

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	nAPP2107743055
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: james.ralej@wpxenergy.com	Incident # (assigned by OCD) nAPP2107743055
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

### Location of Release Source

Latitude 32.341568 \_\_\_\_\_ Longitude -104.0275116 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: LONGVIEW FEDERAL 31 #001H	Site Type: Oil Production Facility
Date Release Discovered: March 16 <sup>th</sup> , 2021	API# (if applicable) 30-015-42049

Unit Letter	Section	Township	Range	County
C	06	23S	29E	Eddy

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 12	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Human Error allowed produced water to be pushed through open ended piping. Releasing approx. 12 bbls of produced water to pad surface and off location.

$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21(\frac{ft^3}{bbl\ equivalent})} * estimated\ soil\ porosity(\%) + recovered\ fluids\ (bbl)$$


State of New Mexico  
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Produced water impacted what could be considered a drainage or waterway based on bed and bank present.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notice was given via email on 3/18/2021 to Robert Hamlet and Emily Hernandez	

**Initial Response**

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:          	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>James Raley</u> Title: Environmental Specialist _____	
Signature:  _____ Date: <u>04/06/2020</u>	
email: <u>james.raley@wpenergy.com</u> Telephone: <u>575-689-7597</u>	
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u> Date: <u>4/29/2021</u>	

**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 23154

**CONDITIONS OF APPROVAL**

Operator: WPX ENERGY PERMIAN, LLC      Devon Energy - Regulatory 333West Sheridan Ave.      Oklahoma City, OK73102		OGRID: 246289	Action Number: 23154	Action Type: C-141
OCD Reviewer rmarcus		Condition None		

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## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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




State of New Mexico  
Oil Conservation Division

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional  
Signature:  Date: 6/1/2021  
email: jim.raley.dvn.com Telephone: 575-689-7597

**OCD Only**

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

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## Closure

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

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

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

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: Jim Raley Title: Environmental Professional  
Signature:  Date: 6/1/2021  
email: jim.raley.dvn.com Telephone: 575-689-7597

**OCD Only**

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



**WSP USA**

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

May 26, 2021

District II  
New Mexico Oil Conservation Division  
811 South First Street  
Artesia, New Mexico 88210

**RE: Closure Request  
Longview Federal 31 #001H  
Incident Number nAPP2107743055  
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of Devon Energy Corporation (Devon), is pleased to present the following Closure Request detailing site assessment, soil sampling, and excavation activities at the Longview Federal 31 #001H (Site) located in Unit C, Section 6, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of produced water at the Site. Based on the excavation activities and results of the soil sampling events, Devon is submitting this Closure Request, describing remediation that has occurred and requesting no further action (NFA) for Incident Number nAPP2107743055.

## **RELEASE BACKGROUND**

On March 16, 2021, human error allowed produced water to be pushed through open ended piping, resulting in the release of 12 barrels (bbls) of produced water onto the surface of the well pad and off location to the pasture south-southeast of the Site. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; however, the vacuum truck was not able to recover any produced water. Devon reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on April 6, 2020 and was assigned Incident Number nAPP2107743055.

## **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). There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation, to suggest the Site is conducive to shallow groundwater. Depth to groundwater at the Site is estimated to be greater than 50 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted water well with depth to water data is New Mexico Office of the State Engineer (NMOSE) file number



C-04417, located approximately 1.09 miles west of the Site. NMOSE well C-04417 was drilled by Devon on March 31, 2020 during a depth to water study of the area. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 55 feet bgs. No water was observed within the soil boring after 48 hours and the boring was plugged and abandoned. Ground surface elevation at the groundwater well location is 3,072 feet above mean sea level (amsl), which is approximately 28 feet lower in elevation than the Site. The NMOSE Well Record and Log of the referenced well is included as Attachment 1.

The closest continuously flowing or significant watercourse to the Site is a stream/river, located approximately 1,292 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is 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: 10,000 mg/kg

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

On March 16, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Based on visible staining in the release area and elevated field screening results, excavation appeared warranted.

On March 19, 2021, Devon submitted a Sundry request to the Bureau of Land Management (BLM), requesting permission to go off pad to remediate impacted soils via excavation to comply with the Closure Criteria, utilizing mechanized equipment within a 50-foot buffer of the release extent. On April 1, 2021, in reply to the request, BLM recommended that no mechanical work be completed within the drainage basin due to the spill being confined to such a small area within the basin and more damage would occur if equipment was utilized. Photographic documentation



of the caliche shelf within the drainage off pad is provided in Attachment 2 and email correspondence in Attachment 3.

## **EXCAVATION AND CONFIRMATION SOIL SAMPLING ACTIVITIES**

Between March 25 and March 29, 2021, WSP personnel were at the Site to oversee excavation activities. Impacted soil was excavated with a track-mounted excavator from the release area as indicated by visible staining and field screening. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 2.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the floor of the excavation and sidewalls where applicable. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths ranging from the ground surface to approximately 4 feet bgs. Composite soil samples FS01 through FS30 were collected from the floor of the excavation from depths ranging from approximately 0.5 foot bgs to 4 feet bgs. The excavation soil samples were placed directly into a 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 Xenco LLC. (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States EPA Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. The excavation extent and excavation soil sample locations are presented on Figure 2.

The excavation area totaled approximately 6,193 square feet. A total of approximately 300 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico under Devon approved manifests. After completion of confirmation sampling, the excavation areas were secured with fencing.

## **SOIL ANALYTICAL RESULTS**

Laboratory analytical results for excavation sidewall samples SW01 and SW02 and floor samples FS01 through FS30 indicated benzene, BTEX, TPH and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4.

District II  
Page 4**CLOSURE REQUEST**

Site assessment and excavation activities were conducted at the Site to address the March 16, 2021 release of produced water. Laboratory analytical results for excavation soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no further remediation appears required. Following approval of the Closure Request by NMOCD, WSP will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

WSP and Devon believe these remedial actions are protective of human health, the environment, and groundwater. As such, Devon respectfully requests NFA for Incident Number nAPP2107743055.

If you have any questions or comments, please do not hesitate to contact Mr. Daniel R. Moir (303) 887-2946.

Sincerely,

WSP USA Inc.

A handwritten signature in black ink, appearing to read 'Fatima Smith'.

Fatima Smith  
Associate Consultant, Geologist

A handwritten signature in black ink, appearing to read 'Daniel R. Moir'.

Daniel R. Moir, P.G.  
Lead Consultant, Geologist

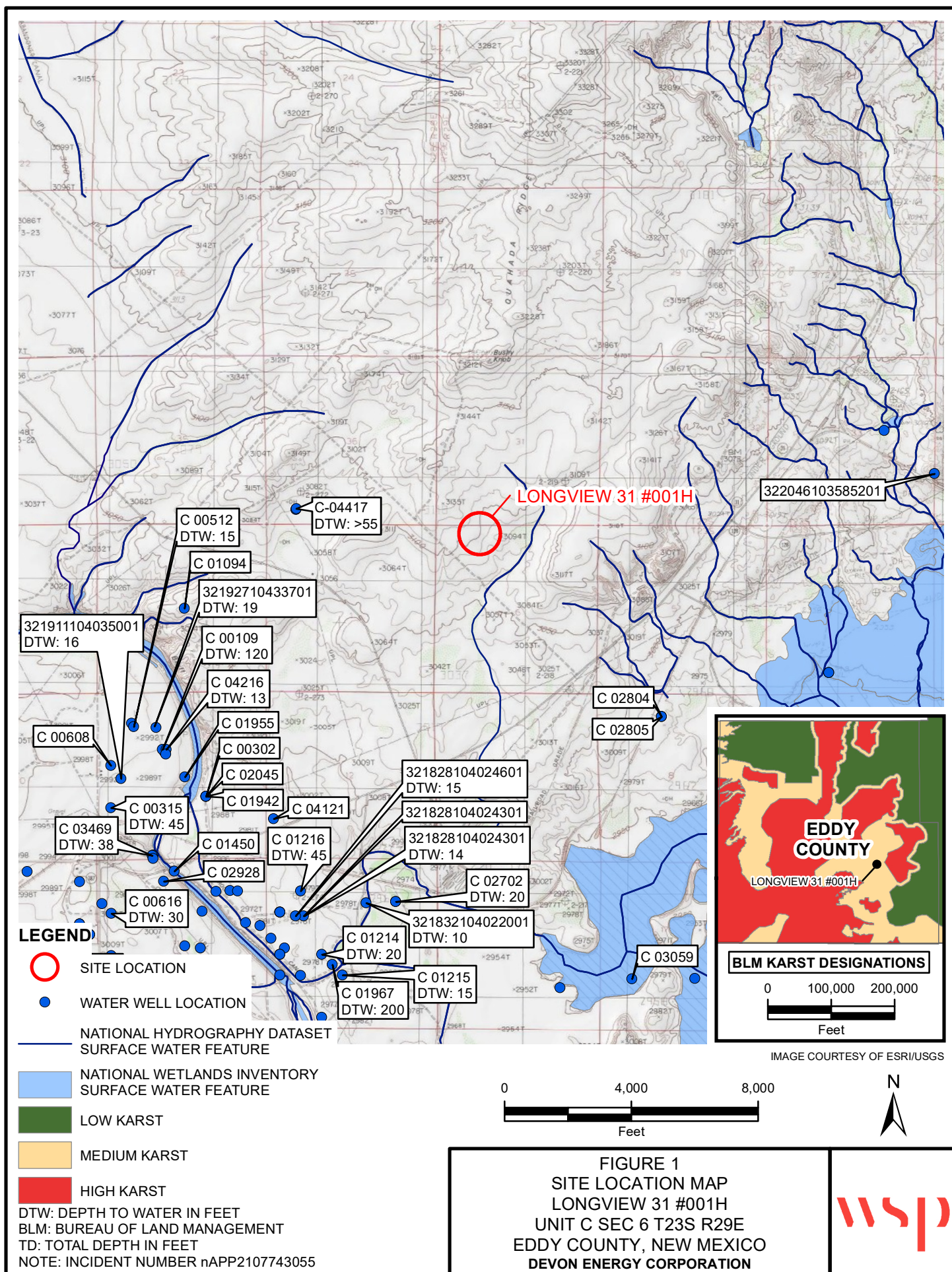
cc: James Raley, Devon  
Bureau of Land Management

