



WSP USA

3300 North "A" Street  
Building 1, Unit 222  
Midland, Texas 79705  
432.704.5178

March 21, 2022

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

**RE: Closure Request  
Warren Unit 204  
Incident Number NAPP2135033062  
Lea County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of ConocoPhillips Company (COP), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Warren Unit 204 (Site) located in Unit M, Section 34, Township 20 South, Range 38 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil and produced water onto the lease road at the Site. Based on excavation activities completed and soil sample analytical results, COP is submitting this Closure Request and requesting no further action (NFA) for Incident Number NAPP2135033062.

## **RELEASE BACKGROUND**

On December 3, 2021, corrosion of a flowline resulted in the release of approximately 4.62 barrels (bbls) of produced water and 0.4 bbls of crude oil onto the lease road. A vacuum truck was dispatched to the Site but there were no free-standing fluids to recover. COP reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on December 16, 2021. The release was assigned Incident Number NAPP2135033062.

## **SITE CHARACTERIZATION**

WSP characterized the Site 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). Depth to groundwater at the Site is estimated to be between 50-100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well L-13546-POD1, located approximately 0.3 miles southeast of the Site. The groundwater well has a reported depth to groundwater of 73 feet bgs and a total depth of 88 feet bgs. All wells used



for depth to groundwater determination are depicted on Figure 1 and the associated referenced well records are included in Attachment 1.

The closest continuously flowing water or significant watercourse to the Site is a dry wash, located approximately 7,596 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

## **CLOSURE CRITERIA**

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: 10,000 mg/kg

## **SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS**

On December 13, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected four preliminary assessment soil samples (SS01 through SS04) within the release extent from a depth of 0.25 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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 (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.



Laboratory analytical results for preliminary soil samples SS01, SS02, and SS04 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, and TPH concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil sample SS03 indicated that BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples, excavation activities were warranted.

## **EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS**

On March 3, 2022, WSP personnel returned to the Site to oversee excavation activities as indicated by surficial staining in the release footprint and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using a backhoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the 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 floor samples FS01 through FS13 were collected from the floor of the excavation at depths ranging from 1-foot bgs to 1.5 feet bgs. Due to the shallow depth of the excavation, the floor samples are also representative of the excavation sidewalls. The excavation 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 3. Photographic documentation is included in Attachment 2.

The excavation area measured approximately 2,547 square feet. A total of approximately 142 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at R360 disposal facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was backfilled.

Laboratory analytical results for excavation floor samples FS01 through FS13, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 3.

## **CLOSURE REQUEST**

Site assessment and excavation activities were conducted at the Site to address the December 3, 2021 release of crude oil and produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that 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



District I  
Page 4

analytical results, no further remediation was required. COP backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

Excavation of impacted soil has mitigated impacts at the Site. Depth to groundwater is estimated to be between 50-100 feet bgs and no other sensitive receptors were identified near the release extent. WSP and COP believe these remedial actions are protective of human health, the environment, and groundwater. As such, COP respectfully requests no further action for Incident Number NAPP2135033062. The final Form C-141 is included in Attachment 4.

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads 'Kalei Jennings'.

Kalei Jennings  
Consultant, Environmental Scientist

A handwritten signature in black ink that reads 'Aimee Cole'.

Aimee Cole  
Sr. Consultant, Environmental Scientist

cc: Rahul Kaushik, ConocoPhillips Company

Attachments:

Figure 1 Site Location Map  
Figure 2 Preliminary Soil Sample Locations  
Figure 3 Excavation Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Referenced Well Record  
Attachment 2 Photographic Log  
Attachment 3 Laboratory Analytical Reports  
Attachment 4 Final C-141

FIGURES





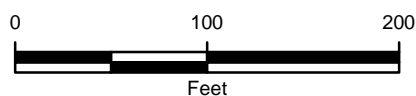




**LEGEND**

- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- FLOWLINE
- - - RELEASE EXTENT

IMAGE COURTESY OF ESRI

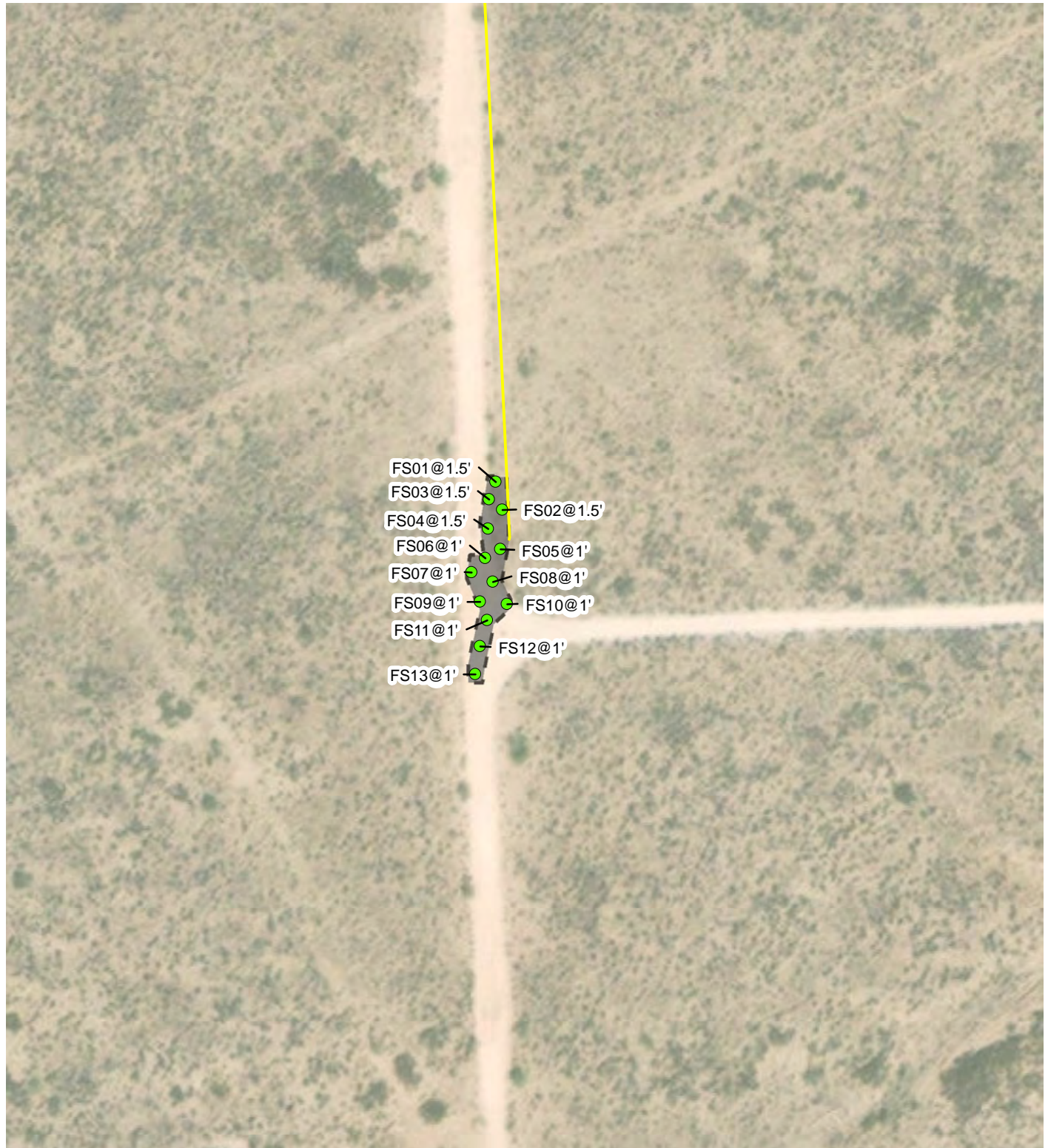


NOTE: INCIDENT NUMBER NAPP2135033062  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 2**  
**PRELIMINARY SOIL SAMPLE LOCATIONS**  
WARREN UNIT 204  
UNIT M SEC 34 T20S R38E  
LEA COUNTY, NEW MEXICO  
**CONOCOPHILLIPS COMPANY**





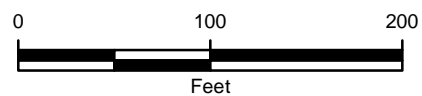
**LEGEND**

● FLOOR SAMPLE IN COMPLIANCE  
WITH APPLICABLE CLOSURE CRITERIA

— FLOWLINE

█ EXCAVATION EXTENT

IMAGE COURTESY OF ESRI



NOTE: INCIDENT NUMBER NAPP2135033062  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 3**  
**EXCAVATION SOIL SAMPLE LOCATIONS**  
WARREN UNIT 204  
UNIT M SEC 34 T20S R38E  
LEA COUNTY, NEW MEXICO  
**CONOCOPHILLIPS COMPANY**





TABLES

Table 1

**Soil Analytical Results**  
**Warren Unit 204**  
**Incident Number NAPP2135033062**  
**ConocoPhillips Company**  
**Lea County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table 1 Closure Criteria (NMAC 19.15.29)</b>			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Surface Samples</b>										
SS01	12/13/2021	0.25	0.00654	0.012	<49.9	<49.9	<49.9	<49.9	<49.9	8,510
SS02	12/13/2021	0.25	0.00379	0.0131	<49.9	<49.9	<49.9	<49.9	<49.9	6,520
SS03	12/13/2021	0.25	9.86	<b>200</b>	5,640	2870	<250	<b>8,510</b>	<b>8,510</b>	5,310
SS04	12/13/2021	0.25	0.0436	0.2340	<49.8	<49.8	<49.8	<49.9	<49.8	5,880
<b>Excavation Floor Samples</b>										
FS01	03/03/2022	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	6.73
FS02	03/03/2022	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	8.68
FS03	03/03/2022	1.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	8.40
FS04	03/03/2022	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	6.23
FS05	03/03/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	8.36
FS06	03/03/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
FS07	03/03/2022	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	9.36
FS08	03/03/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	24.3
FS09	03/03/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	21.8
FS10	03/03/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	11.7
FS11	03/03/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	12.1
FS12	03/03/2022	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	54.7
FS13	03/03/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	56.5

