



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

February 8, 2022

District I
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88210

**RE: Closure Request
Pintail 3 001
Incident Number NAPP2127934644
Lea County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of COG Operating, LLC. (COG), presents the following Closure Request detailing site assessment and soil sampling activities at the Pintail 3 001 (Site) in Unit O, Section 3, Township 26 South, Range 32 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil and produced water within lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, COG is submitting this Closure Request, describing site assessment and delineation activities that have occurred and requesting no further action for Incident Number NAPP2127934644.

RELEASE BACKGROUND

On June 30, 2021, a ruptured pipeline resulted in the release of approximately 10 barrels (bbls) of crude oil and 30 bbls of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; all 40 bbls of the released fluids were recovered from within the lined containment. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 on October 7, 2021. The release was assigned Incident Number NAPP2127934644. A 48-hour advance notice of liner inspection was provided via email on October 14, 2021 to the NMOCD District I office. A liner integrity inspection was conducted by WSP personnel on October 18, 2021 following the fluid recovery, and upon inspection the liner was determined to be insufficient.

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 greater than 100 feet below ground surface (bgs)



based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320424103415401, located approximately 2.2 miles northwest of the Site. The groundwater well has a reported depth to groundwater of 290 feet bgs and a total depth of 640 feet bgs. Ground surface elevation at the groundwater well location is 3,303 feet amsl, which is approximately 13 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1 and referenced well records are provided in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is a stream, located approximately 0.45 miles east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

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: 20,000 mg/kg

SITE ASSESSMENT ACTIVITIES

On January 25, 2022, WSP personnel visited the Site to evaluate the release extent and conduct site assessment activities. WSP personnel advanced one core hole (CH01) via core drill directly below the location of the tear in the liner identified during the liner integrity inspection. Four soil samples were collected from the core hole (CH01) at depths of 1-foot, 3 feet, 3.5 feet, and 4 feet bgs to assess for the presence or absence of impacted soil. Five additional assessment samples (SS01 through SS05) were collected from a depth of 0.5 feet bgs around the lined containment to confirm the lateral extent of the release. Soil from the core hole and surface assessment samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the core hole were documented on a lithologic/soil sampling log, which is included as Attachment 2. The core hole was backfilled with the soil

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removed and COG repaired the tear in the liner. The core hole and surface sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 3.

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

SOIL ANALYTICAL RESULTS

Laboratory analytical results for core hole soil samples CH01 through CH01C indicated that benzene, BTEX, TPH-DRO/TPH-GRO, TPH, and chloride concentrations were compliant with the Closure Criteria. In addition, surface assessment samples SS01 through SS05 were 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 4.

CLOSURE REQUEST

Following the failed liner integrity inspection at the Site, WSP personnel advanced one core-hole, (CH01), within the lined containment to assess for the presence or absence of soil impacts resulting from the June 30, 2021 produced water and crude oil release within lined containment. Four delineation soil samples were collected from core hole CH01, at depths of 1-foot, 3 feet, 3.5 feet, and 4 feet bgs. Laboratory analytical results for the core hole delineation samples indicated that benzene, BTEX, TPH-DRO/TPH-GRO, TPH and chloride concentrations were compliant with the Closure Criteria. In addition, delineation sample CH01C collected at 4 feet bgs and surface assessment samples SS01 through SS05 were compliant with the most stringent Table 1 Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response activities. The tear in the liner was subsequently repaired.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria directly beneath the tear in the liner, COG respectfully requests NFA for Incident Number NAPP2127934644. The final Form C-141 is included in Attachment 5.

If you have any questions or comments, please do not hesitate to contact Ms. Aimee Cole at (720) 384-7365.

Sincerely,



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WSP USA Inc.

A handwritten signature in black ink that reads 'Kalei Jennings'. The signature is written in a cursive, flowing style.

Kalei Jennings
Consultant, Environmental Scientist

A handwritten signature in black ink that reads 'Aimee Cole'. The signature is written in a cursive, flowing style.

Aimee Cole
Sr. Consultant, Environmental Scientist

cc: Kelsey Waggaman, COG
Bureau of Land Management

Attachments:

Figure 1 Site Location Map
Figure 2 Delineation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Well Record and Log
Attachment 2 Lithologic/Sampling Log
Attachment 3 Photographic Log
Attachment 4 Laboratory Analytical Reports
Attachment 5 Final C-141

FIGURES

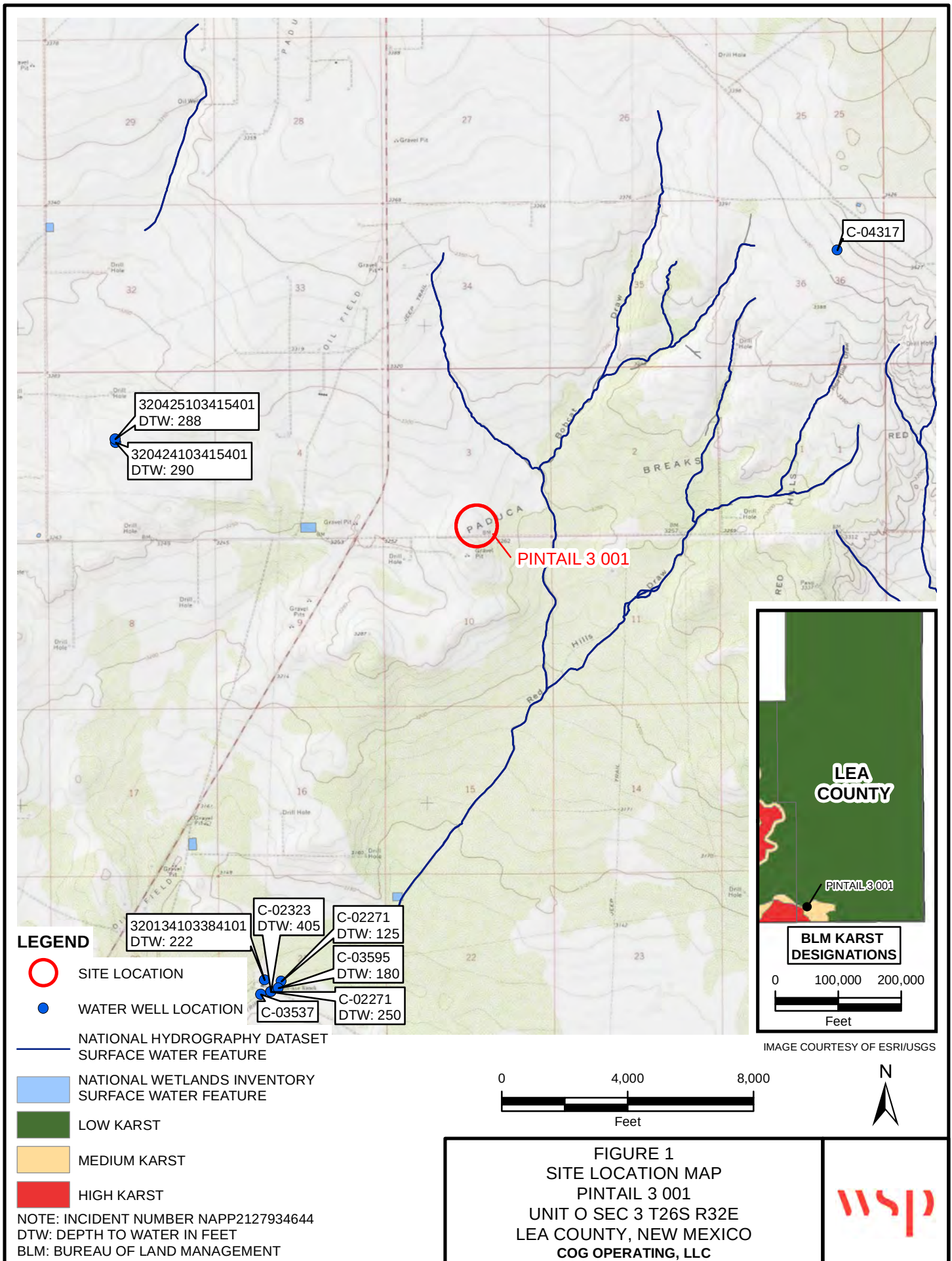
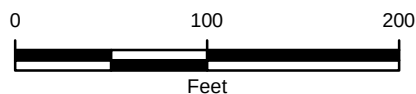