**Attachments:**

Figure 1 Site Location Map  
Figure 2 Excavation Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Referenced Well Records  
Attachment 2 Photographic Log  
Attachment 3 BLM Email Correspondence  
Attachment 4 Laboratory Analytical Reports

FIGURES





P:\WPX-Devon\GIS\MXD\034821006\_LONGVIEW 31 #001H\034821006\_FIG01\_SL\_RECEPTOR\_2021.mxd



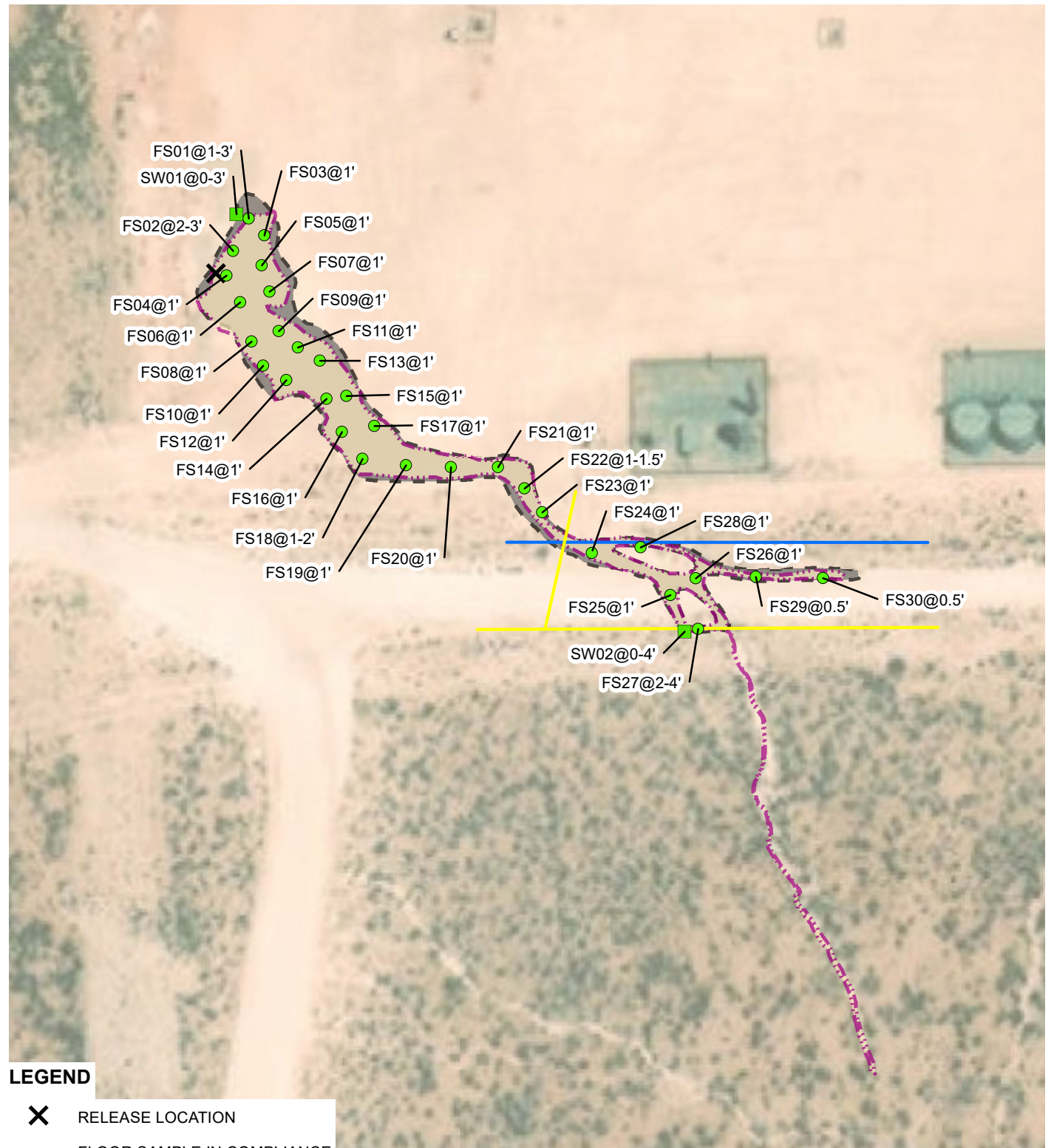


IMAGE COURTESY OF ESRI

**LEGEND**

- X** RELEASE LOCATION
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- WATER LINE
- RELEASE EXTENT
- EXCAVATION EXTENT

NOTE: INCIDENT NUMBER nAPP2107743055

**FIGURE 2**  
**EXCAVATION SOIL SAMPLE LOCATIONS**  
 LONGVIEW 31 #001H  
 UNIT C SEC 6 T23S R29E  
 EDDY COUNTY, NEW MEXICO  
**DEVON ENERGY CORPORATION**



TABLES

Table 1

**Soil Analytical Results**  
**Longview Federal 31 #001H**  
**Incident Number nAPP2107743055**  
**Devon Energy Corporation**  
**Eddy 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	10,000
Excavation Floor Samples										
FS01	03/25/2021	1 - 3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	545
FS02	03/25/2021	2 - 3	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	397
FS03	03/25/2021	1	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	219
FS04	03/25/2021	1	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	204
FS05	03/25/2021	1	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	128
FS06	03/25/2021	1	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	33.0
FS07	03/25/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	87.3
FS08	03/25/2021	1	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	15.9
FS09	03/25/2021	1	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	135
FS10	03/25/2021	1	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	245
FS11	03/25/2021	1	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	174
FS12	03/25/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	265
FS13	03/25/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	213
FS14	03/25/2021	1	<0.00199	0.00333	<50.0	<50.0	<50.0	<50.0	<50.0	151
FS15	03/25/2021	1	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	264
FS16	03/25/2021	1	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	177
FS17	03/25/2021	1	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	88.5
FS18	03/25/2021	1 - 2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	62.5
FS19	03/25/2021	1	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	53.7

Table 1

**Soil Analytical Results**  
**Longview Federal 31 #001H**  
**Incident Number nAPP2107743055**  
**Devon Energy Corporation**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table 1 Closure Criteria (NMAC 19.15.29)</b>			10	50	NE	NE	NE	1,000	2,500	10,000
FS20	03/25/2021	1	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	168
FS21	03/25/2021	1	<0.00200	<0.00200	<49.9	56.5	<49.9	56.5	56.5	94.1
FS22	03/29/2021	1 - 1.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	34.4
FS23	03/29/2021	1	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	47.1
FS24	03/29/2021	1	0.00391	0.0153	<49.9	<49.9	<49.9	<49.9	<49.9	69.1
FS25	03/29/2021	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	284
FS26	03/29/2021	1	<0.00199	0.0129	<49.9	59.2	<49.9	59.2	59.2	142
FS27	03/29/2021	2 - 4	0.00290	0.00290	<50.0	<50.0	<50.0	<50.0	<50.0	214
FS28	03/29/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	46.0
FS29	03/29/2021	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	96.5
FS30	03/29/2021	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	44.1
<b>Excavation Sidewall Samples</b>										
SW01	03/25/2021	0 - 3	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	502
SW02	03/29/2021	0 - 4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	73.6

**Notes**

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

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

NE - Not Established

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

ATTACHMENT 1: REFERENCED WELL RECORD



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1		WELL TAG ID NO. Well Tag ID Not Issued		OSE FILE NO(S) C 04417			
	WELL OWNER NAME(S) WPX Energy				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 5315 Buena Vista Drive				CITY Carlsbad	STATE NM	ZIP 88220	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 20	SECONDS 35.4 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
LONGITUDE -104 02 47.1 W DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE M-36-22S-28E; Pinnacle State #25								
2. DRILLING & CASING INFORMATION	LICENSE NO 1789		NAME OF LICENSED DRILLER Mark Mumby			NAME OF WELL DRILLING COMPANY HRL Compliance Solutions		
	DRILLING STARTED 3/31/2020		DRILLING ENDED 3/31/2020		DEPTH OF COMPLETED WELL (FT) 55	BORE HOLE DEPTH (FT) 55	DEPTH WATER FIRST ENCOUNTERED (FT) Water was not encountered	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) Water was not present in the well after 48-hours		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	45	6.25	Blank PVC	Flush Thread	2.0	0.154	0.010
	45	55	6.25	Factory Slotted PVC Screen	Flush Thread	2.0	0.154	0.010
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
				No Annular Seal Material or Gravel Pack	None			

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	C-4417	POD NO.	1	TRN NO.	670394
LOCATION	334 T22S R28E Sec 36	WELL TAG ID NO.	NA	PAGE 1 OF 2	

#### 4. HYDROGEOLOGIC LOG OF WELL

## 5. TEST; RIG SUPERVISION

## 6. SIGNATURE

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 04/30/2019)	
FILE NO.	C-4417	POD NO.	1
LOCATION	334 T22.5 R22.8 E S. 36	TRN NO.	670344
		WELL TAG ID NO.	NA
			PAGE 2 OF 2

John R. D Antonio, Jr., P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 670344  
File Nbr: C 04417  
Well File Nbr: C 04417 POD1

May. 29, 2020

LYNDA LAUMBACH  
WPX ENERGY  
5315 BUENA VISTA DRIVE  
CARLSBAD, NM 88220

Greetings:

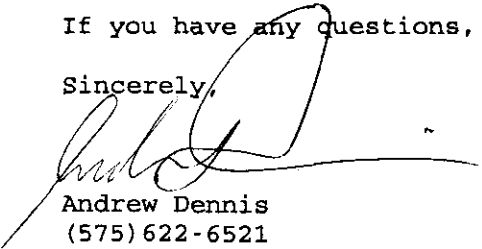
The above numbered permit was issued in your name on 03/26/2020.