**Notes**

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

&lt; - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

**BOLD** - indicates results exceed the higher of the background sample result or applicable regulatory standard

Text

impacted soil was excavated

ATTACHMENT 1: REFERENCED WELL RECORD





# New Mexico Office of the State Engineer

## Water Right Summary


[get image list](#)

WR File Number: L 13546

Subbasin: L

Cross Reference: -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres:

Subfile: -

Header: -

Total Diversion: 0

Cause/Case: -

Owner: WHITE DRILLING COMPANY INC


Contact: IRENE M WHITE

### Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
<a href="#">get images</a>	543306	EXPL	2014-03-19	PMT	LOG	L-13546	T	0	0	

### Current Points of Diversion

(NAD83 UTM in meters)

(NAD83 UTM in meters)											
POD Number	Well Tag	Source	Q						X	Y	Other Location Desc
			64Q	16Q	4Sec	Tws	Rng				
<a href="#">L 13546 POD1</a>		Shallow	4	4	3	34	20S	38E	675011	3600037	 MW-1

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


12/8/21 9:43 AM

WATER RIGHT SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L	13546 POD1	4	4	3	34	20S	38E	675011	3600037 

---

**Driller License:** 1456      **Driller Company:** WHITE DRILLING COMPANY

**Driller Name:** JOHN W. WHITE

**Drill Start Date:** 06/17/2014      **Drill Finish Date:** 06/17/2014      **Plug Date:**

**Log File Date:** 10/02/2014      **PCW Rev Date:**      **Source:** Shallow

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

**Casing Size:** 2.00      **Depth Well:** 88 feet      **Depth Water:**

---

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	73	88	Other/Unknown

---

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	56	86

---

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

12/8/21 9:43 AM

POINT OF DIVERSION SUMMARY



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## National Water Information System: Web Interface

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

Click to hide News 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 323126103080701 20S.38E.34.233234

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

## Well Site

### DESCRIPTION:

Latitude 32°31'26", Longitude 103°08'07" NAD27  
Lea County, New Mexico , Hydrologic Unit 13070007  
Well depth: not determined.  
Land surface altitude: 3,516 feet above NAVD88.  
Well completed in "High Plains aquifer" (N100HGHPLN) national aquifer.  
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1961-02-23	1981-02-10	4
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

### OPERATION:

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

[Questions about sites/data?](#)

[Feedback on this web site](#)

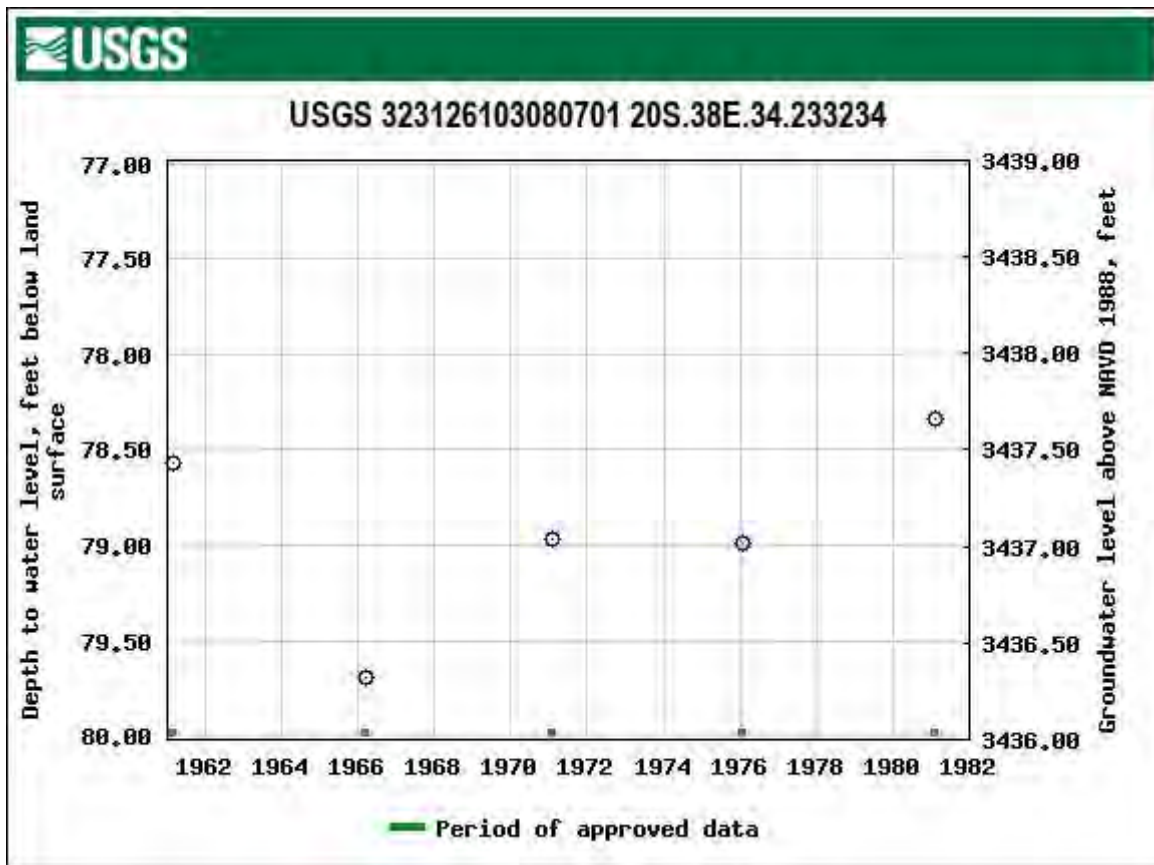
[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)







ATTACHMENT 2: PHOTOGRAPHIC LOG



## PHOTOGRAPHIC LOG

<b>ConocoPhillips Company</b>	<b>Warren Unit 204 Lea County, New Mexico</b>	<b>NAPP2135033062</b>
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<b>Photo No.</b>	<b>Date</b>	
1	December 13, 2021	
Photo of release extent observed during the initial site assessment.		

<b>Photo No.</b>	<b>Date</b>	
2	December 13, 2021	
Photo of release extent observed during the initial site assessment.		





PHOTOGRAPHIC LOG		
ConocoPhillips Company	Warren Unit 204 Lea County, New Mexico	NAPP2135033062

Photo No.	Date	
3	March 3, 2022	
Photo of excavation completed.		

Photo No.	Date	
4	March 3, 2022	
Photo of excavation completed.		

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1705-1

Laboratory Sample Delivery Group: 31403720.000 Task n23.02  
Client Project/Site: Warren Unit 204

**For:**

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
12/20/2021 2:57:41 PM

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

#### LINKS

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

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

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Laboratory Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

## 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
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

**Job ID: 890-1705-1****Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative  
890-1705-1****Receipt**

The samples were received on 12/13/2021 1:19 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**

Method 8021B: The following sample was diluted due to the nature of the sample matrix: SS03 (890-1705-3) at 50.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The following sample was diluted due to the nature of the sample matrix: SS03 (890-1705-3) at 200.0. Elevated reporting limits (RLs) are provided.

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

**GC Semi VOA**

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate precision for preparation batch 880-14785 and analytical batch 880-14897 was 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.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: SS03 (890-1705-3). 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: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Client Sample ID: SS01

Lab Sample ID: 890-1705-1

Date Collected: 12/13/21 09:10

Matrix: Solid

Date Received: 12/13/21 13:19

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00654		0.00200	mg/Kg		12/15/21 07:30	12/15/21 22:18	1
Toluene	0.00493		0.00200	mg/Kg		12/15/21 07:30	12/15/21 22:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/15/21 07:30	12/15/21 22:18	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/15/21 07:30	12/15/21 22:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/15/21 07:30	12/15/21 22:18	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/15/21 07:30	12/15/21 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	12/15/21 07:30	12/15/21 22:18	1
1,4-Difluorobenzene (Surr)	106		70 - 130	12/15/21 07:30	12/15/21 22:18	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0115		0.00401	mg/Kg			12/20/21 15:38	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			12/17/21 09:16	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		12/14/21 15:12	12/16/21 20:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/14/21 15:12	12/16/21 20:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 15:12	12/16/21 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	12/14/21 15:12	12/16/21 20:21	1
o-Terphenyl	102		70 - 130	12/14/21 15:12	12/16/21 20:21	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8510		50.1	mg/Kg			12/20/21 00:39	10

Client Sample ID: SS02

Lab Sample ID: 890-1705-2

Date Collected: 12/13/21 09:19

Matrix: Solid

Date Received: 12/13/21 13:19

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00379		0.00199	mg/Kg		12/15/21 07:30	12/15/21 22:38	1
Toluene	0.00706		0.00199	mg/Kg		12/15/21 07:30	12/15/21 22:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/15/21 07:30	12/15/21 22:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/15/21 07:30	12/15/21 22:38	1
o-Xylene	0.00221		0.00199	mg/Kg		12/15/21 07:30	12/15/21 22:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/15/21 07:30	12/15/21 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	12/15/21 07:30	12/15/21 22:38	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Client Sample ID: SS02

Lab Sample ID: 890-1705-2

Date Collected: 12/13/21 09:19

Matrix: Solid

Date Received: 12/13/21 13:19

Sample Depth: 0.25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	12/15/21 07:30	12/15/21 22:38	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0131		0.00398	mg/Kg			12/20/21 15:38	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			12/17/21 09:16	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		12/14/21 15:12	12/16/21 20:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/14/21 15:12	12/16/21 20:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 15:12	12/16/21 20:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			12/14/21 15:12	12/16/21 20:42	1
o-Terphenyl	104		70 - 130			12/14/21 15:12	12/16/21 20:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6520		49.5	mg/Kg			12/20/21 00:51	10