IMAGE COURTESY OF ESRI

LEGEND

-  SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
-  CONTAINMENT



NOTE: INCIDENT NUMBER NAPP2127934644
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
PINTAIL 3 001
UNIT O SEC 3 T26S R32E
LEA COUNTY, NEW MEXICO
COG OPERATING, LLC



TABLES

Table 1
Soil Analytical Results
Pintail 3 001
Incident Number NAPP2127934644
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)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	01/23/2022	0.5	<0.00200	<0.00399	75.5	<49.9	<49.9	75.5	75.5	175
SS02	01/23/2022	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	435
SS03	01/23/2022	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<50.0	283
SS04	01/23/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	27.7
SS05	01/23/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	23.3
CH01	01/25/2022	1	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	234
CH01A	01/25/2022	3	<0.00202	<0.00403	<49.9	<50.0	<50.0	<50.0	<50.0	1,220
CH01B	01/25/2022	3.5	<0.00199	<0.00398	<49.9	<50.0	<50.0	<50.0	<50.0	1,170
CH01C	01/25/2022	4	<0.00200	<0.00400	<49.9	<50.0	<50.0	<50.0	<50.0	126

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 - oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - 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

ATTACHMENT 1: REFERENCED WELL RECORD



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- [Full News](#) 

USGS 320424103415401 26S.31E.01.421322

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°04'24", Longitude 103°41'54" NAD27
Eddy County, New Mexico , Hydrologic Unit 13070001
Well depth: not determined.
Land surface altitude: 3,294 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Santa Rosa Sandstone" (231SNRS) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-01-26	1987-10-21	3
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

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Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

site_no list =

- 321917103303001

Minimum number of levels = 1

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

USGS 321917103303001 23S.34E.06.43314

Available data for this site Groundwater: Field measurements

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°19'17", Longitude 103°30'30" NAD27

Land-surface elevation 3,480 feet above NAVD88

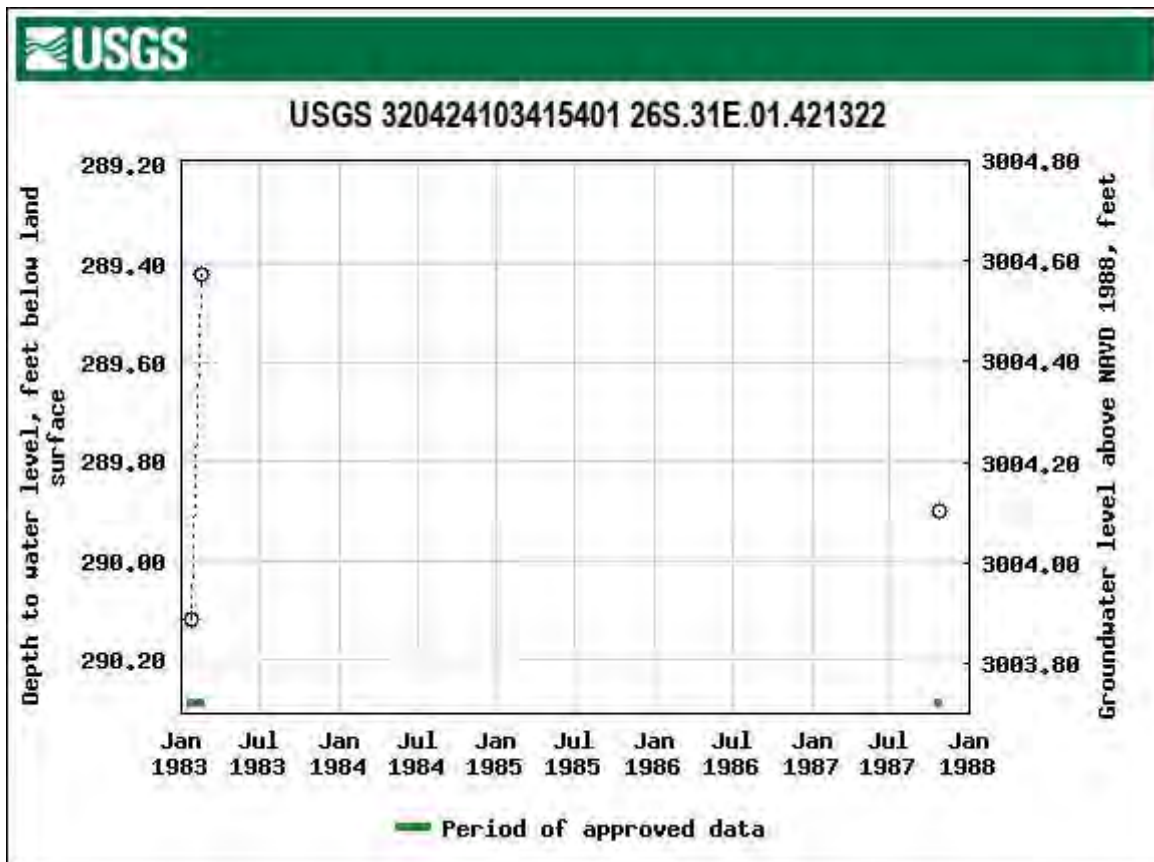
The depth of the well is 640 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