The Well Record was received in this office on 05/26/2020, stating that it had been completed on 03/31/2020, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 03/26/2021.

If you have any questions, please feel free to contact us.

Sincerely,

  
Andrew Dennis  
(575) 622-6521

drywell




ATTACHMENT 2: PHOTOGRAPHIC LOG

**PHOTOGRAPHIC LOG**

<b>Devon Energy Corporation</b>	<b>Longview Federal 13 #001H Eddy County, NM</b>	<b>TE034821006</b>
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<b>Photo No.</b>	<b>Date</b>	
1	March 16, 2021	
View of initial release on pad facing southeast		 A photograph showing a wide, flat, sandy area with sparse desert vegetation. In the background, there is an industrial facility with several tall, thin structures and a small building. The sky is hazy and overcast.

<b>Photo No.</b>	<b>Date</b>	
2	March 16, 2021	
Flow path of initial release onto lease road facing southeast		 A photograph showing a dirt road or path leading towards an industrial facility. The ground is sandy and uneven, with some small puddles or wet patches. The facility is visible in the background, and the sky is hazy.

**PHOTOGRAPHIC LOG**

<b>Devon Energy Corporation</b>	<b>Longview Federal 13 #001H Eddy County, NM</b>	<b>TE034821006</b>
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<b>Photo No.</b>	<b>Date</b>	
3	March 25, 2020	
While excavating via trackhoe facing northwest.		 A yellow trackhoe is shown in the middle of excavating a dirt pad. The machine is positioned on a raised area of the pad, with its arm extended. The ground is dry, dusty, and uneven. In the background, there are some sparse desert plants and a clear blue sky.

<b>Photo No.</b>	<b>Date</b>	
4	March 25, 2021	
Final on pad excavation facing south-southwest.		 A yellow trackhoe is shown in the middle of excavating a dirt pad. The machine is positioned on a raised area of the pad, with its arm extended. The ground is dry, dusty, and uneven. In the background, there are some sparse desert plants and a clear blue sky.





# PHOTOGRAPHIC LOG

<b>Devon Energy Corporation</b>	<b>Longview Federal 13 #001H Eddy County, NM</b>	<b>TE034821006</b>
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Photo No.	Date	
5	March 29, 2021	
Final excavation facing north-northwest.		

Photo No.	Date	
6	March 29, 2021	
Final lease road excavation facing west.		



PHOTOGRAPHIC LOG		
Devon Energy Corporation	Longview Federal 13 #001H Eddy County, NM	TE034821006

Photo No.	Date	
7	March 30, 2021	
View of drainage feature within pasture facing north.		 <p>03/30/2021 12:22</p>

ATTACHMENT 3: BLM EMAIL CORRESPONDENCE

**From:** Arias, Arthur A <[aaarias@blm.gov](mailto:aaarias@blm.gov)>  
**Sent:** Thursday, April 1, 2021 10:48 AM  
**To:** Raley, Jim <[James.Raley@wpxenergy.com](mailto:James.Raley@wpxenergy.com)>  
**Subject:** Re: [EXTERNAL] Longview 31-1 Sundry Request

Jim, I looked at this location where this spill occurred, I agree with you on doing NO mechanical work on this small area the impact is so small more damage will be done putting equipment in there. The spill stayed within the drainage which is a rocky bottom most of it. I did not see a large even a small area of salt stains. It looks like the pad area and the road on it the southside have been work on and areas where already dug up and place in an area to be removed from location. I recommend full clean up on road and pad and leave the drainage alone.....

---

**From:** Raley, Jim <[James.Raley@wpxenergy.com](mailto:James.Raley@wpxenergy.com)>  
**Sent:** Friday, March 19, 2021 2:14 PM  
**To:** Arias, Arthur A <[aaarias@blm.gov](mailto:aaarias@blm.gov)>  
**Subject:** [EXTERNAL] Longview 31-1 Sundry Request

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Arthur,  
On 3/16/2021 WPX Energy had a 12 bbl release of produced water at the Longview 31-1. Most of the produced water stayed on location, but a relatively small amount did make it off the pad and ran into the pasture. This was a reportable spill and has been reported to NMOCD.  
WPX seeks permission to go off-site and cleanup impacted soils to comply with NMOCD cleanup standards. We plan on using mechanized equipment and will stay within a 50 ft buffer of the spill area as indicated on the attached map and sundry request. After successful completion of cleanup efforts WPX Energy will replace any removed soils, reseed area and place appropriate stormwater structures to prevent erosion.

Attached:

- Sundry Request
- Map of Spill Area including 50 ft buffer
- Shapefile of spill area and buffer area

Well Info:

- 30-015-42049
- Longview Federal 31 #001H
- 32.341192, -104.027534

Jim Raley | Environmental Specialist - Permian Basin

5315 Buena Vista Dr., Carlsbad, NM 88220  
C: (575)689-7597 | [james.raley@wpenergy.com](mailto:james.raley@wpenergy.com)





ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-443-1

Laboratory Sample Delivery Group: Eddy County NM  
Client Project/Site: Longview 31-1

For:

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

Attn: Joseph Hernandez

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

Authorized for release by:  
4/12/2021 5:57:29 PM

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

#### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

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

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

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

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Laboratory Job ID: 890-443-1  
SDG: Eddy County NM

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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 Xenco, Carlsbad

## Case Narrative

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

### Job ID: 890-443-1

### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

#### Job Narrative 890-443-1

#### Receipt

The samples were received on 3/26/2021 4:47 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

#### Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-443-1), FS02 (890-443-2), FS03 (890-443-3), FS04 (890-443-4), FS05 (890-443-5), FS06 (890-443-6), FS07 (890-443-7), FS08 (890-443-8), FS09 (890-443-9), FS10 (890-443-10), FS11 (890-443-11), FS12 (890-443-12), FS13 (890-443-13), FS14 (890-443-14), FS15 (890-443-15), FS16 (890-443-16), FS17 (890-443-17), FS18 (890-443-18), FS19 (890-443-19), FS20 (890-443-20) and FS21 (890-443-21).

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-1443 and analytical batch 880-1444 were outside control limits: (890-443-A-21-C MS) and (890-443-A-21-D MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: FS13 (890-443-13), FS14 (890-443-14) and FS16 (890-443-16). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS14 (890-443-14). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### GC Semi VOA

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

#### HPLC/IC

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

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS01

Lab Sample ID: 890-443-1

Date Collected: 03/25/21 15:35

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: 1 - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 19:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 19:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 19:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/07/21 11:05	04/07/21 19:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 19:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/07/21 11:05	04/07/21 19:12	1
Total BTEX	<0.00200	U *1	0.00200		mg/Kg		04/07/21 11:05	04/07/21 19:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	04/07/21 11:05	04/07/21 19:12	1
1,4-Difluorobenzene (Surr)	104		70 - 130	04/07/21 11:05	04/07/21 19:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	49.9		mg/Kg		04/06/21 16:11	04/07/21 11:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		04/06/21 16:11	04/07/21 11:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 11:43	1
Total TPH	<49.9	U F1	49.9		mg/Kg		04/06/21 16:11	04/07/21 11:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	04/06/21 16:11	04/07/21 11:43	1
o-Terphenyl	118		70 - 130	04/06/21 16:11	04/07/21 11:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	545		5.03		mg/Kg			04/08/21 17:48	1

Client Sample ID: FS02

Lab Sample ID: 890-443-2

Date Collected: 03/25/21 15:45

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: 2 - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 16:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 16:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 16:34	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/07/21 12:13	04/07/21 16:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 16:34	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/07/21 12:13	04/07/21 16:34	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	04/07/21 12:13	04/07/21 16:34	1
1,4-Difluorobenzene (Surr)	103		70 - 130	04/07/21 12:13	04/07/21 16:34	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## Client Sample ID: FS02

## Lab Sample ID: 890-443-2

Date Collected: 03/25/21 15:45

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: 2 - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 21:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 21:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 21:24	1
Total TPH	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 21:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	04/07/21 15:02	04/07/21 21:24	1
o-Terphenyl	116		70 - 130	04/07/21 15:02	04/07/21 21:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	397		4.99		mg/Kg			04/08/21 18:04	1

## Client Sample ID: FS03

## Lab Sample ID: 890-443-3

Date Collected: 03/25/21 12:48

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:54	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/07/21 12:13	04/07/21 16:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:54	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/07/21 12:13	04/07/21 16:54	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	04/07/21 12:13	04/07/21 16:54	1
1,4-Difluorobenzene (Surr)	102		70 - 130	04/07/21 12:13	04/07/21 16:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 22:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 22:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 22:28	1
Total TPH	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/07/21 15:02	04/07/21 22:28	1
o-Terphenyl	104		70 - 130	04/07/21 15:02	04/07/21 22:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	219		24.8		mg/Kg			04/08/21 18:10	5