Client Sample ID: SS03

Lab Sample ID: 890-1705-3

Date Collected: 12/13/21 09:23

Matrix: Solid

Date Received: 12/13/21 13:19

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.86		0.399	mg/Kg		12/17/21 07:45	12/17/21 13:14	200
Toluene	58.0		0.399	mg/Kg		12/17/21 07:45	12/17/21 13:14	200
Ethylbenzene	52.6		0.399	mg/Kg		12/17/21 07:45	12/17/21 13:14	200
m-Xylene & p-Xylene	57.3		0.798	mg/Kg		12/17/21 07:45	12/17/21 13:14	200
o-Xylene	22.7		0.399	mg/Kg		12/17/21 07:45	12/17/21 13:14	200
Xylenes, Total	80.0		0.798	mg/Kg		12/17/21 07:45	12/17/21 13:14	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121550	S1+	70 - 130	12/15/21 07:30	12/15/21 22:59	50
1,4-Difluorobenzene (Surr)	61789	S1+	70 - 130	12/15/21 07:30	12/15/21 22:59	50

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	200		0.798	mg/Kg			12/20/21 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	8510		250	mg/Kg			12/17/21 09:16	1

Eurofins Xenco, Carlsbad



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Client Sample ID: SS03

Lab Sample ID: 890-1705-3

Date Collected: 12/13/21 09:23

Matrix: Solid

Date Received: 12/13/21 13:19

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	2870		250	mg/Kg		12/14/21 15:12	12/16/21 21:24	5
Diesel Range Organics (Over C10-C28)	5640		250	mg/Kg		12/14/21 15:12	12/16/21 21:24	5
OII Range Organics (Over C28-C36)	<250	U	250	mg/Kg		12/14/21 15:12	12/16/21 21:24	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130			12/14/21 15:12	12/16/21 21:24	5
o-Terphenyl	88		70 - 130			12/14/21 15:12	12/16/21 21:24	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5310		25.2	mg/Kg			12/20/21 01:03	5

Client Sample ID: SS04

Lab Sample ID: 890-1705-4

Date Collected: 12/13/21 09:26

Matrix: Solid

Date Received: 12/13/21 13:19

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0436		0.00202	mg/Kg		12/15/21 07:30	12/15/21 23:19	1
Toluene	0.0983		0.00202	mg/Kg		12/15/21 07:30	12/15/21 23:19	1
Ethylbenzene	0.0362		0.00202	mg/Kg		12/15/21 07:30	12/15/21 23:19	1
m-Xylene & p-Xylene	0.0412		0.00403	mg/Kg		12/15/21 07:30	12/15/21 23:19	1
o-Xylene	0.0151		0.00202	mg/Kg		12/15/21 07:30	12/15/21 23:19	1
Xylenes, Total	0.0563		0.00403	mg/Kg		12/15/21 07:30	12/15/21 23:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			12/15/21 07:30	12/15/21 23:19	1
1,4-Difluorobenzene (Surr)	108		70 - 130			12/15/21 07:30	12/15/21 23:19	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.234		0.00403	mg/Kg			12/20/21 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/17/21 09:16	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	<49.8	U	49.8	mg/Kg		12/14/21 15:12	12/16/21 21:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/14/21 15:12	12/16/21 21:45	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/14/21 15:12	12/16/21 21:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			12/14/21 15:12	12/16/21 21:45	1
o-Terphenyl	102		70 - 130			12/14/21 15:12	12/16/21 21:45	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Client Sample ID: SS04  
Date Collected: 12/13/21 09:26  
Date Received: 12/13/21 13:19  
Sample Depth: 0.25

Lab Sample ID: 890-1705-4  
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	5880		25.0	mg/Kg			12/20/21 01:15	5	

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
880-9270-A-21-D MS	Matrix Spike	109	100				
880-9270-A-21-E MSD	Matrix Spike Duplicate	106	95				
890-1705-1	SS01	107	106				
890-1705-1 MS	SS01	105	100				
890-1705-1 MSD	SS01	108	102				
890-1705-2	SS02	120	94				
890-1705-3	SS03	121550	61789				
		S1+	S1+				
890-1705-4	SS04	116	108				
LCS 880-14781/1-A	Lab Control Sample	106	104				
LCS 880-14948/1-A	Lab Control Sample	103	97				
LCSD 880-14781/2-A	Lab Control Sample Dup	104	106				
LCSD 880-14948/2-A	Lab Control Sample Dup	102	95				
MB 880-14762/5-A	Method Blank	127	105				
MB 880-14781/5-A	Method Blank	105	95				
MB 880-14948/5-A	Method Blank	115	108				
<b>Surrogate Legend</b>							
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	OTPH1				
		(70-130)	(70-130)				
890-1705-1	SS01	103	102				
890-1705-2	SS02	103	104				
890-1705-3	SS03	131 S1+	88				
890-1705-4	SS04	103	102				
890-1707-A-13-C MS	Matrix Spike	91	94				
890-1707-A-13-D MSD	Matrix Spike Duplicate	94	92				
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	OTPH2				
		(70-130)	(70-130)				
LCS 880-14785/2-A	Lab Control Sample	93	98				
LCSD 880-14785/3-A	Lab Control Sample Dup	108	105				
MB 880-14785/1-A	Method Blank	104	105				
<b>Surrogate Legend</b>							
1CO = 1-Chlorooctane							
OTPH = o-Terphenyl							

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

Lab Sample ID: MB 880-14762/5-A

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14762

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 13:00	12/15/21 11:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 13:00	12/15/21 11:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 13:00	12/15/21 11:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/14/21 13:00	12/15/21 11:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 13:00	12/15/21 11:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/14/21 13:00	12/15/21 11:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	12/14/21 13:00	12/15/21 11:03	1
1,4-Difluorobenzene (Surr)	105		70 - 130	12/14/21 13:00	12/15/21 11:03	1

Lab Sample ID: MB 880-14781/5-A

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14781

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/15/21 07:30	12/15/21 21:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/15/21 07:30	12/15/21 21:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/15/21 07:30	12/15/21 21:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/15/21 07:30	12/15/21 21:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/15/21 07:30	12/15/21 21:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/15/21 07:30	12/15/21 21:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	12/15/21 07:30	12/15/21 21:56	1
1,4-Difluorobenzene (Surr)	95		70 - 130	12/15/21 07:30	12/15/21 21:56	1

Lab Sample ID: LCS 880-14781/1-A

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08250		mg/Kg		82	70 - 130
Toluene	0.100	0.07543		mg/Kg		75	70 - 130
Ethylbenzene	0.100	0.07558		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	0.200	0.1566		mg/Kg		78	70 - 130
o-Xylene	0.100	0.07945		mg/Kg		79	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-14781/2-A

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14781

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08617		mg/Kg		86	70 - 130	4	35

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

Lab Sample ID: LCSD 880-14781/2-A

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14781

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.07850		mg/Kg		79	70 - 130	4	35
Ethylbenzene	0.100	0.07743		mg/Kg		77	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1597		mg/Kg		80	70 - 130	2	35
o-Xylene	0.100	0.08121		mg/Kg		81	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 890-1705-1 MS

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 14781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.00654		0.100	0.08400		mg/Kg		77	70 - 130
Toluene	0.00493		0.100	0.07589		mg/Kg		71	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.07750		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1630		mg/Kg		80	70 - 130
o-Xylene	<0.00200	U	0.100	0.08198		mg/Kg		81	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-1705-1 MSD

Matrix: Solid

Analysis Batch: 14797

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 14781

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00654		0.101	0.08220		mg/Kg		75	70 - 130	2	35
Toluene	0.00493		0.101	0.07806		mg/Kg		72	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.101	0.07890		mg/Kg		77	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.202	0.1638		mg/Kg		80	70 - 130	0	35
o-Xylene	<0.00200	U	0.101	0.08019		mg/Kg		79	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-14948/5-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14948

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/17/21 07:45	12/17/21 11:31	1

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

Lab Sample ID: MB 880-14948/5-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14948

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			12/17/21 07:45	12/17/21 11:31	1
1,4-Difluorobenzene (Surr)	108		70 - 130			12/17/21 07:45	12/17/21 11:31	1

Lab Sample ID: LCS 880-14948/1-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14948

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07475		mg/Kg		75	70 - 130
Toluene	0.100	0.07368		mg/Kg		74	70 - 130
Ethylbenzene	0.100	0.07658		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	0.200	0.1602		mg/Kg		80	70 - 130
o-Xylene	0.100	0.07919		mg/Kg		79	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	103		70 - 130				
1,4-Difluorobenzene (Surr)	97		70 - 130				

Lab Sample ID: LCSD 880-14948/2-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14948

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07437		mg/Kg		74	70 - 130	1	35
Toluene	0.100	0.07413		mg/Kg		74	70 - 130	1	35
Ethylbenzene	0.100	0.07081		mg/Kg		71	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1468		mg/Kg		73	70 - 130	9	35
o-Xylene	0.100	0.07575		mg/Kg		76	70 - 130	4	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		70 - 130						
1,4-Difluorobenzene (Surr)	95		70 - 130						

Lab Sample ID: 880-9270-A-21-D MS

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1	0.0994	0.06210	F1	mg/Kg		62	70 - 130
Toluene	<0.00199	U F1	0.0994	0.06033	F1	mg/Kg		61	70 - 130
Ethylbenzene	<0.00199	U F1	0.0994	0.06165	F1	mg/Kg		62	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1291	F1	mg/Kg		65	70 - 130
o-Xylene	<0.00199	U F1	0.0994	0.06691	F1	mg/Kg		67	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

Lab Sample ID: 880-9270-A-21-D MS

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14948

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-9270-A-21-E MSD

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 14948

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06118	F1	mg/Kg		61	70 - 130	2	35
Toluene	<0.00199	U F1	0.100	0.06189	F1	mg/Kg		62	70 - 130	3	35
Ethylbenzene	<0.00199	U F1	0.100	0.06189	F1	mg/Kg		62	70 - 130	0	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1306	F1	mg/Kg		65	70 - 130	1	35
o-Xylene	<0.00199	U F1	0.100	0.06416	F1	mg/Kg		64	70 - 130	4	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-14785/1-A

Matrix: Solid

Analysis Batch: 14897

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14785

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		12/14/21 15:12	12/16/21 15:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 15:12	12/16/21 15:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 15:12	12/16/21 15:52	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	104		70 - 130	12/14/21 15:12	12/16/21 15:52	1		
o-Terphenyl	105		70 - 130	12/14/21 15:12	12/16/21 15:52	1		

Lab Sample ID: LCS 880-14785/2-A

Matrix: Solid

Analysis Batch: 14897

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	869.6		mg/Kg		87	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	852.6		mg/Kg		85	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	98		70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