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



 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name: CH01		
						Site Name: Pintail 3 001		
						RP or Incident Number: NAPP2127934644		
						WSP Job Number: 31402909.230		
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: BB, AC		Method: Coredrill
Lat/Long: 32.065991, -103.661821			Field Screening:			Hole Diameter:		Total Depth: 4 ft' bgs
Comments: M-moist; D-dry; Y-yes; N-no; SAA- same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, MOIST, TAN-LIGHT BROWN, UNCONSOLIDATED-FILL, SOME SUB-ANGULAR/ANGULAR GRAVEL, SOME FINE GRAIN LIGHT BROWN SAND, NO STAIN, NO ODOR
M	235.2	2.1		CH01	1	1	SP/CCHE	SAND, WITH CALICHE, MOIST, BROWN, POORLY GRADED FINE-TO VERY FINE GRAIN, SOME SMALL-LARGE SUB ROUND TO ANGULAR CALICHE GRAVEL NO STAIN NO ODOR
						2	CCHE	CALICHE, MOIST, TAN, POORLY TO MODERATELY CONSOLIDATED, SOME LARGE SUB-ROUNDED GRAVEL VERY SILTY, NO STAIN, NO ODOR
M	1,439.2	0.0		CH01A	3	3	CCHE	SAA
M	1,439.2	0.0		CH01B	3.5		CCHE	SAA
M	162.4	0.0		CH01C	4	4	CCHE	SAA
								TD @ 4 FT BGS

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

COG Operating, LLC	Pintail 3 001 Lea County, New Mexico	NAPP2127934644
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Photo No.	Date	
1	January 25, 2022	
Northeast view of core drill delineation activities.		 A photograph showing a northeast view of core drill delineation activities. In the foreground, there is a large, dark, cylindrical object, possibly a core drill component, lying on a flat, dark surface. A white bucket and some tools are visible nearby. In the background, a large, dark, cylindrical object, possibly a storage tank, is visible. The ground is dry and sandy, and the sky is clear and blue.

Photo No.	Date	
2	January 25, 2022	
Photo taken of the core drill location after delineation activities were completed.		 A close-up photograph of the core drill location after delineation activities were completed. The image shows a dark, textured surface, possibly a core drill component, with some lighter, sandy material visible. A black pipe or hose is visible in the upper left corner. The surface appears to be a mix of dark, possibly metallic or plastic, material and lighter, sandy soil.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1872-1
Laboratory Sample Delivery Group: 31402909.230
Client Project/Site: PINTAIL 3001

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:
2/2/2022 4:02:25 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Laboratory Job ID: 890-1872-1
SDG: 31402909.230

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Eurofins Carlsbad

Case Narrative

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Job ID: 890-1872-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-1872-1****Receipt**

The samples were received on 1/26/2022 9:52 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-17863, 880-17863 and 880-17886 and analytical batch 880-17867 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS03 (890-1872-1), (LCSD 880-17886/2-A), (880-10599-A-4-B MS), (880-10599-A-4-C MSD) and (880-10654-A-21-B MSD). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18029 and analytical batch 880-18094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Client Sample ID: SS03

Lab Sample ID: 890-1872-1

Date Collected: 01/23/22 15:45

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/27/22 08:03	01/27/22 19:10	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/27/22 08:03	01/27/22 19:10	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/27/22 08:03	01/27/22 19:10	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/27/22 08:03	01/27/22 19:10	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/27/22 08:03	01/27/22 19:10	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/27/22 08:03	01/27/22 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130	01/27/22 08:03	01/27/22 19:10	1
1,4-Difluorobenzene (Surr)	124		70 - 130	01/27/22 08:03	01/27/22 19:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 08:21	01/31/22 18:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9	mg/Kg		01/31/22 08:21	01/31/22 18:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 08:21	01/31/22 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130	01/31/22 08:21	01/31/22 18:38	1
o-Terphenyl	77		70 - 130	01/31/22 08:21	01/31/22 18:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	283		4.98	mg/Kg			02/01/22 18:03	1

Client Sample ID: SS04

Lab Sample ID: 890-1872-2

Date Collected: 01/23/22 15:46

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 19:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 19:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 19:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/27/22 08:03	01/27/22 19:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 19:31	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/27/22 08:03	01/27/22 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/27/22 08:03	01/27/22 19:31	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Client Sample ID: SS04

Lab Sample ID: 890-1872-2

Date Collected: 01/23/22 15:46

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	74		70 - 130	01/27/22 08:03	01/27/22 19:31	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 18:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0	mg/Kg		01/31/22 08:21	01/31/22 18:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 18:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130			01/31/22 08:21	01/31/22 18:59	1
o-Terphenyl	69	S1-	70 - 130			01/31/22 08:21	01/31/22 18:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.7		5.00	mg/Kg			02/01/22 18:09	1

Client Sample ID: SS05

Lab Sample ID: 890-1872-3

Date Collected: 01/23/22 15:47

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/28/22 07:30	01/28/22 11:40	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/28/22 07:30	01/28/22 11:40	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/28/22 07:30	01/28/22 11:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/28/22 07:30	01/28/22 11:40	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/28/22 07:30	01/28/22 11:40	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/28/22 07:30	01/28/22 11:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	01/28/22 07:30	01/28/22 11:40	1
1,4-Difluorobenzene (Surr)	102		70 - 130	01/28/22 07:30	01/28/22 11:40	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/31/22 13:14	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Client Sample ID: SS05

Lab Sample ID: 890-1872-3

Date Collected: 01/23/22 15:47

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 08:21	01/31/22 19:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U **	49.9	mg/Kg		01/31/22 08:21	01/31/22 19:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 08:21	01/31/22 19:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130			01/31/22 08:21	01/31/22 19:20	1
o-Terphenyl	72		70 - 130			01/31/22 08:21	01/31/22 19:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.3		4.99	mg/Kg			02/01/22 18:15	1