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS04

Lab Sample ID: 890-443-4

Date Collected: 03/25/21 12:50

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 17:15	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 17:15	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 17:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/07/21 12:13	04/07/21 17:15	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 17:15	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/07/21 12:13	04/07/21 17:15	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	04/07/21 12:13	04/07/21 17:15	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/07/21 12:13	04/07/21 17:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/07/21 22:49	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/07/21 22:49	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/07/21 22:49	1
Total TPH	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/07/21 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/07/21 15:02	04/07/21 22:49	1
o-Terphenyl	111		70 - 130	04/07/21 15:02	04/07/21 22:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		4.97		mg/Kg			04/08/21 18:15	1

Client Sample ID: FS05

Lab Sample ID: 890-443-5

Date Collected: 03/25/21 12:56

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 17:35	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 17:35	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 17:35	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/07/21 12:13	04/07/21 17:35	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 17:35	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/07/21 12:13	04/07/21 17:35	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	04/07/21 12:13	04/07/21 17:35	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/07/21 12:13	04/07/21 17:35	1

Eurofins Xenco, Carlsbad



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS05

Lab Sample ID: 890-443-5

Date Collected: 03/25/21 12:56

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:11	1
Total TPH	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/07/21 15:02	04/07/21 23:11	1
o-Terphenyl	108		70 - 130	04/07/21 15:02	04/07/21 23:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	128		25.0		mg/Kg			04/08/21 18:21	5

Client Sample ID: FS06

Lab Sample ID: 890-443-6

Date Collected: 03/25/21 13:00

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 17:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 17:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 17:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/07/21 12:13	04/07/21 17:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 17:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/07/21 12:13	04/07/21 17:56	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	04/07/21 12:13	04/07/21 17:56	1
1,4-Difluorobenzene (Surr)	99		70 - 130	04/07/21 12:13	04/07/21 17:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:33	1
Total TPH	<49.9	U	49.9		mg/Kg		04/07/21 15:02	04/07/21 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/07/21 15:02	04/07/21 23:33	1
o-Terphenyl	110		70 - 130	04/07/21 15:02	04/07/21 23:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.0		4.99		mg/Kg			04/08/21 18:37	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS07

Lab Sample ID: 890-443-7

Date Collected: 03/25/21 13:05

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 18:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 18:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 18:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/07/21 12:13	04/07/21 18:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 18:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/07/21 12:13	04/07/21 18:16	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	04/07/21 12:13	04/07/21 18:16	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/07/21 12:13	04/07/21 18:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 23:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 23:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 23:53	1
Total TPH	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/07/21 15:02	04/07/21 23:53	1
o-Terphenyl	110		70 - 130	04/07/21 15:02	04/07/21 23:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87.3		4.98		mg/Kg			04/08/21 18:43	1

Client Sample ID: FS08

Lab Sample ID: 890-443-8

Date Collected: 03/25/21 13:10

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 18:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 18:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 18:37	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/07/21 12:13	04/07/21 18:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 18:37	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/07/21 12:13	04/07/21 18:37	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	04/07/21 12:13	04/07/21 18:37	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/07/21 12:13	04/07/21 18:37	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS08

Lab Sample ID: 890-443-8

Date Collected: 03/25/21 13:10

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/08/21 00:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/08/21 00:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/08/21 00:15	1
Total TPH	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/08/21 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/07/21 15:02	04/08/21 00:15	1
o-Terphenyl	110		70 - 130	04/07/21 15:02	04/08/21 00:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.9		4.50		mg/Kg			04/08/21 18:48	1

Client Sample ID: FS09

Lab Sample ID: 890-443-9

Date Collected: 03/25/21 13:12

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 17:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 17:04	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	04/08/21 10:10	04/08/21 17:04	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/08/21 10:10	04/08/21 17:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:36	1
Total TPH	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/07/21 15:02	04/08/21 00:36	1
o-Terphenyl	106		70 - 130	04/07/21 15:02	04/08/21 00:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		24.8		mg/Kg			04/08/21 18:54	5

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS10

Lab Sample ID: 890-443-10

Date Collected: 03/25/21 13:15

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 17:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 17:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 17:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/08/21 10:10	04/08/21 17:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 17:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/08/21 10:10	04/08/21 17:30	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	04/08/21 10:10	04/08/21 17:30	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/08/21 10:10	04/08/21 17:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:57	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:57	1
Total TPH	<49.8	U	49.8		mg/Kg		04/07/21 15:02	04/08/21 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	04/07/21 15:02	04/08/21 00:57	1
o-Terphenyl	113		70 - 130	04/07/21 15:02	04/08/21 00:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	245		25.0		mg/Kg			04/08/21 18:59	5

Client Sample ID: FS11

Lab Sample ID: 890-443-11

Date Collected: 03/25/21 13:20

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 17:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 17:55	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	04/08/21 10:10	04/08/21 17:55	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/08/21 10:10	04/08/21 17:55	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS11

Lab Sample ID: 890-443-11

Date Collected: 03/25/21 13:20

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 16:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 16:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 16:19	1
Total TPH	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/06/21 16:11	04/07/21 16:19	1
o-Terphenyl	112		70 - 130	04/06/21 16:11	04/07/21 16:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	174	F1	25.0		mg/Kg			04/08/21 19:05	5

Client Sample ID: FS12

Lab Sample ID: 890-443-12

Date Collected: 03/25/21 13:22

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 18:20	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 18:20	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 18:20	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/08/21 10:10	04/08/21 18:20	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 18:20	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/08/21 10:10	04/08/21 18:20	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/08/21 10:10	04/08/21 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	04/08/21 10:10	04/08/21 18:20	1
1,4-Difluorobenzene (Surr)	104		70 - 130	04/08/21 10:10	04/08/21 18:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 16:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 16:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 16:40	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	04/06/21 16:11	04/07/21 16:40	1
o-Terphenyl	106		70 - 130	04/06/21 16:11	04/07/21 16:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	265		25.1		mg/Kg			04/08/21 19:22	5

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS13

Lab Sample ID: 890-443-13

Date Collected: 03/25/21 13:27

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 21:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 21:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 21:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/07/21 12:13	04/07/21 21:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 21:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/07/21 12:13	04/07/21 21:49	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 21:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	04/07/21 12:13	04/07/21 21:49	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/07/21 12:13	04/07/21 21:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:01	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	04/06/21 16:11	04/07/21 17:01	1
o-Terphenyl	115		70 - 130	04/06/21 16:11	04/07/21 17:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	213		25.1		mg/Kg			04/08/21 19:27	5

Client Sample ID: FS14

Lab Sample ID: 890-443-14

Date Collected: 03/25/21 14:26

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 22:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 22:09	1
Ethylbenzene	0.00333		0.00199		mg/Kg		04/07/21 12:13	04/07/21 22:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/07/21 12:13	04/07/21 22:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/07/21 12:13	04/07/21 22:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/07/21 12:13	04/07/21 22:09	1
Total BTEX	0.00333		0.00199		mg/Kg		04/07/21 12:13	04/07/21 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	148	S1+	70 - 130	04/07/21 12:13	04/07/21 22:09	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/07/21 12:13	04/07/21 22:09	1

Eurofins Xenco, Carlsbad



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS14

Lab Sample ID: 890-443-14

Date Collected: 03/25/21 14:26

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:22	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	04/06/21 16:11	04/07/21 17:22	1
o-Terphenyl	117		70 - 130	04/06/21 16:11	04/07/21 17:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	151		5.02		mg/Kg			04/08/21 19:44	1

Client Sample ID: FS15

Lab Sample ID: 890-443-15

Date Collected: 03/25/21 14:28

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:29	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:29	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:29	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/07/21 12:13	04/07/21 22:29	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:29	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/07/21 12:13	04/07/21 22:29	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	04/07/21 12:13	04/07/21 22:29	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/07/21 12:13	04/07/21 22:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 17:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 17:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 17:43	1
Total TPH	<49.9	U	49.9		mg/Kg		04/06/21 16:11	04/07/21 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/06/21 16:11	04/07/21 17:43	1
o-Terphenyl	108		70 - 130	04/06/21 16:11	04/07/21 17:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	264		5.02		mg/Kg			04/08/21 19:49	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS16

Lab Sample ID: 890-443-16

Date Collected: 03/25/21 14:30

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:50	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:50	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/07/21 12:13	04/07/21 22:50	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:50	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/07/21 12:13	04/07/21 22:50	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/07/21 12:13	04/07/21 22:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	04/07/21 12:13	04/07/21 22:50	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/07/21 12:13	04/07/21 22:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:11	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:11	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:11	1
Total TPH	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/06/21 16:11	04/07/21 18:11	1
o-Terphenyl	111		70 - 130	04/06/21 16:11	04/07/21 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	177		5.04		mg/Kg			04/08/21 19:55	1

Client Sample ID: FS17

Lab Sample ID: 890-443-17

Date Collected: 03/25/21 14:35

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 23:10	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 23:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 23:10	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/07/21 12:13	04/07/21 23:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 23:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/07/21 12:13	04/07/21 23:10	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/07/21 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	04/07/21 12:13	04/07/21 23:10	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/07/21 12:13	04/07/21 23:10	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS17

Lab Sample ID: 890-443-17

Date Collected: 03/25/21 14:35

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:33	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:33	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:33	1
Total TPH	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	04/06/21 16:11	04/07/21 18:33	1
o-Terphenyl	116		70 - 130	04/06/21 16:11	04/07/21 18:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.5		4.97		mg/Kg			04/08/21 20:00	1