Lab Sample ID: LCSD 880-14785/3-A

Matrix: Solid

Analysis Batch: 14897

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14785

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	939.7		mg/Kg		94	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	938.2		mg/Kg		94	70 - 130	10	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	108		70 - 130						
o-Terphenyl	105		70 - 130						

Lab Sample ID: 890-1707-A-13-C MS

Matrix: Solid

Analysis Batch: 14897

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	996	943.1		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1025		mg/Kg		103	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	91		70 - 130								
o-Terphenyl	94		70 - 130								

Lab Sample ID: 890-1707-A-13-D MSD

Matrix: Solid

Analysis Batch: 14897

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 14785

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 F2	995	1236	F2	mg/Kg		120	70 - 130	27	20
Diesel Range Organics (Over C10-C28)	<50.0	U	995	1006		mg/Kg		101	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	94		70 - 130								
o-Terphenyl	92		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14834/1-A

Matrix: Solid

Analysis Batch: 14983

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			12/19/21 19:18	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-14834/2-A

Matrix: Solid

Analysis Batch: 14983

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	264.8		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-14834/3-A

Matrix: Solid

Analysis Batch: 14983

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	268.8		mg/Kg		108	90 - 110	1	20

Lab Sample ID: 890-1704-A-22-H MS

Matrix: Solid

Analysis Batch: 14983

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	2220		1240	3536		mg/Kg		106	90 - 110

Lab Sample ID: 890-1704-A-22-I MSD

Matrix: Solid

Analysis Batch: 14983

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	2220		1240	3473		mg/Kg		101	90 - 110	2	20

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

## GC VOA

## Prep Batch: 14762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14762/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 14781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Total/NA	Solid	5035	
890-1705-2	SS02	Total/NA	Solid	5035	
890-1705-3	SS03	Total/NA	Solid	5035	
890-1705-4	SS04	Total/NA	Solid	5035	
MB 880-14781/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14781/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14781/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1705-1 MS	SS01	Total/NA	Solid	5035	
890-1705-1 MSD	SS01	Total/NA	Solid	5035	

## Analysis Batch: 14797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Total/NA	Solid	8021B	14781
890-1705-2	SS02	Total/NA	Solid	8021B	14781
890-1705-3	SS03	Total/NA	Solid	8021B	14781
890-1705-4	SS04	Total/NA	Solid	8021B	14781
MB 880-14762/5-A	Method Blank	Total/NA	Solid	8021B	14762
MB 880-14781/5-A	Method Blank	Total/NA	Solid	8021B	14781
LCS 880-14781/1-A	Lab Control Sample	Total/NA	Solid	8021B	14781
LCSD 880-14781/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14781
890-1705-1 MS	SS01	Total/NA	Solid	8021B	14781
890-1705-1 MSD	SS01	Total/NA	Solid	8021B	14781

## Prep Batch: 14948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-3	SS03	Total/NA	Solid	5035	
MB 880-14948/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14948/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14948/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9270-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
880-9270-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 15017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-3	SS03	Total/NA	Solid	8021B	14948
MB 880-14948/5-A	Method Blank	Total/NA	Solid	8021B	14948
LCS 880-14948/1-A	Lab Control Sample	Total/NA	Solid	8021B	14948
LCSD 880-14948/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14948
880-9270-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	14948
880-9270-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14948

## Analysis Batch: 15211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Total/NA	Solid	Total BTEX	
890-1705-2	SS02	Total/NA	Solid	Total BTEX	
890-1705-3	SS03	Total/NA	Solid	Total BTEX	
890-1705-4	SS04	Total/NA	Solid	Total BTEX	

Eurofins Xenco, Carlsbad



## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

## GC Semi VOA

## Prep Batch: 14785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Total/NA	Solid	8015NM Prep	
890-1705-2	SS02	Total/NA	Solid	8015NM Prep	
890-1705-3	SS03	Total/NA	Solid	8015NM Prep	
890-1705-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-14785/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14785/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14785/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1707-A-13-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1707-A-13-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 14897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Total/NA	Solid	8015B NM	14785
890-1705-2	SS02	Total/NA	Solid	8015B NM	14785
890-1705-3	SS03	Total/NA	Solid	8015B NM	14785
890-1705-4	SS04	Total/NA	Solid	8015B NM	14785
MB 880-14785/1-A	Method Blank	Total/NA	Solid	8015B NM	14785
LCS 880-14785/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14785
LCSD 880-14785/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14785
890-1707-A-13-C MS	Matrix Spike	Total/NA	Solid	8015B NM	14785
890-1707-A-13-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14785

## Analysis Batch: 15045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Total/NA	Solid	8015 NM	
890-1705-2	SS02	Total/NA	Solid	8015 NM	
890-1705-3	SS03	Total/NA	Solid	8015 NM	
890-1705-4	SS04	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 14834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Soluble	Solid	DI Leach	
890-1705-2	SS02	Soluble	Solid	DI Leach	
890-1705-3	SS03	Soluble	Solid	DI Leach	
890-1705-4	SS04	Soluble	Solid	DI Leach	
MB 880-14834/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14834/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14834/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1704-A-22-H MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1704-A-22-I MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 14983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1705-1	SS01	Soluble	Solid	300.0	14834
890-1705-2	SS02	Soluble	Solid	300.0	14834
890-1705-3	SS03	Soluble	Solid	300.0	14834
890-1705-4	SS04	Soluble	Solid	300.0	14834
MB 880-14834/1-A	Method Blank	Soluble	Solid	300.0	14834
LCS 880-14834/2-A	Lab Control Sample	Soluble	Solid	300.0	14834

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

HPLC/IC (Continued)

Analysis Batch: 14983 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-14834/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14834
890-1704-A-22-H MS	Matrix Spike	Soluble	Solid	300.0	14834
890-1704-A-22-I MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14834

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- 2
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- 10
- 11
- 12
- 13
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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Client Sample ID: SS01

Lab Sample ID: 890-1705-1

Date Collected: 12/13/21 09:10

Matrix: Solid

Date Received: 12/13/21 13:19

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	14781	12/15/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14797	12/15/21 22:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14785	12/14/21 15:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14897	12/16/21 20:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	14834	12/15/21 11:26	CA	XEN MID
Soluble	Analysis	300.0		10			14983	12/20/21 00:39	SC	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1705-2

Date Collected: 12/13/21 09:19

Matrix: Solid

Date Received: 12/13/21 13:19

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	14781	12/15/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14797	12/15/21 22:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14785	12/14/21 15:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14897	12/16/21 20:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14834	12/15/21 11:26	CA	XEN MID
Soluble	Analysis	300.0		10			14983	12/20/21 00:51	SC	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1705-3

Date Collected: 12/13/21 09:23

Matrix: Solid

Date Received: 12/13/21 13:19

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	14781	12/15/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	14797	12/15/21 22:59	KL	XEN MID
Total/NA	Prep	5035			5.01 g	5 mL	14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		200	5 mL	5 mL	15017	12/17/21 13:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14785	12/14/21 15:12	DM	XEN MID
Total/NA	Analysis	8015B NM		5			14897	12/16/21 21:24	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	14834	12/15/21 11:26	CA	XEN MID
Soluble	Analysis	300.0		5			14983	12/20/21 01:03	SC	XEN MID

Eurofins Xenco, Carlsbad

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Client Sample ID: SS04

Lab Sample ID: 890-1705-4

Date Collected: 12/13/21 09:26

Matrix: Solid

Date Received: 12/13/21 13:19

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	14781	12/15/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14797	12/15/21 23:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	14785	12/14/21 15:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14897	12/16/21 21:45	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14834	12/15/21 11:26	CA	XEN MID
Soluble	Analysis	300.0		5			14983	12/20/21 01:15	SC	XEN MID

## Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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

- 1
- 2
- 3
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- 12
- 13
- 14



## Method Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

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: Warren Unit 204

Job ID: 890-1705-1  
SDG: 31403720.000 Task n23.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1705-1	SS01	Solid	12/13/21 09:10	12/13/21 13:19	0.25
890-1705-2	SS02	Solid	12/13/21 09:19	12/13/21 13:19	0.25
890-1705-3	SS03	Solid	12/13/21 09:23	12/13/21 13:19	0.25
890-1705-4	SS04	Solid	12/13/21 09:26	12/13/21 13:19	0.25

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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)

Chain of Custody

Work Order No: \_\_\_\_\_

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

Program: <input checked="" type="checkbox"/> UST/ST <input type="checkbox"/> RP <input type="checkbox"/> Rowfields <input type="checkbox"/> RC <input type="checkbox"/> Spertund	
State of Project:	
Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> T/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Warren unit 204	Turn Around	
Project Number:	31403720.000 Task 23.02	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	
<b>SAMPLE RECEIPT</b>			
Temperature (°C):	1.4/1.2	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Received Inact:	Yes No	Thermometer ID	70007
Cooler Custody Seals:	Yes No	Correction Factor:	-0.2
Sample Custody Seals:	Yes No	Total Containers:	
<b>Sample Identification</b>			
Sample	Matrix	Date Sampled	Time Sampled
SS01	S	12/13/21	9:10
SS02	S	12/14/21	9:19
SS03	S	12/15/21	9:23
SS04	S	12/16/21	9:26
<b>Number of Containers</b>			
TPH (EPA 8015)			
BTEX (EPA 0=8021)			
Chloride (EPA 300.0)			
<b>ANALYSIS REQUEST</b>			
<b>Work Order Notes</b>			



890-1705 Chain of Custody

TAT starts the day received 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 Ti 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 Ti 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
<i>[Signature]</i>	<i>[Signature]</i>	12-13-21 13:19			