Client Sample ID: SS01

Lab Sample ID: 890-1872-4

Date Collected: 01/23/22 15:50

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/28/22 07:30	01/28/22 12:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/28/22 07:30	01/28/22 12:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			01/28/22 07:30	01/28/22 12:00	1
1,4-Difluorobenzene (Surr)	98		70 - 130			01/28/22 07:30	01/28/22 12:00	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	75.5		49.9	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 08:21	01/31/22 19:40	1
Diesel Range Organics (Over C10-C28)	75.5	**	49.9	mg/Kg		01/31/22 08:21	01/31/22 19:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 08:21	01/31/22 19:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130			01/31/22 08:21	01/31/22 19:40	1
o-Terphenyl	74		70 - 130			01/31/22 08:21	01/31/22 19:40	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Client Sample ID: SS01

Lab Sample ID: 890-1872-4

Date Collected: 01/23/22 15:50

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	175		4.98	mg/Kg			02/01/22 18:33	1

Client Sample ID: SS02

Lab Sample ID: 890-1872-5

Date Collected: 01/23/22 15:51

Matrix: Solid

Date Received: 01/26/22 09:52

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		01/28/22 07:30	01/28/22 12:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/28/22 07:30	01/28/22 12:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/28/22 07:30	01/28/22 12:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/28/22 07:30	01/28/22 12:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/28/22 07:30	01/28/22 12:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/28/22 07:30	01/28/22 12:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			01/28/22 07:30	01/28/22 12:21	1
1,4-Difluorobenzene (Surr)	100		70 - 130			01/28/22 07:30	01/28/22 12:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 20:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U +	50.0	mg/Kg		01/31/22 08:21	01/31/22 20:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 20:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130			01/31/22 08:21	01/31/22 20:02	1
o-Terphenyl	75		70 - 130			01/31/22 08:21	01/31/22 20:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	435		5.04	mg/Kg			02/01/22 18:40	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

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)
880-10599-A-4-B MS	Matrix Spike	70	57 S1-
880-10599-A-4-C MSD	Matrix Spike Duplicate	162 S1+	91
890-1872-1	SS03	143 S1+	124
890-1872-2	SS04	114	74
890-1872-3	SS05	100	102
890-1872-3 MS	SS05	100	88
890-1872-3 MSD	SS05	100	90
890-1872-4	SS01	117	98
890-1872-5	SS02	111	100
LCS 880-17863/1-A	Lab Control Sample	108	98
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17863/2-A	Lab Control Sample Dup	105	86
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17863/5-A	Method Blank	104	93
MB 880-17922/5-A	Method Blank	111	100
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1869-A-41-G MS	Matrix Spike	69 S1-	66 S1-
890-1869-A-41-H MSD	Matrix Spike Duplicate	67 S1-	62 S1-
890-1872-1	SS03	76	77
890-1872-2	SS04	67 S1-	69 S1-
890-1872-3	SS05	69 S1-	72
890-1872-4	SS01	70	74
890-1872-5	SS02	75	75
LCS 880-18103/2-A	Lab Control Sample	81	76
LCSD 880-18103/3-A	Lab Control Sample Dup	82	77
MB 880-18103/1-A	Method Blank	67 S1-	72
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17863/5-A

Matrix: Solid

Analysis Batch: 17867

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17863

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 11:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 11:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/27/22 08:03	01/27/22 11:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/27/22 08:03	01/27/22 11:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/27/22 08:03	01/27/22 11:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	01/27/22 08:03	01/27/22 11:40	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/27/22 08:03	01/27/22 11:40	1

Lab Sample ID: LCS 880-17863/1-A

Matrix: Solid

Analysis Batch: 17867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07807		mg/Kg		78	70 - 130
Toluene	0.100	0.07443		mg/Kg		74	70 - 130
Ethylbenzene	0.100	0.07762		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1650		mg/Kg		83	70 - 130
o-Xylene	0.100	0.08230		mg/Kg		82	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-17863/2-A

Matrix: Solid

Analysis Batch: 17867

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07959		mg/Kg		80	70 - 130	2	35
Toluene	0.100	0.07701		mg/Kg		77	70 - 130	3	35
Ethylbenzene	0.100	0.08359		mg/Kg		84	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1715		mg/Kg		86	70 - 130	4	35
o-Xylene	0.100	0.08472		mg/Kg		85	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-10599-A-4-B MS

Matrix: Solid

Analysis Batch: 17867

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F1	0.0990	0.01665	F1	mg/Kg		17	70 - 130
Toluene	<0.00198	U F1 F2	0.0990	0.008089	F1	mg/Kg		8	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

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

Lab Sample ID: 880-10599-A-4-B MS

Matrix: Solid

Analysis Batch: 17867

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U F1	0.0990	0.01789	F1	mg/Kg		18	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.198	0.02358	F1	mg/Kg		12	70 - 130
o-Xylene	<0.00198	U F1 F2	0.0990	0.04114	F1	mg/Kg		42	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	70		70 - 130
1,4-Difluorobenzene (Surr)	57	S1-	70 - 130

Lab Sample ID: 880-10599-A-4-C MSD

Matrix: Solid

Analysis Batch: 17867

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0996	0.01314	F1	mg/Kg		13	70 - 130	24	35
Toluene	<0.00198	U F1 F2	0.0996	0.01615	F1 F2	mg/Kg		16	70 - 130	67	35
Ethylbenzene	<0.00198	U F1	0.0996	0.01992	F1	mg/Kg		20	70 - 130	11	35
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.199	0.04936	F1 F2	mg/Kg		25	70 - 130	71	35
o-Xylene	<0.00198	U F1 F2	0.0996	0.02546	F1 F2	mg/Kg		26	70 - 130	47	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-17922/5-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/28/22 07:30	01/28/22 11:18	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/28/22 07:30	01/28/22 11:18	1

Lab Sample ID: LCS 880-17922/1-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07650		mg/Kg		76	70 - 130
Toluene	0.100	0.07336		mg/Kg		73	70 - 130
Ethylbenzene	0.100	0.07414		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	0.200	0.1514		mg/Kg		76	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

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

Lab Sample ID: LCS 880-17922/1-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	0.100	0.07781		mg/Kg		78	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-17922/2-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene	0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene	0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene	0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-1872-3 MS

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 890-1872-3 MSD

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

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

Lab Sample ID: 890-1872-3 MSD

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 17922

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

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

Lab Sample ID: MB 880-18103/1-A

Matrix: Solid

Analysis Batch: 18110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 18103

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 11:07	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 11:07	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 08:21	01/31/22 11:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil	Fac
1-Chlorooctane	67	S1-	70 - 130			01/31/22 08:21	01/31/22 11:07	1	
o-Terphenyl	72		70 - 130			01/31/22 08:21	01/31/22 11:07	1	

Lab Sample ID: LCS 880-18103/2-A

Matrix: Solid

Analysis Batch: 18110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 18103

	Spike	LCS	LCS					%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1250		mg/Kg		125	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1341	*+	mg/Kg		134	70 - 130		
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	81		70 - 130						
o-Terphenyl	76		70 - 130						