Client Sample ID: FS18

Lab Sample ID: 890-443-18

Date Collected: 03/26/21 13:10

Matrix: Solid

Date Received: 03/26/21 16:47

Sample Depth: 1 - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 23:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 23:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 23:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/07/21 12:13	04/07/21 23:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 23:31	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/07/21 12:13	04/07/21 23:31	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	04/07/21 12:13	04/07/21 23:31	1
1,4-Difluorobenzene (Surr)	102		70 - 130	04/07/21 12:13	04/07/21 23:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 18:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 18:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 18:54	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/06/21 16:11	04/07/21 18:54	1
o-Terphenyl	111		70 - 130	04/06/21 16:11	04/07/21 18:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.5		5.00		mg/Kg			04/11/21 20:03	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS19

Lab Sample ID: 890-443-19

Date Collected: 03/25/21 14:55

Matrix: Solid

Date Received: 03/26/21 16:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 23:51	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 23:51	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 23:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/07/21 12:13	04/07/21 23:51	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 23:51	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/07/21 12:13	04/07/21 23:51	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		04/07/21 12:13	04/07/21 23:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	04/07/21 12:13	04/07/21 23:51	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/07/21 12:13	04/07/21 23:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 19:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 19:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 19:16	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/06/21 16:11	04/07/21 19:16	1
o-Terphenyl	110		70 - 130	04/06/21 16:11	04/07/21 19:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.7		4.96		mg/Kg			04/08/21 20:06	1

Client Sample ID: FS20

Lab Sample ID: 890-443-20

Date Collected: 03/25/21 14:57

Matrix: Solid

Date Received: 03/26/21 16:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/08/21 00:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/08/21 00:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/08/21 00:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/07/21 12:13	04/08/21 00:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/08/21 00:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/07/21 12:13	04/08/21 00:11	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/07/21 12:13	04/08/21 00:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	04/07/21 12:13	04/08/21 00:11	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/07/21 12:13	04/08/21 00:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 19:37	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS20

Lab Sample ID: 890-443-20

Date Collected: 03/25/21 14:57

Matrix: Solid

Date Received: 03/26/21 16:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 19:37	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 19:37	1
Total TPH	<50.1	U	50.1		mg/Kg		04/06/21 16:11	04/07/21 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				04/06/21 16:11	04/07/21 19:37	1
o-Terphenyl	108		70 - 130				04/06/21 16:11	04/07/21 19:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	168		4.99		mg/Kg			04/08/21 20:11	1

Client Sample ID: FS21

Lab Sample ID: 890-443-21

Date Collected: 03/25/21 15:00

Matrix: Solid

Date Received: 03/26/21 16:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
Toluene	<0.00200	U F2 F1	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
Total BTEX	<0.00200	U F2	0.00200		mg/Kg		04/07/21 12:13	04/07/21 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				04/07/21 12:13	04/07/21 16:14	1
1,4-Difluorobenzene (Surr)	95		70 - 130				04/07/21 12:13	04/07/21 16:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	56.5		49.9		mg/Kg		04/06/21 13:35	04/07/21 03:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/06/21 13:35	04/07/21 03:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/06/21 13:35	04/07/21 03:30	1
Total TPH	56.5		49.9		mg/Kg		04/06/21 13:35	04/07/21 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				04/06/21 13:35	04/07/21 03:30	1
o-Terphenyl	79		70 - 130				04/06/21 13:35	04/07/21 03:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	94.1		4.96		mg/Kg			04/11/21 20:22	1

Eurofins Xenco, Carlsbad

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-443-1	FS01	116	104
890-443-1 MS	FS01	129	108
890-443-1 MSD	FS01	123	111
890-443-2	FS02	115	103
890-443-3	FS03	115	102
890-443-4	FS04	120	101
890-443-5	FS05	116	100
890-443-6	FS06	117	99
890-443-7	FS07	118	101
890-443-8	FS08	113	98
890-443-9	FS09	113	96
890-443-10	FS10	124	101
890-443-11	FS11	116	100
890-443-12	FS12	125	104
890-443-13	FS13	122	92
890-443-14	FS14	148 S1+	93
890-443-15	FS15	118	100
890-443-16	FS16	116	95
890-443-17	FS17	110	100
890-443-18	FS18	115	102
890-443-19	FS19	112	101
890-443-20	FS20	115	98
890-443-21	FS21	115	95
890-443-21 MS	FS21	100	79
890-443-21 MSD	FS21	106	101
LCS 880-1434/1-A	Lab Control Sample	113	107
LCS 880-1443/1-A	Lab Control Sample	103	100
LCS 880-1506/1-A	Lab Control Sample	101	96
LCSD 880-1434/2-A	Lab Control Sample Dup	95	100
LCSD 880-1443/2-A	Lab Control Sample Dup	103	101
LCSD 880-1506/2-A	Lab Control Sample Dup	110	112
MB 880-1434/5-A	Method Blank	101	101
MB 880-1443/5-A	Method Blank	109	99
MB 880-1506/5-A	Method Blank	75	83

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-443-1	FS01	105	118
890-443-1 MS	FS01	108	107
890-443-1 MSD	FS01	109	105
890-443-2	FS02	102	116
890-443-2 MS	FS02	108	109

Eurofins Xenco, Carlsbad



## Surrogate Summary

Client: WSP USA Inc.

Job ID: 890-443-1

Project/Site: Longview 31-1

SDG: Eddy County NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-443-2 MSD	FS02	104	101
890-443-3	FS03	97	104
890-443-4	FS04	100	111
890-443-5	FS05	97	108
890-443-6	FS06	99	110
890-443-7	FS07	100	110
890-443-8	FS08	100	110
890-443-9	FS09	97	106
890-443-10	FS10	103	113
890-443-11	FS11	101	112
890-443-12	FS12	98	106
890-443-13	FS13	104	115
890-443-14	FS14	109	117
890-443-15	FS15	100	108
890-443-16	FS16	100	111
890-443-17	FS17	102	116
890-443-18	FS18	99	111
890-443-19	FS19	99	110
890-443-20	FS20	99	108
890-443-21	FS21	85	79
LCS 880-1378/2-A	Lab Control Sample	105	91
LCS 880-1401/2-A	Lab Control Sample	110	110
LCS 880-1471/2-A	Lab Control Sample	111	117
LCSD 880-1378/3-A	Lab Control Sample Dup	104	91
LCSD 880-1401/3-A	Lab Control Sample Dup	113	121
LCSD 880-1471/3-A	Lab Control Sample Dup	119	119
MB 880-1378/1-A	Method Blank	104	100
MB 880-1401/1-A	Method Blank	117	131 S1+
MB 880-1471/1-A	Method Blank	113	129

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: MB 880-1434/5-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1434

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/07/21 11:05	04/07/21 18:50	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/07/21 11:05	04/07/21 18:50	1

Lab Sample ID: LCS 880-1434/1-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1167		mg/Kg		117	70 - 130
Toluene	0.100	0.1086		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1119		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2255		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1195		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-1434/2-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08693		mg/Kg		87	70 - 130	29	35
Toluene	0.100	0.08347		mg/Kg		83	70 - 130	26	35
Ethylbenzene	0.100	0.08614		mg/Kg		86	70 - 130	26	35
m-Xylene & p-Xylene	0.200	0.1683		mg/Kg		84	70 - 130	29	35
o-Xylene	0.100	0.08392		mg/Kg		84	70 - 130	35	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-443-1 MS

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0998	0.1187		mg/Kg		119	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: 890-443-1 MS

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00200	U	0.0998	0.09649		mg/Kg		96	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.08426		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1729		mg/Kg		87	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09887		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-443-1 MSD

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1229		mg/Kg		123	70 - 130	3	35
Toluene	<0.00200	U	0.0996	0.09541		mg/Kg		95	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0996	0.07983		mg/Kg		80	70 - 130	5	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1610		mg/Kg		81	70 - 130	7	35
o-Xylene	<0.00200	U	0.0996	0.09306		mg/Kg		93	70 - 130	6	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: MB 880-1443/5-A

Matrix: Solid

Analysis Batch: 1444

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1443

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 15:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 15:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 15:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/07/21 12:13	04/07/21 15:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 15:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/07/21 12:13	04/07/21 15:45	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 12:13	04/07/21 15:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	04/07/21 12:13	04/07/21 15:45	1
1,4-Difluorobenzene (Surr)	99		70 - 130	04/07/21 12:13	04/07/21 15:45	1

Lab Sample ID: LCS 880-1443/1-A

Matrix: Solid

Analysis Batch: 1444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08280		mg/Kg		83	70 - 130
Toluene	0.100	0.09258		mg/Kg		93	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: LCS 880-1443/1-A

Matrix: Solid

Analysis Batch: 1444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.100	0.1028		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2080		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1045		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-1443/2-A

Matrix: Solid

Analysis Batch: 1444

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1443

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07721		mg/Kg		77	70 - 130	7	35
Toluene	0.100	0.08577		mg/Kg		86	70 - 130	8	35
Ethylbenzene	0.100	0.09491		mg/Kg		95	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1911		mg/Kg		96	70 - 130	8	35
o-Xylene	0.100	0.09715		mg/Kg		97	70 - 130	7	35

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

Lab Sample ID: 890-443-21 MS

Matrix: Solid

Analysis Batch: 1444

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 1443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F2 F1	0.0998	0.04867	F1	mg/Kg		49	70 - 130
Toluene	<0.00200	U F2 F1	0.0998	0.06183	F1	mg/Kg		62	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.08422		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1594		mg/Kg		80	70 - 130
o-Xylene	<0.00200	U	0.0998	0.07350		mg/Kg		74	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	79		70 - 130