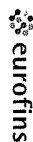
Eurofins Xenco, Carlsbad

1089 N Canal St.

Carlsbad NM 88220

Phone 575-988-3199 Fax 575-988-3199

## Chain of Custody Record



## Environment Testing America

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s)	COC No.									
Client Contact:		Phone:	Kramer, Jessica		890-543 1									
Shipping/Receiving		E-Mail	jessica.kramer@eurofinsnet.com	State of Origin, New Mexico	Page Page 1 of 1									
Company	Eurofins Xenco	Accreditations Required (See note) NELAP - Louisiana, NELAP - Texas		Job #	890-1705-1									
Address:	1211 W. Florida Ave	Due Date Requested	12/17/2021	Preservation Codes										
City:	Midland	TAT Requested (day/s):		A. HCL B. NaOH C. Zn Acetate D. Nitric Acid E. NaHSO4 F. MeOH G. Anchlor H. Ascorbic Acid I. Ice J. DI Water K. EDTA L. EDA Other:										
State Zip:	TX 79701	PO #:		M. Hexane N. None O. AsNaO2 P. Na2OAS Q. Na2SO3 R. Na2S2O3 S. H2SO4 T. TSP Dodecalhydrate U. Acetone V. MCAA W. pH 4-5 Z. other (specify)										
Phone:	432-704-5440(Tel)	WO #:												
Email:		Project #:	89000048											
Project Name:	Warren Unit 204	SSOW#:												
Site:														
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=C-comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=water/Oil, BT=Tissue, A=Air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>8016MOD_NM/8016NM_S_Prep Full TPH</b>	<b>300_ORGFM_28D/DI_LEACH Chloride</b>	<b>8021B/6036FP_Calc BTEX</b>	<b>Total_BTEX_GCV</b>	<b>8016MOD_Calc</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note:</b>
SS01 (890-1705-1)		12/13/21	09 10	Mountain	Solid	X	X	X	X	X				
SS02 (890-1705-2)		12/13/21	09 19	Mountain	Solid	X	X	X	X	X				
SS03 (890-1705-3)		12/13/21	09 23	Mountain	Solid	X	X	X	X	X				
SS04 (890-1705-4)		12/13/21	09 26	Mountain	Solid	X	X	X	X	X				
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/test/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 compliance to Eurofins Xenco LLC														
<b>Possible Hazard Identification</b>														
<b>Unconfirmed</b>														
Deliverable Requested I II III, IV Other (specify) Primary Deliverable Rank. 2														
Empty Kit Relinquished by														
Relinquished by Date/Time Date Company Received by Date/Time Company														
Relinquished by Date/Time Company														
Relinquished by Date/Time Company														
Custody Seals Intact: Custody Seal No														
Cooler Temperature(s) °C and Other Remarks														

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1705-1

SDG Number: 31403720.000 Task n23.02

Login Number: 1705

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1705-1

SDG Number: 31403720.000 Task n23.02

Login Number: 1705

List Source: Eurofins Xenco, Midland

List Number: 2

List Creation: 12/14/21 12:00 PM

Creator: Rodriguez, Leticia

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-12045-1

Laboratory Sample Delivery Group: 32.525555, -103.1425  
Client Project/Site: Warren Unit 204

**For:**

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:  
3/7/2022 9:37:17 PM

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

#### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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: Warren Unit 204

Laboratory Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## Qualifiers

## GC VOA

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.

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

Case Narrative

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Job ID: 880-12045-1

Laboratory: Eurofins Midland

Narrative	Job Narrative 880-12045-1
-----------	------------------------------

Receipt

The samples were received on 3/4/2022 9:57 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.1°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-20897 and analytical batch 880-20859 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.

GC Semi VOA

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

HPLC/IC

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

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS01

Lab Sample ID: 880-12045-1

Date Collected: 03/03/22 12:21

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F2 F1	0.00199	mg/Kg		03/04/22 12:13	03/06/22 12:43	1
Toluene	<0.00199	U F2 F1	0.00199	mg/Kg		03/04/22 12:13	03/06/22 12:43	1
Ethylbenzene	<0.00199	U F2 F1	0.00199	mg/Kg		03/04/22 12:13	03/06/22 12:43	1
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.00398	mg/Kg		03/04/22 12:13	03/06/22 12:43	1
o-Xylene	<0.00199	U F2 F1	0.00199	mg/Kg		03/04/22 12:13	03/06/22 12:43	1
Xylenes, Total	<0.00398	U F2 F1	0.00398	mg/Kg		03/04/22 12:13	03/06/22 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	03/04/22 12:13	03/06/22 12:43	1
1,4-Difluorobenzene (Surr)	96		70 - 130	03/04/22 12:13	03/06/22 12:43	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 13:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 13:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 13:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	03/04/22 11:31	03/05/22 13:19	1
o-Terphenyl	115		70 - 130	03/04/22 11:31	03/05/22 13:19	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.73		4.99	mg/Kg			03/04/22 16:11	1

Client Sample ID: FS02

Lab Sample ID: 880-12045-2

Date Collected: 03/03/22 12:24

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 13:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 13:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 13:03	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/04/22 12:13	03/06/22 13:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 13:03	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/04/22 12:13	03/06/22 13:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/04/22 12:13	03/06/22 13:03	1

Eurofins Midland



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS02

Lab Sample ID: 880-12045-2

Date Collected: 03/03/22 12:24

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	03/04/22 12:13	03/06/22 13:03	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 14:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 14:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			03/04/22 11:31	03/05/22 14:22	1
o-Terphenyl	93		70 - 130			03/04/22 11:31	03/05/22 14:22	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.68		5.00	mg/Kg			03/04/22 16:38	1

Client Sample ID: FS03

Lab Sample ID: 880-12045-3

Date Collected: 03/03/22 12:30

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 13:24	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 13:24	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 13:24	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/04/22 12:13	03/06/22 13:24	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 13:24	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/04/22 12:13	03/06/22 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	03/04/22 12:13	03/06/22 13:24	1
1,4-Difluorobenzene (Surr)	104		70 - 130	03/04/22 12:13	03/06/22 13:24	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			03/06/22 20:53	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			03/06/22 20:29	1

Eurofins Midland

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## Client Sample ID: FS03

## Lab Sample ID: 880-12045-3

Date Collected: 03/03/22 12:30

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

## 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		03/04/22 11:31	03/05/22 14:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/04/22 11:31	03/05/22 14:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/04/22 11:31	03/05/22 14:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			03/04/22 11:31	03/05/22 14:43	1
o-Terphenyl	93		70 - 130			03/04/22 11:31	03/05/22 14:43	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.40		4.96	mg/Kg			03/04/22 16:47	1

## Client Sample ID: FS04

## Lab Sample ID: 880-12045-4

Date Collected: 03/03/22 12:33

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 13:44	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 13:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 13:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/04/22 12:13	03/06/22 13:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 13:44	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/04/22 12:13	03/06/22 13:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			03/04/22 12:13	03/06/22 13:44	1
1,4-Difluorobenzene (Surr)	104		70 - 130			03/04/22 12:13	03/06/22 13:44	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 15:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/04/22 11:31	03/05/22 15:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/04/22 11:31	03/05/22 15:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			03/04/22 11:31	03/05/22 15:04	1
o-Terphenyl	112		70 - 130			03/04/22 11:31	03/05/22 15:04	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS04

Lab Sample ID: 880-12045-4

Date Collected: 03/03/22 12:33

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1.5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.23		4.97	mg/Kg			03/04/22 16:56	1

Client Sample ID: FS05

Lab Sample ID: 880-12045-5

Date Collected: 03/03/22 12:38

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 14:05	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/04/22 12:13	03/06/22 14:05	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/22 12:13	03/06/22 14:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/22 12:13	03/06/22 14:05	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/22 12:13	03/06/22 14:05	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/22 12:13	03/06/22 14:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			03/04/22 12:13	03/06/22 14:05	1
1,4-Difluorobenzene (Surr)	102		70 - 130			03/04/22 12:13	03/06/22 14:05	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 15:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 15:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 15:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			03/04/22 11:31	03/05/22 15:25	1
o-Terphenyl	93		70 - 130			03/04/22 11:31	03/05/22 15:25	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.36		4.95	mg/Kg			03/04/22 17:04	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS06

Lab Sample ID: 880-12045-6

Date Collected: 03/03/22 12:00

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 14:25	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 14:25	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 14:25	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		03/04/22 12:13	03/06/22 14:25	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 14:25	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		03/04/22 12:13	03/06/22 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	03/04/22 12:13	03/06/22 14:25	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/04/22 12:13	03/06/22 14:25	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 15:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 15:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 15:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	03/04/22 11:31	03/05/22 15:45	1
o-Terphenyl	106		70 - 130	03/04/22 11:31	03/05/22 15:45	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97	mg/Kg			03/04/22 17:31	1

Client Sample ID: FS07

Lab Sample ID: 880-12045-7

Date Collected: 03/03/22 13:02

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 14:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 14:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 14:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/22 12:13	03/06/22 14:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 14:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/22 12:13	03/06/22 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	03/04/22 12:13	03/06/22 14:45	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS07

Lab Sample ID: 880-12045-7

Date Collected: 03/03/22 13:02

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130	03/04/22 12:13	03/06/22 14:45	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 16:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 16:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 16:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			03/04/22 11:31	03/05/22 16:06	1
o-Terphenyl	96		70 - 130			03/04/22 11:31	03/05/22 16:06	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.36		4.99	mg/Kg			03/04/22 17:40	1

Client Sample ID: FS08

Lab Sample ID: 880-12045-8

Date Collected: 03/03/22 13:07

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 15:06	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 15:06	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 15:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/04/22 12:13	03/06/22 15:06	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/04/22 12:13	03/06/22 15:06	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/04/22 12:13	03/06/22 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	03/04/22 12:13	03/06/22 15:06	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/04/22 12:13	03/06/22 15:06	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			03/06/22 20:53	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			03/06/22 20:29	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS08

Lab Sample ID: 880-12045-8

Date Collected: 03/03/22 13:07

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 11:31	03/05/22 16:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 16:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 16:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			03/04/22 11:31	03/05/22 16:27	1
o-Terphenyl	98		70 - 130			03/04/22 11:31	03/05/22 16:27	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.3		5.04	mg/Kg			03/04/22 17:49	1

Client Sample ID: FS09

Lab Sample ID: 880-12045-9

Date Collected: 03/03/22 13:12

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 15:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 15:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 15:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/04/22 12:13	03/06/22 15:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 15:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/04/22 12:13	03/06/22 15:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			03/04/22 12:13	03/06/22 15:26	1
1,4-Difluorobenzene (Surr)	98		70 - 130			03/04/22 12:13	03/06/22 15:26	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 16:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 16:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 16:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			03/04/22 11:31	03/05/22 16:49	1
o-Terphenyl	100		70 - 130			03/04/22 11:31	03/05/22 16:49	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## Client Sample ID: FS09