Lab Sample ID: LCSD 880-18103/3-A

Matrix: Solid

Analysis Batch: 18110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 18103

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1098		mg/Kg		110	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	1000	1137		mg/Kg		114	70 - 130	17	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	82		70 - 130						
o-Terphenyl	77		70 - 130						

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

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

Lab Sample ID: 890-1869-A-41-G MS

Matrix: Solid

Analysis Batch: 18110

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 18103

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1260		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *+	997	975.6		mg/Kg		96	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	69	S1-	70 - 130						
o-Terphenyl	66	S1-	70 - 130						

Lab Sample ID: 890-1869-A-41-H MSD

Matrix: Solid

Analysis Batch: 18110

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 18103

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1183		mg/Kg		116	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	996	930.0		mg/Kg		92	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	67	S1-	70 - 130								
o-Terphenyl	62	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18029/1-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/01/22 17:20	1

Lab Sample ID: LCS 880-18029/2-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.6		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-18029/3-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	261.3		mg/Kg		105	90 - 110	12	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1870-A-3-D MS

Matrix: Solid

Analysis Batch: 18094

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	76.3	F1	250	327.6		mg/Kg		101	90 - 110

Lab Sample ID: 890-1870-A-3-E MSD

Matrix: Solid

Analysis Batch: 18094

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	76.3	F1	250	293.2	F1	mg/Kg		87	90 - 110	11	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

GC VOA

Prep Batch: 17863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Total/NA	Solid	5035	
890-1872-2	SS04	Total/NA	Solid	5035	
MB 880-17863/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17863/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17863/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10599-A-4-B MS	Matrix Spike	Total/NA	Solid	5035	
880-10599-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Total/NA	Solid	8021B	17863
890-1872-2	SS04	Total/NA	Solid	8021B	17863
MB 880-17863/5-A	Method Blank	Total/NA	Solid	8021B	17863
LCS 880-17863/1-A	Lab Control Sample	Total/NA	Solid	8021B	17863
LCSD 880-17863/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17863
880-10599-A-4-B MS	Matrix Spike	Total/NA	Solid	8021B	17863
880-10599-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17863

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-3	SS05	Total/NA	Solid	5035	
890-1872-4	SS01	Total/NA	Solid	5035	
890-1872-5	SS02	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-3 MS	SS05	Total/NA	Solid	5035	
890-1872-3 MSD	SS05	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-3	SS05	Total/NA	Solid	8021B	17922
890-1872-4	SS01	Total/NA	Solid	8021B	17922
890-1872-5	SS02	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-3 MS	SS05	Total/NA	Solid	8021B	17922
890-1872-3 MSD	SS05	Total/NA	Solid	8021B	17922

Analysis Batch: 18419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Total/NA	Solid	Total BTEX	
890-1872-2	SS04	Total/NA	Solid	Total BTEX	
890-1872-3	SS05	Total/NA	Solid	Total BTEX	
890-1872-4	SS01	Total/NA	Solid	Total BTEX	
890-1872-5	SS02	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

GC Semi VOA

Prep Batch: 18103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Total/NA	Solid	8015NM Prep	
890-1872-2	SS04	Total/NA	Solid	8015NM Prep	
890-1872-3	SS05	Total/NA	Solid	8015NM Prep	
890-1872-4	SS01	Total/NA	Solid	8015NM Prep	
890-1872-5	SS02	Total/NA	Solid	8015NM Prep	
MB 880-18103/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18103/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18103/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1869-A-41-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1869-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Total/NA	Solid	8015B NM	18103
890-1872-2	SS04	Total/NA	Solid	8015B NM	18103
890-1872-3	SS05	Total/NA	Solid	8015B NM	18103
890-1872-4	SS01	Total/NA	Solid	8015B NM	18103
890-1872-5	SS02	Total/NA	Solid	8015B NM	18103
MB 880-18103/1-A	Method Blank	Total/NA	Solid	8015B NM	18103
LCS 880-18103/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18103
LCSD 880-18103/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18103
890-1869-A-41-G MS	Matrix Spike	Total/NA	Solid	8015B NM	18103
890-1869-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18103

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Total/NA	Solid	8015 NM	
890-1872-2	SS04	Total/NA	Solid	8015 NM	
890-1872-3	SS05	Total/NA	Solid	8015 NM	
890-1872-4	SS01	Total/NA	Solid	8015 NM	
890-1872-5	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Soluble	Solid	DI Leach	
890-1872-2	SS04	Soluble	Solid	DI Leach	
890-1872-3	SS05	Soluble	Solid	DI Leach	
890-1872-4	SS01	Soluble	Solid	DI Leach	
890-1872-5	SS02	Soluble	Solid	DI Leach	
MB 880-18029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1870-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1870-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 18094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-1	SS03	Soluble	Solid	300.0	18029
890-1872-2	SS04	Soluble	Solid	300.0	18029

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

HPLC/IC (Continued)

Analysis Batch: 18094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1872-3	SS05	Soluble	Solid	300.0	18029
890-1872-4	SS01	Soluble	Solid	300.0	18029
890-1872-5	SS02	Soluble	Solid	300.0	18029
MB 880-18029/1-A	Method Blank	Soluble	Solid	300.0	18029
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	300.0	18029
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18029
890-1870-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	18029
890-1870-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18029

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Client Sample ID: SS03

Lab Sample ID: 890-1872-1

Date Collected: 01/23/22 15:45

Matrix: Solid

Date Received: 01/26/22 09:52

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	17863	01/27/22 08:03	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17867	01/27/22 19:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 18:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:03	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-1872-2

Date Collected: 01/23/22 15:46

Matrix: Solid

Date Received: 01/26/22 09:52

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	17863	01/27/22 08:03	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17867	01/27/22 19:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 18:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:09	CH	XEN MID

Client Sample ID: SS05

Lab Sample ID: 890-1872-3

Date Collected: 01/23/22 15:47

Matrix: Solid

Date Received: 01/26/22 09:52

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 11:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 19:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:15	CH	XEN MID

Client Sample ID: SS01

Lab Sample ID: 890-1872-4

Date Collected: 01/23/22 15:50

Matrix: Solid

Date Received: 01/26/22 09:52

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Client Sample ID: SS01

Lab Sample ID: 890-1872-4

Date Collected: 01/23/22 15:50

Matrix: Solid

Date Received: 01/26/22 09:52

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			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 19:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:33	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1872-5

Date Collected: 01/23/22 15:51

Matrix: Solid

Date Received: 01/26/22 09:52

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 12:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18103	01/31/22 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18110	01/31/22 20:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:40	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