Lab Sample ID: 890-443-21 MSD

Matrix: Solid

Analysis Batch: 1444

Client Sample ID: FS21

Prep Type: Total/NA

Prep Batch: 1443

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00200	U F2 F1	0.0996	0.08374	F2	mg/Kg		84	70 - 130	53	35
Toluene	<0.00200	U F2 F1	0.0996	0.08904	F2	mg/Kg		89	70 - 130	36	35
Ethylbenzene	<0.00200	U	0.0996	0.09341		mg/Kg		93	70 - 130	10	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1918		mg/Kg		96	70 - 130	18	35
o-Xylene	<0.00200	U	0.0996	0.09425		mg/Kg		95	70 - 130	25	35

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: MB 880-1506/5-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1506

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1	

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
4-Bromofluorobenzene (Surr)	75		70 - 130				04/08/21 10:10	04/08/21 16:14	1	
1,4-Difluorobenzene (Surr)	83		70 - 130				04/08/21 10:10	04/08/21 16:14	1	

Lab Sample ID: LCS 880-1506/1-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1506

	Spike	LCS	LCS							
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits		
Benzene	0.100	0.1038		mg/Kg		104		70 - 130		
Toluene	0.100	0.1129		mg/Kg		113		70 - 130		
Ethylbenzene	0.100	0.1056		mg/Kg		106		70 - 130		
m-Xylene & p-Xylene	0.200	0.2152		mg/Kg		108		70 - 130		
o-Xylene	0.100	0.1146		mg/Kg		115		70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-1506/2-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1506

	Spike	LCSD	LCSD								
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits	RPD	Limit	
Benzene	0.100	0.1103		mg/Kg		110		70 - 130	6	35	
Toluene	0.100	0.1052		mg/Kg		105		70 - 130	7	35	
Ethylbenzene	0.100	0.1110		mg/Kg		111		70 - 130	5	35	
m-Xylene & p-Xylene	0.200	0.2278		mg/Kg		114		70 - 130	6	35	
o-Xylene	0.100	0.1231		mg/Kg		123		70 - 130	7	35	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: MB 880-1378/1-A

Matrix: Solid

Analysis Batch: 1362

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	04/06/21 13:35	04/06/21 21:27	1
o-Terphenyl	100		70 - 130	04/06/21 13:35	04/06/21 21:27	1

Lab Sample ID: LCS 880-1378/2-A

Matrix: Solid

Analysis Batch: 1362

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1146		mg/Kg		115	70 - 130
Diesel Range Organics (Over C10-C28)	1000	940.9		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: LCSD 880-1378/3-A

Matrix: Solid

Analysis Batch: 1362

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1378

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1181		mg/Kg		118	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	934.7		mg/Kg		93	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: MB 880-1401/1-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1401

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 10:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 10:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 10:39	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 16:11	04/07/21 10:39	1

Eurofins Xenco, Carlsbad



## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	04/06/21 16:11	04/07/21 10:39	1
o-Terphenyl	131	S1+	70 - 130	04/06/21 16:11	04/07/21 10:39	1

Lab Sample ID: LCS 880-1401/2-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1126		mg/Kg		113	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1130		mg/Kg		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: LCSD 880-1401/3-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1401

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1169		mg/Kg		117	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1196		mg/Kg		120	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 890-443-1 MS

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1401

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1323	F1	mg/Kg		133	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	1309		mg/Kg		129	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: 890-443-1 MSD

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1401

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	997	1341	F1	mg/Kg		135	70 - 130	1	20

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: 890-443-1 MSD

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1401

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	1320	F1	mg/Kg		131	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	105		70 - 130								

Lab Sample ID: MB 880-1471/1-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 20:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 20:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 20:20	1
Total TPH	<50.0	U	50.0		mg/Kg		04/07/21 15:02	04/07/21 20:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130				04/07/21 15:02	04/07/21 20:20	1
o-Terphenyl	129		70 - 130				04/07/21 15:02	04/07/21 20:20	1

Lab Sample ID: LCS 880-1471/2-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1142		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1176		mg/Kg		118	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	111		70 - 130						
o-Terphenyl	117		70 - 130						

Lab Sample ID: LCSD 880-1471/3-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1471

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1227		mg/Kg		123	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	1225		mg/Kg		123	70 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	119		70 - 130						

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-1471/3-A

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1471

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	119		70 - 130

Lab Sample ID: 890-443-2 MS

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: FS02

Prep Type: Total/NA

Prep Batch: 1471

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1222		mg/Kg		121	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1262		mg/Kg		126	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	108		70 - 130							
<i>o</i> -Terphenyl	109		70 - 130							

Lab Sample ID: 890-443-2 MSD

Matrix: Solid

Analysis Batch: 1417

Client Sample ID: FS02

Prep Type: Total/NA

Prep Batch: 1471

	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	998	1189		mg/Kg		118	70 - 130	3	20	
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1202		mg/Kg		120	70 - 130	5	20	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	104		70 - 130									
<i>o</i> -Terphenyl	101		70 - 130									

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1521/1-A

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00		mg/Kg			04/08/21 17:31	1	

Lab Sample ID: LCS 880-1521/2-A

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS						%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	253.4		mg/Kg		101	90 - 110			

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-1521/3-A

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.1		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-443-1 MS

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	545		252	799.9		mg/Kg		101	90 - 110		

Lab Sample ID: 890-443-1 MSD

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	545		252	789.4		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-443-11 MS

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: FS11

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	174	F1	250	1482	F1	mg/Kg		523	90 - 110		

Lab Sample ID: 890-443-11 MSD

Matrix: Solid

Analysis Batch: 1548

Client Sample ID: FS11

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	174	F1	250	1452	F1	mg/Kg		511	90 - 110	2	20

Lab Sample ID: MB 880-1542/1-A

Matrix: Solid

Analysis Batch: 1625

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/11/21 17:55	1

Lab Sample ID: LCS 880-1542/2-A

Matrix: Solid

Analysis Batch: 1625

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.2		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-1542/3-A

Matrix: Solid

Analysis Batch: 1625

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.1		mg/Kg		98	90 - 110	4	20

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## GC VOA

## Prep Batch: 1434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-1	FS01	Total/NA	Solid	5035	
MB 880-1434/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1434/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1434/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-443-1 MS	FS01	Total/NA	Solid	5035	
890-443-1 MSD	FS01	Total/NA	Solid	5035	

## Analysis Batch: 1437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-1	FS01	Total/NA	Solid	8021B	1434
MB 880-1434/5-A	Method Blank	Total/NA	Solid	8021B	1434
LCS 880-1434/1-A	Lab Control Sample	Total/NA	Solid	8021B	1434
LCSD 880-1434/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1434
890-443-1 MS	FS01	Total/NA	Solid	8021B	1434
890-443-1 MSD	FS01	Total/NA	Solid	8021B	1434

## Prep Batch: 1443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-2	FS02	Total/NA	Solid	5035	
890-443-3	FS03	Total/NA	Solid	5035	
890-443-4	FS04	Total/NA	Solid	5035	
890-443-5	FS05	Total/NA	Solid	5035	
890-443-6	FS06	Total/NA	Solid	5035	
890-443-7	FS07	Total/NA	Solid	5035	
890-443-8	FS08	Total/NA	Solid	5035	
890-443-13	FS13	Total/NA	Solid	5035	
890-443-14	FS14	Total/NA	Solid	5035	
890-443-15	FS15	Total/NA	Solid	5035	
890-443-16	FS16	Total/NA	Solid	5035	
890-443-17	FS17	Total/NA	Solid	5035	
890-443-18	FS18	Total/NA	Solid	5035	
890-443-19	FS19	Total/NA	Solid	5035	
890-443-20	FS20	Total/NA	Solid	5035	
890-443-21	FS21	Total/NA	Solid	5035	
MB 880-1443/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1443/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1443/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-443-21 MS	FS21	Total/NA	Solid	5035	
890-443-21 MSD	FS21	Total/NA	Solid	5035	

## Analysis Batch: 1444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-2	FS02	Total/NA	Solid	8021B	1443
890-443-3	FS03	Total/NA	Solid	8021B	1443
890-443-4	FS04	Total/NA	Solid	8021B	1443
890-443-5	FS05	Total/NA	Solid	8021B	1443
890-443-6	FS06	Total/NA	Solid	8021B	1443
890-443-7	FS07	Total/NA	Solid	8021B	1443
890-443-8	FS08	Total/NA	Solid	8021B	1443
890-443-13	FS13	Total/NA	Solid	8021B	1443
890-443-14	FS14	Total/NA	Solid	8021B	1443

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## GC VOA (Continued)

## Analysis Batch: 1444 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-15	FS15	Total/NA	Solid	8021B	1443
890-443-16	FS16	Total/NA	Solid	8021B	1443
890-443-17	FS17	Total/NA	Solid	8021B	1443
890-443-18	FS18	Total/NA	Solid	8021B	1443
890-443-19	FS19	Total/NA	Solid	8021B	1443
890-443-20	FS20	Total/NA	Solid	8021B	1443
890-443-21	FS21	Total/NA	Solid	8021B	1443
MB 880-1443/5-A	Method Blank	Total/NA	Solid	8021B	1443
LCS 880-1443/1-A	Lab Control Sample	Total/NA	Solid	8021B	1443
LCSD 880-1443/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1443
890-443-21 MS	FS21	Total/NA	Solid	8021B	1443
890-443-21 MSD	FS21	Total/NA	Solid	8021B	1443