## Lab Sample ID: 880-12045-9

Date Collected: 03/03/22 13:12

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.8		5.00	mg/Kg			03/04/22 17:58	1

## Client Sample ID: FS10

## Lab Sample ID: 880-12045-10

Date Collected: 03/03/22 13:34

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 15:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 15:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 15:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/04/22 12:13	03/06/22 15:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 15:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/04/22 12:13	03/06/22 15:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			03/04/22 12:13	03/06/22 15:46	1
1,4-Difluorobenzene (Surr)	104		70 - 130			03/04/22 12:13	03/06/22 15:46	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 17:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 17:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 17:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			03/04/22 11:31	03/05/22 17:10	1
o-Terphenyl	103		70 - 130			03/04/22 11:31	03/05/22 17:10	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.7		5.00	mg/Kg			03/04/22 18:06	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS11

Lab Sample ID: 880-12045-11

Date Collected: 03/03/22 13:39

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 17:36	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 17:36	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 17:36	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		03/04/22 12:13	03/06/22 17:36	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/22 12:13	03/06/22 17:36	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		03/04/22 12:13	03/06/22 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/04/22 12:13	03/06/22 17:36	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/04/22 12:13	03/06/22 17:36	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 17:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 17:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	03/04/22 11:31	03/05/22 17:51	1
o-Terphenyl	109		70 - 130	03/04/22 11:31	03/05/22 17:51	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		5.05	mg/Kg			03/04/22 18:15	1

Client Sample ID: FS12

Lab Sample ID: 880-12045-12

Date Collected: 03/03/22 14:00

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 17:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 17:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 17:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/04/22 12:13	03/06/22 17:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 17:57	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/04/22 12:13	03/06/22 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/04/22 12:13	03/06/22 17:57	1

Eurofins Midland

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS12

Lab Sample ID: 880-12045-12

Date Collected: 03/03/22 14:00

Matrix: Solid

Date Received: 03/04/22 09:57

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	90		70 - 130	03/04/22 12:13	03/06/22 17:57	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			03/06/22 20:53	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			03/06/22 20:29	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		03/04/22 11:31	03/05/22 18:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/04/22 11:31	03/05/22 18:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/04/22 11:31	03/05/22 18:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			03/04/22 11:31	03/05/22 18:12	1
o-Terphenyl	116		70 - 130			03/04/22 11:31	03/05/22 18:12	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.7		4.95	mg/Kg			03/04/22 18:42	1

Client Sample ID: FS13

Lab Sample ID: 880-12045-13

Date Collected: 03/03/22 14:03

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 12:13	03/06/22 18:17	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/04/22 12:13	03/06/22 18:17	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/22 12:13	03/06/22 18:17	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/22 12:13	03/06/22 18:17	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/22 12:13	03/06/22 18:17	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/22 12:13	03/06/22 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/04/22 12:13	03/06/22 18:17	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/04/22 12:13	03/06/22 18:17	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			03/06/22 20:53	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			03/06/22 20:29	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS13

Lab Sample ID: 880-12045-13

Date Collected: 03/03/22 14:03

Matrix: Solid

Date Received: 03/04/22 09:57

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		03/04/22 11:31	03/05/22 18:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 18:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 18:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			03/04/22 11:31	03/05/22 18:33	1
o-Terphenyl	107		70 - 130			03/04/22 11:31	03/05/22 18:33	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.5		5.00	mg/Kg			03/04/22 18:51	1

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## 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)
880-12045-1	FS01	112	96
880-12045-1 MS	FS01	109	100
880-12045-1 MSD	FS01	102	91
880-12045-2	FS02	107	104
880-12045-3	FS03	112	104
880-12045-4	FS04	110	104
880-12045-5	FS05	103	102
880-12045-6	FS06	81	108
880-12045-7	FS07	100	102
880-12045-8	FS08	104	100
880-12045-9	FS09	106	98
880-12045-10	FS10	109	104
880-12045-11	FS11	108	102
880-12045-12	FS12	107	90
880-12045-13	FS13	105	98
LCS 880-20897/1-A	Lab Control Sample	98	101
LCSD 880-20897/2-A	Lab Control Sample Dup	93	99
MB 880-20895/5-A	Method Blank	96	99
MB 880-20897/5-A	Method Blank	95	98
<b>Surrogate Legend</b>			
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)
880-12045-1	FS01	114	115
880-12045-1 MS	FS01	120	100
880-12045-1 MSD	FS01	115	100
880-12045-2	FS02	99	93
880-12045-3	FS03	93	93
880-12045-4	FS04	110	112
880-12045-5	FS05	99	93
880-12045-6	FS06	104	106
880-12045-7	FS07	98	96
880-12045-8	FS08	96	98
880-12045-9	FS09	102	100
880-12045-10	FS10	104	103
880-12045-11	FS11	107	109
880-12045-12	FS12	115	116
880-12045-13	FS13	103	107
LCS 880-20883/2-A	Lab Control Sample	114	100
LCSD 880-20883/3-A	Lab Control Sample Dup	105	98
MB 880-20883/1-A	Method Blank	100	110
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			

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Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204  
OTPH = o-Terphenyl

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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

Lab Sample ID: MB 880-20895/5-A

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20895

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:01	03/05/22 23:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:01	03/05/22 23:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:01	03/05/22 23:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/22 12:01	03/05/22 23:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:01	03/05/22 23:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/22 12:01	03/05/22 23:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	03/04/22 12:01	03/05/22 23:43	1
1,4-Difluorobenzene (Surr)	99		70 - 130	03/04/22 12:01	03/05/22 23:43	1

Lab Sample ID: MB 880-20897/5-A

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20897

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 12:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 12:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 12:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/22 12:13	03/06/22 12:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/22 12:13	03/06/22 12:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/22 12:13	03/06/22 12:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	03/04/22 12:13	03/06/22 12:14	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/04/22 12:13	03/06/22 12:14	1

Lab Sample ID: LCS 880-20897/1-A

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09933		mg/Kg		99	70 - 130
Toluene	0.100	0.09243		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09086		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.2096		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1047		mg/Kg		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-20897/2-A

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09635		mg/Kg		96	70 - 130	3	35

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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

Lab Sample ID: LCSD 880-20897/2-A

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.08993		mg/Kg		90	70 - 130	3	35
Ethylbenzene	0.100	0.08884		mg/Kg		89	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2060		mg/Kg		103	70 - 130	2	35
o-Xylene	0.100	0.1022		mg/Kg		102	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-12045-1 MS

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 20897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F2 F1	0.100	0.08109		mg/Kg		81	70 - 130
Toluene	<0.00199	U F2 F1	0.100	0.07895		mg/Kg		78	70 - 130
Ethylbenzene	<0.00199	U F2 F1	0.100	0.07751		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1812		mg/Kg		90	70 - 130
o-Xylene	<0.00199	U F2 F1	0.100	0.09085		mg/Kg		91	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-12045-1 MSD

Matrix: Solid

Analysis Batch: 20859

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 20897

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.0990	0.04204	F2 F1	mg/Kg		42	70 - 130	63	35
Toluene	<0.00199	U F2 F1	0.0990	0.04813	F2 F1	mg/Kg		48	70 - 130	48	35
Ethylbenzene	<0.00199	U F2 F1	0.0990	0.05190	F2 F1	mg/Kg		52	70 - 130	40	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.198	0.1189	F2 F1	mg/Kg		60	70 - 130	41	35
o-Xylene	<0.00199	U F2 F1	0.0990	0.06181	F2 F1	mg/Kg		62	70 - 130	38	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

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

Lab Sample ID: MB 880-20883/1-A

Matrix: Solid

Analysis Batch: 20957

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20883

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		03/04/22 11:31	03/05/22 12:16	1

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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

Lab Sample ID: MB 880-20883/1-A

Matrix: Solid

Analysis Batch: 20957

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20883

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		03/04/22 11:31	03/05/22 12:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 11:31	03/05/22 12:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			03/04/22 11:31	03/05/22 12:16	1
o-Terphenyl	110		70 - 130			03/04/22 11:31	03/05/22 12:16	1

Lab Sample ID: LCS 880-20883/2-A

Matrix: Solid

Analysis Batch: 20957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	919.2		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	919.8		mg/Kg		92	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	114		70 - 130				
o-Terphenyl	100		70 - 130				

Lab Sample ID: LCSD 880-20883/3-A

Matrix: Solid

Analysis Batch: 20957

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20883

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	861.0		mg/Kg		86	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	899.9		mg/Kg		90	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	105		70 - 130						
o-Terphenyl	98		70 - 130						

Lab Sample ID: 880-12045-1 MS

Matrix: Solid

Analysis Batch: 20957

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 20883

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	1029		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1003		mg/Kg		98	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	120		70 - 130						
o-Terphenyl	100		70 - 130						

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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

Lab Sample ID: 880-12045-1 MSD

Matrix: Solid

Analysis Batch: 20957

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 20883

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	998.5		mg/Kg		100	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	997.5		mg/Kg		97	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	115		70 - 130								
o-Terphenyl	100		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20870/1-A

Matrix: Solid

Analysis Batch: 20923

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			03/04/22 15:45	1

Lab Sample ID: LCS 880-20870/2-A

Matrix: Solid

Analysis Batch: 20923

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	253.0		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-20870/3-A

Matrix: Solid

Analysis Batch: 20923

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	253.0		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-12045-1 MS

Matrix: Solid

Analysis Batch: 20923

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.73		250	263.5		mg/Kg		103	90 - 110

Lab Sample ID: 880-12045-1 MSD

Matrix: Solid

Analysis Batch: 20923

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.73		250	255.7		mg/Kg		100	90 - 110	3	20

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QC Sample Results

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-12045-11 MS										Client Sample ID: FS11		
Matrix: Solid										Prep Type: Soluble		
Analysis Batch: 20923												
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chloride	12.1		253	265.5		mg/Kg		100	90 - 110			