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:

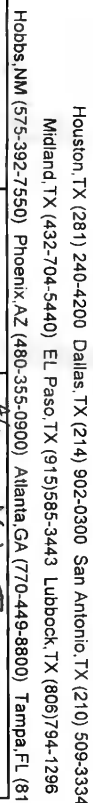
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1872-1
SDG: 31402909.230

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1872-1	SS03	Solid	01/23/22 15:45	01/26/22 09:52	0.5
890-1872-2	SS04	Solid	01/23/22 15:46	01/26/22 09:52	0.5
890-1872-3	SS05	Solid	01/23/22 15:47	01/26/22 09:52	0.5
890-1872-4	SS01	Solid	01/23/22 15:50	01/26/22 09:52	0.5
890-1872-5	SS02	Solid	01/23/22 15:51	01/26/22 09:52	0.5



Chain of Custody

Work Order No:

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2/2/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Jennings <i>Kalei Jennings</i>
Company Name:	WSP USA Inc.	Company Name:	KTO Energy <i>KTO Energy Consulting</i>
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com, Kalei.Jennings@wsp.com

Work Order Comments			
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐			
State of Project:			
Reporting Level I ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐			
Deliverables: EDD ☐ ADaPT ☐ Other: ☐			

Project Name:	Pintail 3001	Turn Around	ANALYSIS REQUEST	 890-1872 Chain of Custody	TAT starts the day received by the lab, if received by 4:30pm		
Project Number:	31402909.230	task 2				Routine ☒	Work Order Notes NAPP2127934644
P.O. Number:						Rush:	
Sampler's Name:	Alexis Castro					Due Date:	
SAMPLE RECEIPT							
Temperature (°C):	1.2/1.0	Temp Blank: ☒ Yes ☐ No	Well Ice: ☒ Yes ☐ No	Thermometer ID			
Received Inact:	☒ Yes ☐ No			Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☐ No ☒			Total Containers:			
Sample Custody Seals:	Yes ☐ No ☒						
Number of Containers							
EPA 8015)							
EPA 0=8021)							
le (EPA 300.0)							

[illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed																										
8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
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 \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	1-26-22 0937			
3		4			
5		6			

Board Date 05/17/18 Rev. 2018

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1872-1

SDG Number: 31402909.230

Login Number: 1872

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1872-1

SDG Number: 31402909.230

Login Number: 1872

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/27/22 11:48 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1873-1

Laboratory Sample Delivery Group: 31402909.230 TASK 2
Client Project/Site: PINTAIL 3001

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:
2/2/2022 4:02:25 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Laboratory Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Job ID: 890-1873-1

Laboratory: Eurofins Carlsbad**Narrative****Job Narrative
890-1873-1****Receipt**

The samples were received on 1/26/2022 9:31 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-17962 and analytical batch 880-18076 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.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18029 and analytical batch 880-18094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Client Sample ID: CH01

Lab Sample ID: 890-1873-1

Date Collected: 01/25/22 10:30

Matrix: Solid

Date Received: 01/26/22 09:31

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		01/28/22 07:30	01/28/22 12:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 12:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 12:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 12:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/28/22 07:30	01/28/22 12:41	1
1,4-Difluorobenzene (Surr)	110		70 - 130	01/28/22 07:30	01/28/22 12:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 09:54	01/31/22 21:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/22 09:54	01/31/22 21:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 09:54	01/31/22 21:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	01/31/22 09:54	01/31/22 21:37	1
o-Terphenyl	91		70 - 130	01/31/22 09:54	01/31/22 21:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	234		4.98	mg/Kg			02/01/22 18:46	1

Client Sample ID: CH01A

Lab Sample ID: 890-1873-2

Date Collected: 01/25/22 10:45

Matrix: Solid

Date Received: 01/26/22 09:31

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/28/22 07:30	01/28/22 13:02	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/28/22 07:30	01/28/22 13:02	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/28/22 07:30	01/28/22 13:02	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/28/22 07:30	01/28/22 13:02	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/28/22 07:30	01/28/22 13:02	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/28/22 07:30	01/28/22 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/28/22 07:30	01/28/22 13:02	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Client Sample ID: CH01A

Lab Sample ID: 890-1873-2

Date Collected: 01/25/22 10:45

Matrix: Solid

Date Received: 01/26/22 09:31

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	105		70 - 130	01/28/22 07:30	01/28/22 13:02	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 22:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 22:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 22:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			01/31/22 09:54	01/31/22 22:40	1
o-Terphenyl	98		70 - 130			01/31/22 09:54	01/31/22 22:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1220		4.98	mg/Kg			02/01/22 18:52	1

Client Sample ID: CH01B

Lab Sample ID: 890-1873-3

Date Collected: 01/25/22 12:30

Matrix: Solid

Date Received: 01/26/22 09:31

Sample Depth: 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/28/22 07:30	01/28/22 13:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/28/22 07:30	01/28/22 13:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/28/22 07:30	01/28/22 13:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/28/22 07:30	01/28/22 13:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/28/22 07:30	01/28/22 13:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/28/22 07:30	01/28/22 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/28/22 07:30	01/28/22 13:22	1
1,4-Difluorobenzene (Surr)	87		70 - 130	01/28/22 07:30	01/28/22 13:22	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Client Sample ID: CH01B

Lab Sample ID: 890-1873-3

Date Collected: 01/25/22 12:30

Matrix: Solid

Date Received: 01/26/22 09:31

Sample Depth: 3.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 23:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 23:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 23:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			01/31/22 09:54	01/31/22 23:01	1
o-Terphenyl	96		70 - 130			01/31/22 09:54	01/31/22 23:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1170		4.97	mg/Kg			01/30/22 19:38	1

Client Sample ID: CH01C

Lab Sample ID: 890-1873-4

Date Collected: 01/25/22 15:00

Matrix: Solid

Date Received: 01/26/22 09:31

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 13:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 13:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 13:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 13:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 13:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 13:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			01/28/22 07:30	01/28/22 13:43	1
1,4-Difluorobenzene (Surr)	82		70 - 130			01/28/22 07:30	01/28/22 13:43	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 23:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 23:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 23:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			01/31/22 09:54	01/31/22 23:21	1
o-Terphenyl	122		70 - 130			01/31/22 09:54	01/31/22 23:21	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Client Sample ID: CH01C
Date Collected: 01/25/22 15:00
Date Received: 01/26/22 09:31
Sample Depth: 4

Lab Sample ID: 890-1873-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	126		4.98	mg/Kg			01/30/22 19:45	1	