## Prep Batch: 1506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-9	FS09	Total/NA	Solid	5035	
890-443-10	FS10	Total/NA	Solid	5035	
890-443-11	FS11	Total/NA	Solid	5035	
890-443-12	FS12	Total/NA	Solid	5035	
MB 880-1506/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1506/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1506/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 1508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-9	FS09	Total/NA	Solid	8021B	1506
890-443-10	FS10	Total/NA	Solid	8021B	1506
890-443-11	FS11	Total/NA	Solid	8021B	1506
890-443-12	FS12	Total/NA	Solid	8021B	1506
MB 880-1506/5-A	Method Blank	Total/NA	Solid	8021B	1506
LCS 880-1506/1-A	Lab Control Sample	Total/NA	Solid	8021B	1506
LCSD 880-1506/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1506

## GC Semi VOA

## Analysis Batch: 1362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-21	FS21	Total/NA	Solid	8015B NM	1378
MB 880-1378/1-A	Method Blank	Total/NA	Solid	8015B NM	1378
LCS 880-1378/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1378
LCSD 880-1378/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1378

## Prep Batch: 1378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-21	FS21	Total/NA	Solid	8015NM Prep	
MB 880-1378/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1378/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1378/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## GC Semi VOA

## Prep Batch: 1401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-1	FS01	Total/NA	Solid	8015NM Prep	
890-443-11	FS11	Total/NA	Solid	8015NM Prep	
890-443-12	FS12	Total/NA	Solid	8015NM Prep	
890-443-13	FS13	Total/NA	Solid	8015NM Prep	
890-443-14	FS14	Total/NA	Solid	8015NM Prep	
890-443-15	FS15	Total/NA	Solid	8015NM Prep	
890-443-16	FS16	Total/NA	Solid	8015NM Prep	
890-443-17	FS17	Total/NA	Solid	8015NM Prep	
890-443-18	FS18	Total/NA	Solid	8015NM Prep	
890-443-19	FS19	Total/NA	Solid	8015NM Prep	
890-443-20	FS20	Total/NA	Solid	8015NM Prep	
MB 880-1401/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1401/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1401/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-443-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-443-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 1417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-1	FS01	Total/NA	Solid	8015B NM	1401
890-443-2	FS02	Total/NA	Solid	8015B NM	1471
890-443-3	FS03	Total/NA	Solid	8015B NM	1471
890-443-4	FS04	Total/NA	Solid	8015B NM	1471
890-443-5	FS05	Total/NA	Solid	8015B NM	1471
890-443-6	FS06	Total/NA	Solid	8015B NM	1471
890-443-7	FS07	Total/NA	Solid	8015B NM	1471
890-443-8	FS08	Total/NA	Solid	8015B NM	1471
890-443-9	FS09	Total/NA	Solid	8015B NM	1471
890-443-10	FS10	Total/NA	Solid	8015B NM	1471
890-443-11	FS11	Total/NA	Solid	8015B NM	1401
890-443-12	FS12	Total/NA	Solid	8015B NM	1401
890-443-13	FS13	Total/NA	Solid	8015B NM	1401
890-443-14	FS14	Total/NA	Solid	8015B NM	1401
890-443-15	FS15	Total/NA	Solid	8015B NM	1401
890-443-16	FS16	Total/NA	Solid	8015B NM	1401
890-443-17	FS17	Total/NA	Solid	8015B NM	1401
890-443-18	FS18	Total/NA	Solid	8015B NM	1401
890-443-19	FS19	Total/NA	Solid	8015B NM	1401
890-443-20	FS20	Total/NA	Solid	8015B NM	1401
MB 880-1401/1-A	Method Blank	Total/NA	Solid	8015B NM	1401
MB 880-1471/1-A	Method Blank	Total/NA	Solid	8015B NM	1471
LCS 880-1401/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1401
LCS 880-1471/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1471
LCSD 880-1401/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1401
LCSD 880-1471/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1471
890-443-1 MS	FS01	Total/NA	Solid	8015B NM	1401
890-443-1 MSD	FS01	Total/NA	Solid	8015B NM	1401
890-443-2 MS	FS02	Total/NA	Solid	8015B NM	1471
890-443-2 MSD	FS02	Total/NA	Solid	8015B NM	1471

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## GC Semi VOA

## Prep Batch: 1471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-2	FS02	Total/NA	Solid	8015NM Prep	
890-443-3	FS03	Total/NA	Solid	8015NM Prep	
890-443-4	FS04	Total/NA	Solid	8015NM Prep	
890-443-5	FS05	Total/NA	Solid	8015NM Prep	
890-443-6	FS06	Total/NA	Solid	8015NM Prep	
890-443-7	FS07	Total/NA	Solid	8015NM Prep	
890-443-8	FS08	Total/NA	Solid	8015NM Prep	
890-443-9	FS09	Total/NA	Solid	8015NM Prep	
890-443-10	FS10	Total/NA	Solid	8015NM Prep	
MB 880-1471/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1471/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1471/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-443-2 MS	FS02	Total/NA	Solid	8015NM Prep	
890-443-2 MSD	FS02	Total/NA	Solid	8015NM Prep	

## HPLC/IC

## Leach Batch: 1521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-1	FS01	Soluble	Solid	DI Leach	
890-443-2	FS02	Soluble	Solid	DI Leach	
890-443-3	FS03	Soluble	Solid	DI Leach	
890-443-4	FS04	Soluble	Solid	DI Leach	
890-443-5	FS05	Soluble	Solid	DI Leach	
890-443-6	FS06	Soluble	Solid	DI Leach	
890-443-7	FS07	Soluble	Solid	DI Leach	
890-443-8	FS08	Soluble	Solid	DI Leach	
890-443-9	FS09	Soluble	Solid	DI Leach	
890-443-10	FS10	Soluble	Solid	DI Leach	
890-443-11	FS11	Soluble	Solid	DI Leach	
890-443-12	FS12	Soluble	Solid	DI Leach	
890-443-13	FS13	Soluble	Solid	DI Leach	
890-443-14	FS14	Soluble	Solid	DI Leach	
890-443-15	FS15	Soluble	Solid	DI Leach	
890-443-16	FS16	Soluble	Solid	DI Leach	
890-443-17	FS17	Soluble	Solid	DI Leach	
890-443-19	FS19	Soluble	Solid	DI Leach	
890-443-20	FS20	Soluble	Solid	DI Leach	
MB 880-1521/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1521/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1521/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-443-1 MS	FS01	Soluble	Solid	DI Leach	
890-443-1 MSD	FS01	Soluble	Solid	DI Leach	
890-443-11 MS	FS11	Soluble	Solid	DI Leach	
890-443-11 MSD	FS11	Soluble	Solid	DI Leach	

## Leach Batch: 1542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-18	FS18	Soluble	Solid	DI Leach	
890-443-21	FS21	Soluble	Solid	DI Leach	
MB 880-1542/1-A	Method Blank	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## HPLC/IC (Continued)

## Leach Batch: 1542 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-1542/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1542/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 1548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-1	FS01	Soluble	Solid	300.0	1521
890-443-2	FS02	Soluble	Solid	300.0	1521
890-443-3	FS03	Soluble	Solid	300.0	1521
890-443-4	FS04	Soluble	Solid	300.0	1521
890-443-5	FS05	Soluble	Solid	300.0	1521
890-443-6	FS06	Soluble	Solid	300.0	1521
890-443-7	FS07	Soluble	Solid	300.0	1521
890-443-8	FS08	Soluble	Solid	300.0	1521
890-443-9	FS09	Soluble	Solid	300.0	1521
890-443-10	FS10	Soluble	Solid	300.0	1521
890-443-11	FS11	Soluble	Solid	300.0	1521
890-443-12	FS12	Soluble	Solid	300.0	1521
890-443-13	FS13	Soluble	Solid	300.0	1521
890-443-14	FS14	Soluble	Solid	300.0	1521
890-443-15	FS15	Soluble	Solid	300.0	1521
890-443-16	FS16	Soluble	Solid	300.0	1521
890-443-17	FS17	Soluble	Solid	300.0	1521
890-443-19	FS19	Soluble	Solid	300.0	1521
890-443-20	FS20	Soluble	Solid	300.0	1521
MB 880-1521/1-A	Method Blank	Soluble	Solid	300.0	1521
LCS 880-1521/2-A	Lab Control Sample	Soluble	Solid	300.0	1521
LCSD 880-1521/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1521
890-443-1 MS	FS01	Soluble	Solid	300.0	1521
890-443-1 MSD	FS01	Soluble	Solid	300.0	1521
890-443-11 MS	FS11	Soluble	Solid	300.0	1521
890-443-11 MSD	FS11	Soluble	Solid	300.0	1521

## Analysis Batch: 1625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-443-18	FS18	Soluble	Solid	300.0	1542
890-443-21	FS21	Soluble	Solid	300.0	1542
MB 880-1542/1-A	Method Blank	Soluble	Solid	300.0	1542
LCS 880-1542/2-A	Lab Control Sample	Soluble	Solid	300.0	1542
LCSD 880-1542/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1542

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## Client Sample ID: FS01

## Lab Sample ID: 890-443-1

Date Collected: 03/25/21 15:35

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1434	04/07/21 11:05	MR	XM
Total/NA	Analysis	8021B		1	1437	04/07/21 19:12	KL	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 11:43	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 17:48	CH	XM

## Client Sample ID: FS02

## Lab Sample ID: 890-443-2

Date Collected: 03/25/21 15:45

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 16:34	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 21:24	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 18:04	CH	XM

## Client Sample ID: FS03

## Lab Sample ID: 890-443-3

Date Collected: 03/25/21 12:48

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 16:54	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 22:28	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 18:10	CH	XM