Lab Sample ID: 880-12045-11 MSD										Client Sample ID: FS11		
Matrix: Solid										Prep Type: Soluble		
Analysis Batch: 20923												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	12.1		253	263.1		mg/Kg		99	90 - 110	1	20	

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## GC VOA

## Analysis Batch: 20859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Total/NA	Solid	8021B	20897
880-12045-2	FS02	Total/NA	Solid	8021B	20897
880-12045-3	FS03	Total/NA	Solid	8021B	20897
880-12045-4	FS04	Total/NA	Solid	8021B	20897
880-12045-5	FS05	Total/NA	Solid	8021B	20897
880-12045-6	FS06	Total/NA	Solid	8021B	20897
880-12045-7	FS07	Total/NA	Solid	8021B	20897
880-12045-8	FS08	Total/NA	Solid	8021B	20897
880-12045-9	FS09	Total/NA	Solid	8021B	20897
880-12045-10	FS10	Total/NA	Solid	8021B	20897
880-12045-11	FS11	Total/NA	Solid	8021B	20897
880-12045-12	FS12	Total/NA	Solid	8021B	20897
880-12045-13	FS13	Total/NA	Solid	8021B	20897
MB 880-20895/5-A	Method Blank	Total/NA	Solid	8021B	20895
MB 880-20897/5-A	Method Blank	Total/NA	Solid	8021B	20897
LCS 880-20897/1-A	Lab Control Sample	Total/NA	Solid	8021B	20897
LCSD 880-20897/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20897
880-12045-1 MS	FS01	Total/NA	Solid	8021B	20897
880-12045-1 MSD	FS01	Total/NA	Solid	8021B	20897

## Prep Batch: 20895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20895/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 20897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Total/NA	Solid	5035	
880-12045-2	FS02	Total/NA	Solid	5035	
880-12045-3	FS03	Total/NA	Solid	5035	
880-12045-4	FS04	Total/NA	Solid	5035	
880-12045-5	FS05	Total/NA	Solid	5035	
880-12045-6	FS06	Total/NA	Solid	5035	
880-12045-7	FS07	Total/NA	Solid	5035	
880-12045-8	FS08	Total/NA	Solid	5035	
880-12045-9	FS09	Total/NA	Solid	5035	
880-12045-10	FS10	Total/NA	Solid	5035	
880-12045-11	FS11	Total/NA	Solid	5035	
880-12045-12	FS12	Total/NA	Solid	5035	
880-12045-13	FS13	Total/NA	Solid	5035	
MB 880-20897/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20897/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20897/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12045-1 MS	FS01	Total/NA	Solid	5035	
880-12045-1 MSD	FS01	Total/NA	Solid	5035	

## Analysis Batch: 20992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Total/NA	Solid	Total BTEX	
880-12045-2	FS02	Total/NA	Solid	Total BTEX	
880-12045-3	FS03	Total/NA	Solid	Total BTEX	
880-12045-4	FS04	Total/NA	Solid	Total BTEX	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## GC VOA (Continued)

## Analysis Batch: 20992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-5	FS05	Total/NA	Solid	Total BTEX	
880-12045-6	FS06	Total/NA	Solid	Total BTEX	
880-12045-7	FS07	Total/NA	Solid	Total BTEX	
880-12045-8	FS08	Total/NA	Solid	Total BTEX	
880-12045-9	FS09	Total/NA	Solid	Total BTEX	
880-12045-10	FS10	Total/NA	Solid	Total BTEX	
880-12045-11	FS11	Total/NA	Solid	Total BTEX	
880-12045-12	FS12	Total/NA	Solid	Total BTEX	
880-12045-13	FS13	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 20883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Total/NA	Solid	8015NM Prep	
880-12045-2	FS02	Total/NA	Solid	8015NM Prep	
880-12045-3	FS03	Total/NA	Solid	8015NM Prep	
880-12045-4	FS04	Total/NA	Solid	8015NM Prep	
880-12045-5	FS05	Total/NA	Solid	8015NM Prep	
880-12045-6	FS06	Total/NA	Solid	8015NM Prep	
880-12045-7	FS07	Total/NA	Solid	8015NM Prep	
880-12045-8	FS08	Total/NA	Solid	8015NM Prep	
880-12045-9	FS09	Total/NA	Solid	8015NM Prep	
880-12045-10	FS10	Total/NA	Solid	8015NM Prep	
880-12045-11	FS11	Total/NA	Solid	8015NM Prep	
880-12045-12	FS12	Total/NA	Solid	8015NM Prep	
880-12045-13	FS13	Total/NA	Solid	8015NM Prep	
MB 880-20883/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20883/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20883/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12045-1 MS	FS01	Total/NA	Solid	8015NM Prep	
880-12045-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 20957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Total/NA	Solid	8015B NM	20883
880-12045-2	FS02	Total/NA	Solid	8015B NM	20883
880-12045-3	FS03	Total/NA	Solid	8015B NM	20883
880-12045-4	FS04	Total/NA	Solid	8015B NM	20883
880-12045-5	FS05	Total/NA	Solid	8015B NM	20883
880-12045-6	FS06	Total/NA	Solid	8015B NM	20883
880-12045-7	FS07	Total/NA	Solid	8015B NM	20883
880-12045-8	FS08	Total/NA	Solid	8015B NM	20883
880-12045-9	FS09	Total/NA	Solid	8015B NM	20883
880-12045-10	FS10	Total/NA	Solid	8015B NM	20883
880-12045-11	FS11	Total/NA	Solid	8015B NM	20883
880-12045-12	FS12	Total/NA	Solid	8015B NM	20883
880-12045-13	FS13	Total/NA	Solid	8015B NM	20883
MB 880-20883/1-A	Method Blank	Total/NA	Solid	8015B NM	20883
LCS 880-20883/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20883
LCSD 880-20883/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20883

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## GC Semi VOA (Continued)

## Analysis Batch: 20957 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1 MS	FS01	Total/NA	Solid	8015B NM	20883
880-12045-1 MSD	FS01	Total/NA	Solid	8015B NM	20883

## Analysis Batch: 20978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Total/NA	Solid	8015 NM	
880-12045-2	FS02	Total/NA	Solid	8015 NM	
880-12045-3	FS03	Total/NA	Solid	8015 NM	
880-12045-4	FS04	Total/NA	Solid	8015 NM	
880-12045-5	FS05	Total/NA	Solid	8015 NM	
880-12045-6	FS06	Total/NA	Solid	8015 NM	
880-12045-7	FS07	Total/NA	Solid	8015 NM	
880-12045-8	FS08	Total/NA	Solid	8015 NM	
880-12045-9	FS09	Total/NA	Solid	8015 NM	
880-12045-10	FS10	Total/NA	Solid	8015 NM	
880-12045-11	FS11	Total/NA	Solid	8015 NM	
880-12045-12	FS12	Total/NA	Solid	8015 NM	
880-12045-13	FS13	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 20870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Soluble	Solid	DI Leach	
880-12045-2	FS02	Soluble	Solid	DI Leach	
880-12045-3	FS03	Soluble	Solid	DI Leach	
880-12045-4	FS04	Soluble	Solid	DI Leach	
880-12045-5	FS05	Soluble	Solid	DI Leach	
880-12045-6	FS06	Soluble	Solid	DI Leach	
880-12045-7	FS07	Soluble	Solid	DI Leach	
880-12045-8	FS08	Soluble	Solid	DI Leach	
880-12045-9	FS09	Soluble	Solid	DI Leach	
880-12045-10	FS10	Soluble	Solid	DI Leach	
880-12045-11	FS11	Soluble	Solid	DI Leach	
880-12045-12	FS12	Soluble	Solid	DI Leach	
880-12045-13	FS13	Soluble	Solid	DI Leach	
MB 880-20870/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20870/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20870/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12045-1 MS	FS01	Soluble	Solid	DI Leach	
880-12045-1 MSD	FS01	Soluble	Solid	DI Leach	
880-12045-11 MS	FS11	Soluble	Solid	DI Leach	
880-12045-11 MSD	FS11	Soluble	Solid	DI Leach	

## Analysis Batch: 20923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-1	FS01	Soluble	Solid	300.0	20870
880-12045-2	FS02	Soluble	Solid	300.0	20870
880-12045-3	FS03	Soluble	Solid	300.0	20870
880-12045-4	FS04	Soluble	Solid	300.0	20870
880-12045-5	FS05	Soluble	Solid	300.0	20870

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

## HPLC/IC (Continued)

## Analysis Batch: 20923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12045-6	FS06	Soluble	Solid	300.0	20870
880-12045-7	FS07	Soluble	Solid	300.0	20870
880-12045-8	FS08	Soluble	Solid	300.0	20870
880-12045-9	FS09	Soluble	Solid	300.0	20870
880-12045-10	FS10	Soluble	Solid	300.0	20870
880-12045-11	FS11	Soluble	Solid	300.0	20870
880-12045-12	FS12	Soluble	Solid	300.0	20870
880-12045-13	FS13	Soluble	Solid	300.0	20870
MB 880-20870/1-A	Method Blank	Soluble	Solid	300.0	20870
LCS 880-20870/2-A	Lab Control Sample	Soluble	Solid	300.0	20870
LCSD 880-20870/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20870
880-12045-1 MS	FS01	Soluble	Solid	300.0	20870
880-12045-1 MSD	FS01	Soluble	Solid	300.0	20870
880-12045-11 MS	FS11	Soluble	Solid	300.0	20870
880-12045-11 MSD	FS11	Soluble	Solid	300.0	20870

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS01

Lab Sample ID: 880-12045-1

Date Collected: 03/03/22 12:21

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 12:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 13:19	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 16:11	SC	XEN MID

Client Sample ID: FS02

Lab Sample ID: 880-12045-2

Date Collected: 03/03/22 12:24

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 13:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 14:22	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 16:38	SC	XEN MID

Client Sample ID: FS03

Lab Sample ID: 880-12045-3

Date Collected: 03/03/22 12:30

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 13:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 14:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 16:47	SC	XEN MID

Client Sample ID: FS04

Lab Sample ID: 880-12045-4

Date Collected: 03/03/22 12:33

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 13:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS04

Lab Sample ID: 880-12045-4

Date Collected: 03/03/22 12:33

Matrix: Solid

Date Received: 03/04/22 09:57

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			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 15:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 16:56	SC	XEN MID