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1872-A-3-C MS	Matrix Spike	100	88
890-1872-A-3-D MSD	Matrix Spike Duplicate	100	90
890-1873-1	CH01	114	110
890-1873-2	CH01A	113	105
890-1873-3	CH01B	114	87
890-1873-4	CH01C	122	82
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17922/5-A	Method Blank	111	100
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1873-1	CH01	96	91
890-1873-1 MS	CH01	79	73
890-1873-1 MSD	CH01	85	84
890-1873-2	CH01A	101	98
890-1873-3	CH01B	101	96
890-1873-4	CH01C	130	122
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-18131/2-A	Lab Control Sample	84	82
LCSD 880-18131/3-A	Lab Control Sample Dup	82	78
MB 880-18131/1-A	Method Blank	106	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/28/22 07:30	01/28/22 11:18	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/28/22 07:30	01/28/22 11:18	1

Lab Sample ID: LCS 880-17922/1-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07650		mg/Kg		76	70 - 130
Toluene	0.100	0.07336		mg/Kg		73	70 - 130
Ethylbenzene	0.100	0.07414		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	0.200	0.1514		mg/Kg		76	70 - 130
o-Xylene	0.100	0.07781		mg/Kg		78	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-17922/2-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene	0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene	0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene	0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-1872-A-3-C MS

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

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

Lab Sample ID: 890-1872-A-3-C MS

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 890-1872-A-3-D MSD

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

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

Lab Sample ID: MB 880-18131/1-A

Matrix: Solid

Analysis Batch: 18115

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 18131

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 20:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 20:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 09:54	01/31/22 20:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	01/31/22 09:54	01/31/22 20:34	1
o-Terphenyl	105		70 - 130	01/31/22 09:54	01/31/22 20:34	1

Lab Sample ID: LCS 880-18131/2-A

Matrix: Solid

Analysis Batch: 18115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 18131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1174		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1153		mg/Kg		115	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

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

Lab Sample ID: LCS 880-18131/2-A

Matrix: Solid

Analysis Batch: 18115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 18131

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-18131/3-A

Matrix: Solid

Analysis Batch: 18115

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 18131

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1058		mg/Kg		106	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	983.1		mg/Kg		98	70 - 130	16	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	82		70 - 130								
o-Terphenyl	78		70 - 130								

Lab Sample ID: 890-1873-1 MS

Matrix: Solid

Analysis Batch: 18115

Client Sample ID: CH01

Prep Type: Total/NA

Prep Batch: 18131

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	894.2		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1039		mg/Kg		102	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	79		70 - 130								
o-Terphenyl	73		70 - 130								

Lab Sample ID: 890-1873-1 MSD

Matrix: Solid

Analysis Batch: 18115

Client Sample ID: CH01

Prep Type: Total/NA

Prep Batch: 18131

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	941.8		mg/Kg		92	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1126		mg/Kg		111	70 - 130	8	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	85		70 - 130								
o-Terphenyl	84		70 - 130								

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-17962/1-A

Matrix: Solid

Analysis Batch: 18076

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/30/22 15:57	1

Lab Sample ID: LCS 880-17962/2-A

Matrix: Solid

Analysis Batch: 18076

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	271.8		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-17962/3-A

Matrix: Solid

Analysis Batch: 18076

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	270.5		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-10650-A-1-F MS

Matrix: Solid

Analysis Batch: 18076

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	8.80	F1	248	372.8	F1	mg/Kg		147	90 - 110

Lab Sample ID: 880-10650-A-1-G MSD

Matrix: Solid

Analysis Batch: 18076

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	8.80	F1	248	360.1	F1	mg/Kg		142	90 - 110	3	20

Lab Sample ID: MB 880-18029/1-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/01/22 17:20	1

Lab Sample ID: LCS 880-18029/2-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.6		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-18029/3-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	261.3		mg/Kg		105	90 - 110	12	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1870-A-3-D MS
Matrix: Solid
Analysis Batch: 18094

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	76.3	F1	250	327.6		mg/Kg		101	90 - 110

Lab Sample ID: 890-1870-A-3-E MSD
Matrix: Solid
Analysis Batch: 18094

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	76.3	F1	250	293.2	F1	mg/Kg		87	90 - 110	11	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

GC VOA

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Total/NA	Solid	5035	
890-1873-2	CH01A	Total/NA	Solid	5035	
890-1873-3	CH01B	Total/NA	Solid	5035	
890-1873-4	CH01C	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Total/NA	Solid	8021B	17922
890-1873-2	CH01A	Total/NA	Solid	8021B	17922
890-1873-3	CH01B	Total/NA	Solid	8021B	17922
890-1873-4	CH01C	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	8021B	17922
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17922

Analysis Batch: 18419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Total/NA	Solid	Total BTEX	
890-1873-2	CH01A	Total/NA	Solid	Total BTEX	
890-1873-3	CH01B	Total/NA	Solid	Total BTEX	
890-1873-4	CH01C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 18115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Total/NA	Solid	8015B NM	18131
890-1873-2	CH01A	Total/NA	Solid	8015B NM	18131
890-1873-3	CH01B	Total/NA	Solid	8015B NM	18131
890-1873-4	CH01C	Total/NA	Solid	8015B NM	18131
MB 880-18131/1-A	Method Blank	Total/NA	Solid	8015B NM	18131
LCS 880-18131/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18131
LCSD 880-18131/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18131
890-1873-1 MS	CH01	Total/NA	Solid	8015B NM	18131
890-1873-1 MSD	CH01	Total/NA	Solid	8015B NM	18131

Prep Batch: 18131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Total/NA	Solid	8015NM Prep	
890-1873-2	CH01A	Total/NA	Solid	8015NM Prep	
890-1873-3	CH01B	Total/NA	Solid	8015NM Prep	
890-1873-4	CH01C	Total/NA	Solid	8015NM Prep	
MB 880-18131/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18131/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

GC Semi VOA (Continued)

Prep Batch: 18131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-18131/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1873-1 MS	CH01	Total/NA	Solid	8015NM Prep	
890-1873-1 MSD	CH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Total/NA	Solid	8015 NM	
890-1873-2	CH01A	Total/NA	Solid	8015 NM	
890-1873-3	CH01B	Total/NA	Solid	8015 NM	
890-1873-4	CH01C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 17962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-3	CH01B	Soluble	Solid	DI Leach	
890-1873-4	CH01C	Soluble	Solid	DI Leach	
MB 880-17962/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17962/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17962/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10650-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10650-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 18029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Soluble	Solid	DI Leach	
890-1873-2	CH01A	Soluble	Solid	DI Leach	
MB 880-18029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1870-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1870-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 18076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-3	CH01B	Soluble	Solid	300.0	17962
890-1873-4	CH01C	Soluble	Solid	300.0	17962
MB 880-17962/1-A	Method Blank	Soluble	Solid	300.0	17962
LCS 880-17962/2-A	Lab Control Sample	Soluble	Solid	300.0	17962
LCSD 880-17962/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17962
880-10650-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	17962
880-10650-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17962

