solid	300.0	32845
890-2798-1 MSD	BH02A	Soluble	Solid	300.0	32845

Lab Chronicle

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: BH02A
Date Collected: 08/22/22 10:30
Date Received: 08/23/22 08:18

Lab Sample ID: 890-2798-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 16:07	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 12:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 21:32	SMC	EET MID

Client Sample ID: BH05A
Date Collected: 08/22/22 10:35
Date Received: 08/23/22 08:18

Lab Sample ID: 890-2798-2
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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 16:38	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 13:12	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 21:56	SMC	EET MID

Client Sample ID: FS01
Date Collected: 08/22/22 12:00
Date Received: 08/23/22 08:18

Lab Sample ID: 890-2798-3
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			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 17:04	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 13:34	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:03	SMC	EET MID

Client Sample ID: FS02
Date Collected: 08/22/22 12:05
Date Received: 08/23/22 08:18

Lab Sample ID: 890-2798-4
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			5.02 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 17:30	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: FS02

Lab Sample ID: 890-2798-4
Matrix: Solid
Date Collected: 08/22/22 12:05
Date Received: 08/23/22 08:18

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			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 13:55	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:11	SMC	EET MID

Client Sample ID: FS03

Lab Sample ID: 890-2798-5
Matrix: Solid
Date Collected: 08/22/22 12:10
Date Received: 08/23/22 08:18

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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 17:56	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 14:17	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:19	SMC	EET MID

Client Sample ID: FS04

Lab Sample ID: 890-2798-6
Matrix: Solid
Date Collected: 08/22/22 12:35
Date Received: 08/23/22 08:18

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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 18:22	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 14:38	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:43	SMC	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-2798-7
Matrix: Solid
Date Collected: 08/22/22 12:45
Date Received: 08/23/22 08:18

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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 20:07	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 15:00	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Client Sample ID: FS05
Date Collected: 08/22/22 12:45
Date Received: 08/23/22 08:18

Lab Sample ID: 890-2798-7
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			4.96 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:51	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1
SDG: 03D2024008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2798-1	BH02A	Solid	08/22/22 10:30	08/23/22 08:18	2
890-2798-2	BH05A	Solid	08/22/22 10:35	08/23/22 08:18	2
890-2798-3	FS01	Solid	08/22/22 12:00	08/23/22 08:18	1
890-2798-4	FS02	Solid	08/22/22 12:05	08/23/22 08:18	1
890-2798-5	FS03	Solid	08/22/22 12:10	08/23/22 08:18	1
890-2798-6	FS04	Solid	08/22/22 12:35	08/23/22 08:18	1
890-2798-7	FS05	Solid	08/22/22 12:45	08/23/22 08:18	1

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	Macho Nacho #10 CTB	Turn Around	☐ Routine ☑ Rush
Project Number:	03D2024008	Due Date:	24 Hr
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TOM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.8	
Total Containers:		Corrected Temperature:	1.6	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2S0_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

890-2798 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
BH02A	S	8.22.22	1030	2'	G	1		x	x	x	NAPP2132756247
BH05A	S	8.22.22	1035	2'	G	1		x	x	x	
FS01	S	8.22.22	1200	1'	C G	1		x	x	x	
FS02	S	8.22.22	1205	1'	C G	1		x	x	x	
FS03	S	8.22.22	1210	1'	C G	1		x	x	x	
FS04	S	8.22.22	1235	1'	C G	1		x	x	x	
FS05	S	8.22.22	1245	1'	C G	1		x	x	x	
					↑						
					G						

Parameters

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		8-23-22 8:18	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2798-1
SDG Number: 03D2024008

Login Number: 2798
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: 890-2798-1
SDG Number: 03D2024008

Login Number: 2798
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/24/22 10:58 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

NMOCD Notifications

From: Beauvais, Charles R
To: Kalei Jennings
Subject: FW: [EXTERNAL](Extension Denied) - Macho Nacho (Incident Number NAPP2132756247)
Date: Tuesday, April 12, 2022 12:46:38 PM
Attachments: image003.png

[**EXTERNAL EMAIL**]

Per our discussion.

From: Esparza, Brittany <Brittany.Esparza@conocophillips.com>
Sent: Tuesday, April 12, 2022 7:56 AM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Subject: FW: [EXTERNAL](Extension Denied) - Macho Nacho (Incident Number NAPP2132756247)

Charles, not sure if you saw this one or not but it was denied.

Thank you,
Brittany N. Esparza
Brittany N. Esparza | **Environmental Technician, Permian** | **ConocoPhillips**
O: 432-221-0398 | **C**: 432-349-1911 | 1CC-331 Midland, Texas

---

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Friday, April 8, 2022 4:38 PM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Cc: Esparza, Brittany <Brittany.Esparza@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: [EXTERNAL](Extension Denied) - Macho Nacho (Incident Number NAPP2132756247)

CAUTION:This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

RE: Incident #**NAPP2132756247**

Charles,

An extension for this release has already been granted. A remediation plan for this incident was due on 3/10/2022. Your request for another extension is **denied**. Include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced

Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Sent: Friday, April 8, 2022 3:00 PM
To: Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXTERNAL] Extension Request- Macho Nacho (Incident Number NAPP2132756247)

To Whom It May Concern,

COP is requesting an extension of the current April 10, 2022 deadline for submitting a Remediation Work Plan or Closure Report required in 19.15.29.12.B.(1) NMAC for the Macho Nacho State Com 010 CTB (Incident Number NAPP2132756247). The release was discovered on November 11, 2021 and remediation activities are ongoing. In addition, COP intends to drill a depth to water boring to confirm the closure criteria at the Site. In order to complete remediation activities, allow time to drill the depth to water boring, and submit a remediation work plan or closure report, COP request a 90-day extension of the deadline until July 10, 2022.

Respectfully,

Charles R. Beauvais II
Senior Environmental Engineer | Environmental Operations | **ConocoPhillips**
(M) 575-988-2043
Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.

ConocoPhillips

From: Beauvais, Charles R
To: Kalei Jennings
Subject: FW: Extension Request- Macho Nacho (Incident Number NAPP2132756247)
Date: Tuesday, April 12, 2022 12:48:03 PM
Attachments: image001.png
Macho Nacho Table (NAPP2132756247).pdf

[**EXTERNAL EMAIL**]

FYI

From: Beauvais, Charles R
Sent: Friday, April 8, 2022 3:00 PM
To: Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: Extension Request- Macho Nacho (Incident Number NAPP2132756247)

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Respectfully,

Charles R. Beauvais **II**
Senior Environmental Engineer **|** Environmental Operations **| ConocoPhillips**
(M) 575-988-2043
Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.

ENSOLUM

APPENDIX F

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	NAPP2132756247
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		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	

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

Initial Response

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

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 11/29/2021

L48 Spill Volume Estimate Form

ber:	Macho Nacho #10
Asset Area:	Delaware basin east north
Release Discovery Date & Time:	11/10/2021 9:10am
Release Type:	Oil
Provide any known details about the event:	Heater swamped out causing flare fire

NAPP2132756247

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	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	147.0	43.0	0.02	4	6321.000	0.000	0.469	0.000	0.469			
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
								Total Volume Release:	0.469			

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	229137
	Action Number: 63483
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	11/29/2021

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

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

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

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 08/30/2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 08/30/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2132756247
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: Charles R. Beauvais II Date: 8/30/2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 08/30/2022

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: 09/07/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

District I
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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 139603

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 139603
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	9/7/2022