Client Sample ID: FS05

Lab Sample ID: 880-12045-5

Date Collected: 03/03/22 12:38

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 14:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 15:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 17:04	SC	XEN MID

Client Sample ID: FS06

Lab Sample ID: 880-12045-6

Date Collected: 03/03/22 12:00

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 14:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 15:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 17:31	SC	XEN MID

Client Sample ID: FS07

Lab Sample ID: 880-12045-7

Date Collected: 03/03/22 13:02

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 14:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 16:06	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS07

Lab Sample ID: 880-12045-7

Date Collected: 03/03/22 13:02

Matrix: Solid

Date Received: 03/04/22 09:57

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	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 17:40	SC	XEN MID

Client Sample ID: FS08

Lab Sample ID: 880-12045-8

Date Collected: 03/03/22 13:07

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 15:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 16:27	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 17:49	SC	XEN MID

Client Sample ID: FS09

Lab Sample ID: 880-12045-9

Date Collected: 03/03/22 13:12

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 15:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 16:49	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 17:58	SC	XEN MID

Client Sample ID: FS10

Lab Sample ID: 880-12045-10

Date Collected: 03/03/22 13:34

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 15:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 17:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 18:06	SC	XEN MID

Eurofins Midland

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Client Sample ID: FS11

Lab Sample ID: 880-12045-11

Date Collected: 03/03/22 13:39

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 17:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 17:51	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 18:15	SC	XEN MID

Client Sample ID: FS12

Lab Sample ID: 880-12045-12

Date Collected: 03/03/22 14:00

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 17:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 18:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 18:42	SC	XEN MID

Client Sample ID: FS13

Lab Sample ID: 880-12045-13

Date Collected: 03/03/22 14:03

Matrix: Solid

Date Received: 03/04/22 09:57

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	20897	03/04/22 12:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20859	03/06/22 18:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20992	03/06/22 20:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20978	03/06/22 20:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20883	03/04/22 11:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20957	03/05/22 18:33	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20870	03/04/22 10:15	CH	XEN MID
Soluble	Analysis	300.0		1			20923	03/04/22 18:51	SC	XEN MID

## Laboratory References:

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

Eurofins Midland



Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14

## Method Summary

Client: WSP USA Inc.  
Project/Site: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

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: Warren Unit 204

Job ID: 880-12045-1  
SDG: 32.525555, -103.1425

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-12045-1	FS01	Solid	03/03/22 12:21	03/04/22 09:57	1.5
880-12045-2	FS02	Solid	03/03/22 12:24	03/04/22 09:57	1.5
880-12045-3	FS03	Solid	03/03/22 12:30	03/04/22 09:57	1.5
880-12045-4	FS04	Solid	03/03/22 12:33	03/04/22 09:57	1.5
880-12045-5	FS05	Solid	03/03/22 12:38	03/04/22 09:57	1
880-12045-6	FS06	Solid	03/03/22 12:00	03/04/22 09:57	1
880-12045-7	FS07	Solid	03/03/22 13:02	03/04/22 09:57	1
880-12045-8	FS08	Solid	03/03/22 13:07	03/04/22 09:57	1
880-12045-9	FS09	Solid	03/03/22 13:12	03/04/22 09:57	1
880-12045-10	FS10	Solid	03/03/22 13:34	03/04/22 09:57	1
880-12045-11	FS11	Solid	03/03/22 13:39	03/04/22 09:57	1
880-12045-12	FS12	Solid	03/03/22 14:00	03/04/22 09:57	1
880-12045-13	FS13	Solid	03/03/22 14:03	03/04/22 09:57	1



## Chain of Custody

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) 794-1236  
 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Phoenix AZ (480) 355-0900  
 Tampa FL (813) 620-2000 Tallahassee FL (904) 756-0747 Delray Beach FL (561) 689-6701  
 Atlanta GA (770) 449-8800

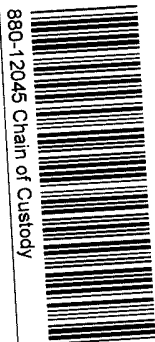
Work Order No: 12015

Project Manager	Kalei Jennings	Bill to (if different)	Kalei Jennings
Company Name	WSP USA INC	Company Name	WSP USA INC
Address	3300 North A St, Bldg L, Unit 772	Address	
City State Zip	Midland, TX 79705	City State Zip	
Phone	817-683-2503	Email	Kalei.Jennings@wsp.com

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<b>Work Order Comments</b> Program: <input type="checkbox"/> UST/PSST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRD <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: <input type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> PST/US <input type="checkbox"/> TRR <input type="checkbox"/> Level IV Reporting Level: <input type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> Level IV Deliverables: <input checked="" type="checkbox"/> FDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other	

Project Name	Warren Unit 204	Turn Around	
Project Number	31403710.000 TASK 23.02	Rush	<input checked="" type="checkbox"/>
Project Location	32.525555, -103.1425	Due Date	24 Apr
Sampler's Name	Hadi Green	Due Date	
PO #			
<b>SAMPLE RECEIPT</b> Temp Blank Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wet Ice Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Temperature (°C) 52.5.1 Thermometer ID TPE Received Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Coroder Custody Seals Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Correction Factor -.1 Sample Custody Seals Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Total Containers			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Preservative Codes	Sample Comments
FS01	SL	3-3-22	12:21	1.5	X BTEX (EPA 0-8021)	HNO3 HN	402
FS02			12:24	1.5	X TPH (EPA 8015)	H2SO4 H2	
FS03			12:30	1.5	X CHLORIDES (EPA 300)	HCL HL	
FS04			12:33	1.5		None NO	
FS05			12:36	1		NaOH Na	
FS06			12:00	1		MeOH Me	
FS07			13:02	1		Zn Acetate+ NaOH Zn	
FS08			13:07	1			
FS09			13:12	1			
FS10			13:34	1			



880-12045 Chain of Custody

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti 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 Ti U	1631 / 245.1 / 7470 / 7471 Hg

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
Hadi Green	Hadi Green	3/4/22			
		9:57			



**Chain of Custody**

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 Carlsbad NM (575) 988-3199 Phoenix AZ (480) 355-0900  
Tampa FL (813) 620-2000 Tallahassee FL (850) 756-0747 Delray Beach FL (561) 689-6701  
Atlanta GA (770) 449-8800

Work Order No: 12045

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Project Manager	Kalei Jennings	Bill to (if different)	Kalei Jennings
Company Name	WSP USA Inc	Company Name	WSP USA Inc
Address	3300 North Ast. Bldg 1, Unit 222	Address	
City State ZIP	Midland, TX 79705	City State ZIP	
Phone	817-683-2503	Email	Kalei.Jennings@wsp.com

<b>Work Order Comments</b>	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project	
Reporting Level: <input checked="" type="checkbox"/> Level I <input type="checkbox"/> PST/US <input type="checkbox"/> TRR <input type="checkbox"/> Level II	
Deliverables EDD <input checked="" type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name	Warren Unit 204	Turn Around	
Project Number	3103720.000 TASK 23.02	Routine <input type="checkbox"/>	
Project Location	32.52555, -103.1425	Rush <input checked="" type="checkbox"/>	
Sampler's Name	Hadii Green	Due Date	
PO #			
<b>SAMPLE RECEIPT</b>			
Temperature (°C)	52.5	Temp Blank. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Received Inact:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Thermometer ID	TPB
Cooler Custody Seals	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor	-1
Sample Custody Seals	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Containers.	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	ANALYSIS REQUEST	Preservative Codes
ES11	SL	3-3-22	13:39	1	1		HNO3 HN
ES12	SL	3-3-22	14:00	1	1		H2SO4 H2
ES13	SL	3-3-22	14:03	1	1		HCL HL
							None NO
							NaOH Na
							MeOH Me
							Zn Acetate+ NaOH Zn
							TAT starts the day received by the lab if received by 4:30pm
							Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti 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 Ti 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
<i>Hadii Green</i>	<i>Hadii Green</i>	3/4/22			
		9:57			

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 880-12045-1

SDG Number: 32.525555, -103.1425

Login Number: 12045

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

ATTACHMENT 4: 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	
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)


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

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> 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*

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name _____	Title: _____
Signature: <u></u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>12/20/2021</u>

Facility Name &amp; Number: Warrne Unit 204 Flow line

Asset Area: HPA01

NAPP2135033062

Release Discovery Date &amp; Time: 11/3/2021 09:17AM

Release Type: Oil Mixture

Provide any known details about the event: Got a call from rancher about liquid flowing down lease road went to investigate and found small amount of standing liquid near hole in line and partially down the road

## Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?

See reference table below

Has it rained at least a half inch in the last 24 hours?

See reference table below

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	22.0	12.0	3.50	15.50%	13.706	2.124	8.00%	0.170	1.954
Rectangle B	20.0	1.0	1.00	10.50%	0.297	0.031	8.00%	0.002	0.029
Rectangle C	88.0	19.0	1.00	10.50%	24.801	2.604	8.00%	0.208	2.396
Rectangle D	13.0	13.0	1.00	10.50%	2.507	0.263	8.00%	0.021	0.242
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Released to Imaging: 4/26/2022 4:01:03 PM					0.000	0.000		0.000	0.000
Total Volume Release:						5.023		0.402	4.621

Incident ID	NAPP2135033062
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>50-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

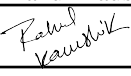
- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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

State of New Mexico  
Oil Conservation Division

Incident ID	NAPP2135033062
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: Rahul Kaushik Title: Field Environmental Coordinator, Lower 48  
Signature:  Date: 03/22/2022  
email: Rahul.Kaushik@conocophillips.com Telephone: (432) 238-3781

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NAPP2135033062
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 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 OCD 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 of 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: Rahul Kaushik

Title: Field Environmental Coordinator, Lower 48

Signature: 

Date: 03/22/2022

Email: Rahul.Kaushik@conocophillips.com

Telephone: (432) 238-3781

**ODC Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

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

Closure Approved by: 

Date: 04/26/2022

Printed Name: Jennifer Nobui

Title: Environmental Specialist A

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS  
  
Action 92215

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 92215
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	4/26/2022