Analysis Batch: 18094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1873-1	CH01	Soluble	Solid	300.0	18029
890-1873-2	CH01A	Soluble	Solid	300.0	18029
MB 880-18029/1-A	Method Blank	Soluble	Solid	300.0	18029
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	300.0	18029
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18029
890-1870-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	18029

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

HPLC/IC (Continued)

Analysis Batch: 18094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1870-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18029

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

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Client Sample ID: CH01

Lab Sample ID: 890-1873-1

Date Collected: 01/25/22 10:30

Matrix: Solid

Date Received: 01/26/22 09:31

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 12:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18131	01/31/22 09:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18115	01/31/22 21:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:46	CH	XEN MID

Client Sample ID: CH01A

Lab Sample ID: 890-1873-2

Date Collected: 01/25/22 10:45

Matrix: Solid

Date Received: 01/26/22 09:31

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 13:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18131	01/31/22 09:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18115	01/31/22 22:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 18:52	CH	XEN MID

Client Sample ID: CH01B

Lab Sample ID: 890-1873-3

Date Collected: 01/25/22 12:30

Matrix: Solid

Date Received: 01/26/22 09:31

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 13:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18131	01/31/22 09:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18115	01/31/22 23:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	17962	01/27/22 18:49	CH	XEN MID
Soluble	Analysis	300.0		1			18076	01/30/22 19:38	CH	XEN MID

Client Sample ID: CH01C

Lab Sample ID: 890-1873-4

Date Collected: 01/25/22 15:00

Matrix: Solid

Date Received: 01/26/22 09:31

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	17922	01/28/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 13:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Client Sample ID: CH01C

Date Collected: 01/25/22 15:00

Date Received: 01/26/22 09:31

Lab Sample ID: 890-1873-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18131	01/31/22 09:54	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18115	01/31/22 23:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	17962	01/27/22 18:49	CH	XEN MID
Soluble	Analysis	300.0		1			18076	01/30/22 19:45	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

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: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

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: PINTAIL 3001

Job ID: 890-1873-1
SDG: 31402909.230 TASK 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1873-1	CH01	Solid	01/25/22 10:30	01/26/22 09:31	1
890-1873-2	CH01A	Solid	01/25/22 10:45	01/26/22 09:31	3
890-1873-3	CH01B	Solid	01/25/22 12:30	01/26/22 09:31	3.5
890-1873-4	CH01C	Solid	01/25/22 15:00	01/26/22 09:31	4

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



Work Order No:

Work Order Comments	
Program: UST/PST	☐ PRR ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADaPT ☐ Other:

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	12/1.0	Thermometer ID					
Received In tact:	Yes	No	7NM007				
Cooler Custody Seals:	Yes	No	N/A				
Sample Custody Seals:	Yes	No	N/A				
		Total Containers:					

Number of Containers

(EPA 8015)

(EPA 0=8021)

de (EPA 300.0)

890-1873 Chain of Custody

TAT starts the day received by the lab. If received by 4:30pm

[illegible]

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	1.26.22 0931 ²			
2					
3		4			
4					
5		6			

Revised Date 05/14/18 Rev 2011

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1873-1

SDG Number: 31402909.230 TASK 2

Login Number: 1873

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1873-1
SDG Number: 31402909.230 TASK 2

Login Number: 1873

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/27/22 11:48 AM

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

ATTACHMENT 5: 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	NAPP2127934644
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Kelsy Waggaman	Contact Telephone	(432) 688-9057
Contact email	Kelsy.Waggaman@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2127934644
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.065991 Longitude -103.661821
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Pintail 3 001	Site Type	Tank Battery
Date Release Discovered	June 30, 2021	API# (if applicable)	30-025-40684

Unit Letter	Section	Township	Range	County
O	03	26S	32E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls)	10	Volume Recovered (bbls)	10
☒ Produced Water	Volume Released (bbls)	30	Volume Recovered (bbls)	30
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No		
☐ Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
☐ Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
☐ Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

Cause of Release

The release was caused by a ruptured pipe.
The release occurred within the lined facility. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area evaluated for any possible impact from the release.

Incident ID	NAPP2127934644
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The volume released was greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No immediate notification was given.	

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Brittany N. Esparza	Title: Environmental Technician
Signature: 	Date: 10/7/2021
email: Brittany.Esparza@ConocoPhillips.com	Telephone: (432) 221-0398
<u>OCD Only</u>	
Received by: Ramona Marcus	Date: 10/7/2021

L48 Spill Volume Estimate Form

Received by OCD: 10/7/2021 9:04:51 AM		PINTAIL 3 FEDERAL #1H Lat: 32.066 Long: -103.662		NAPP2127934644		Page 3 of 4						
Asset Area:		DE										
Release Discovery Date & Time:		6/30/2021 11:00										
Release Type:		Oil Mixture										
Provide any known details about the event:		Release was contained to tank berm. Berm was filled with rainwater. All materials were recovered.										
Spill Calculation - On Pad Surface Pool Spill												
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated Pool Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	30.0	50.0	7.25	4	1500.000	0.151	40.328	0.008	40.633	25.00%	10.158	30.475
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Released to Imaging: 10/7/2021 2:15:56 PM					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Total Volume Release:									40.633		10.158	30.475

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 54637

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 54637
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	10/7/2021

Incident ID	NAPP2127934644
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

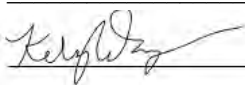
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2127934644
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: Kelsy Waggaman Title: Environmental Engineer
Signature:  Date: 02/08/2022
email: Kelsy.Waggaman@conocophillips.com Telephone: (432)-688-9057

OCD Only

Received by: _____ Date: _____

Incident ID	NAPP2127934644
District RP	
Facility ID	
Application ID	

Closure

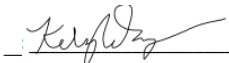
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kelsy Waggaman Title: Environmental Engineer

Signature:  Date: 02/08/2022

email: kelsy.waggaman@conocophillips.com Telephone: (432) 668-9057

OCD Only

Received by: Chad Hensley Date: 02/24/2022

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

Closure Approved by:  Date: 02/24/2022

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

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 80182

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 80182
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	Closure approved.	2/24/2022