## Client Sample ID: FS04

## Lab Sample ID: 890-443-4

Date Collected: 03/25/21 12:50

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 17:15	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 22:49	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 18:15	CH	XM

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## Client Sample ID: FS05

## Lab Sample ID: 890-443-5

Date Collected: 03/25/21 12:56

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 17:35	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 23:11	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 18:21	CH	XM

## Client Sample ID: FS06

## Lab Sample ID: 890-443-6

Date Collected: 03/25/21 13:00

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 17:56	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 23:33	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 18:37	CH	XM

## Client Sample ID: FS07

## Lab Sample ID: 890-443-7

Date Collected: 03/25/21 13:05

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 18:16	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 23:53	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 18:43	CH	XM

## Client Sample ID: FS08

## Lab Sample ID: 890-443-8

Date Collected: 03/25/21 13:10

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 18:37	MR	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/08/21 00:15	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 18:48	CH	XM

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS09

Lab Sample ID: 890-443-9

Date Collected: 03/25/21 13:12

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 17:04	AJ	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/08/21 00:36	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 18:54	CH	XM

Client Sample ID: FS10

Lab Sample ID: 890-443-10

Date Collected: 03/25/21 13:15

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 17:30	AJ	XM
Total/NA	Prep	8015NM Prep			1471	04/07/21 15:02	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/08/21 00:57	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 18:59	CH	XM

Client Sample ID: FS11

Lab Sample ID: 890-443-11

Date Collected: 03/25/21 13:20

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 17:55	AJ	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 16:19	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 19:05	CH	XM

Client Sample ID: FS12

Lab Sample ID: 890-443-12

Date Collected: 03/25/21 13:22

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 18:20	AJ	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 16:40	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 19:22	CH	XM

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

## Client Sample ID: FS13

## Lab Sample ID: 890-443-13

Date Collected: 03/25/21 13:27

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 21:49	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 17:01	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		5	1548	04/08/21 19:27	CH	XM

## Client Sample ID: FS14

## Lab Sample ID: 890-443-14

Date Collected: 03/25/21 14:26

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 22:09	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 17:22	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 19:44	CH	XM

## Client Sample ID: FS15

## Lab Sample ID: 890-443-15

Date Collected: 03/25/21 14:28

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 22:29	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 17:43	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 19:49	CH	XM

## Client Sample ID: FS16

## Lab Sample ID: 890-443-16

Date Collected: 03/25/21 14:30

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 22:50	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 18:11	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 19:55	CH	XM

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS17

Lab Sample ID: 890-443-17

Date Collected: 03/25/21 14:35

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 23:10	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 18:33	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 20:00	CH	XM

Client Sample ID: FS18

Lab Sample ID: 890-443-18

Date Collected: 03/26/21 13:10

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 23:31	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 18:54	AJ	XM
Soluble	Leach	DI Leach			1542	04/08/21 15:27	SC	XM
Soluble	Analysis	300.0		1	1625	04/11/21 20:03	CH	XM

Client Sample ID: FS19

Lab Sample ID: 890-443-19

Date Collected: 03/25/21 14:55

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 23:51	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 19:16	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 20:06	CH	XM

Client Sample ID: FS20

Lab Sample ID: 890-443-20

Date Collected: 03/25/21 14:57

Matrix: Solid

Date Received: 03/26/21 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/08/21 00:11	MR	XM
Total/NA	Prep	8015NM Prep			1401	04/06/21 16:11	DM	XM
Total/NA	Analysis	8015B NM		1	1417	04/07/21 19:37	AJ	XM
Soluble	Leach	DI Leach			1521	04/08/21 12:04	SC	XM
Soluble	Analysis	300.0		1	1548	04/08/21 20:11	CH	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Client Sample ID: FS21  
Date Collected: 03/25/21 15:00  
Date Received: 03/26/21 16:47

Lab Sample ID: 890-443-21  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1443	04/07/21 12:13	MR	XM
Total/NA	Analysis	8021B		1	1444	04/07/21 16:14	MR	XM
Total/NA	Prep	8015NM Prep			1378	04/06/21 13:35	DM	XM
Total/NA	Analysis	8015B NM		1	1362	04/07/21 03:30	AJ	XM
Soluble	Leach	DI Leach			1542	04/08/21 15:27	SC	XM
Soluble	Analysis	300.0		1	1625	04/11/21 20:22	CH	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

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

**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.

**Laboratory References:**

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

## Sample Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-443-1  
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-443-1	FS01	Solid	03/25/21 15:35	03/26/21 16:47	1 - 3
890-443-2	FS02	Solid	03/25/21 15:45	03/26/21 16:47	2 - 3
890-443-3	FS03	Solid	03/25/21 12:48	03/26/21 16:47	- 1
890-443-4	FS04	Solid	03/25/21 12:50	03/26/21 16:47	- 1
890-443-5	FS05	Solid	03/25/21 12:56	03/26/21 16:47	- 1
890-443-6	FS06	Solid	03/25/21 13:00	03/26/21 16:47	- 1
890-443-7	FS07	Solid	03/25/21 13:05	03/26/21 16:47	- 1
890-443-8	FS08	Solid	03/25/21 13:10	03/26/21 16:47	- 1
890-443-9	FS09	Solid	03/25/21 13:12	03/26/21 16:47	- 1
890-443-10	FS10	Solid	03/25/21 13:15	03/26/21 16:47	- 1
890-443-11	FS11	Solid	03/25/21 13:20	03/26/21 16:47	- 1
890-443-12	FS12	Solid	03/25/21 13:22	03/26/21 16:47	- 1
890-443-13	FS13	Solid	03/25/21 13:27	03/26/21 16:47	- 1
890-443-14	FS14	Solid	03/25/21 14:26	03/26/21 16:47	- 1
890-443-15	FS15	Solid	03/25/21 14:28	03/26/21 16:47	- 1
890-443-16	FS16	Solid	03/25/21 14:30	03/26/21 16:47	- 1
890-443-17	FS17	Solid	03/25/21 14:35	03/26/21 16:47	- 1
890-443-18	FS18	Solid	03/26/21 13:10	03/26/21 16:47	1 - 2
890-443-19	FS19	Solid	03/25/21 14:55	03/26/21 16:47	
890-443-20	FS20	Solid	03/25/21 14:57	03/26/21 16:47	
890-443-21	FS21	Solid	03/25/21 15:00	03/26/21 16:47	



## Chain of Custody

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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crystal Lake, IL (815) 432-704-5440  
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	JOSEPH HELEANDER	Bill to: (if different)	JIM EMMERY
Company Name:	USP USA	Company Name:	WQX
Address:	3348 N A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad, NM 88222
Phone:	(817) 762-2329	Email:	jheleander@usp.com annabeyes@usp.com

Program: <input type="checkbox"/> PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:
Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Longview 31-1	Turn Around	
Project Number:	TE834821010	Routine	<input checked="" type="checkbox"/>
Project Location:	Edley County	Rush:	
Sampler's Name:	Anna Beyes	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	2.4/2.2			Thermometer ID:	LUM-007	
Received intact:	Yes	No			Correction Factor:	-0.2
Cooler Custody Seals:	Yes	No			Total Containers:	
Sample Custody Seals:	Yes	No				

ANALYSIS REQUEST
TPH (EPA 815 Mod)
BTEX (EPA 821 B)
Chloride (EPA 344.6)

Preservative Codes
MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn
TAT starts the day received by the lab. If received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Sample Comments
ES01		S	3/6/21	1535	1-3'	1	
ES02				1545	2-3'	1	
ES03				1248	1'	1	
ES04				1250	1'	1	
ES05				1256	1'	1	
ES06				1304	1'	1	
ES07				1305	1'	1	
ES08				1310	1'	1	
ES09				1312	1'	1	
ES10				1315	1'	1	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 entered into the previous signature.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
James R.	Joe Cuffe	3-26-21 11:57			

Revised Date 02/26/19 Rev. 2015 1





Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
Midland, TX (432) 704-5440 El Paso, TX (915) 585-2443 Lubbock, TX (806) 794-1256 Crandall, NM (432) 704-5440  
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Work Order No: \_\_\_\_\_

Page 2 of 3

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## Chain of Custody

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Bailey
Company Name:	WSP USA	Company Name:	WPR
Address:	3300 N A St	Address:	5315 Brecken Vista Dr
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Fort Stockard, DUN 88226
Phone:	(817) 792-2829	Email:	joe.hernandez@wsp.com

<b>Work Order Comments</b> Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:
--

Project Name:		Longview 31-1		Turn Around	
Project Number:		TEP34821466		Routine <input checked="" type="checkbox"/>	
Project Location		Eddy County		Rush:	
Sampler's Name:		Anna Byers		Due Date:	
PO #:				Quote #:	
SAMPLE RECEIPT		Temp Blank:		Yes No Wet Ice: Yes No	
Temperature (°C):				Hydrometer ID	
Received intact:		Yes No		<input checked="" type="checkbox"/>	
Cooler Custody Seals:		<del>Yes No</del>		Correction Factor:	
Sample Custody Seals:		Yes No N/A		Total Containers:	
Preservative Codes					
MeOH: Me					
None: NO					
HNO3: HN					
H2SO4: H2					
HCL: HL					
NaOH: Na					
Zn Acetate+ NaOH: Zn					
TAT starts the day received by the lab, it received by 4.00pm					



Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH	BTE	Chl	Sample Comments
FS11		S	3/25/21	1320	1'	1				
FS12				1322	1'	1				
FS13				1327	1'	1				
FS14				1420 1426 1430	1'	1				
FS15				1428	1'	1				
FS16				1430	1'	1				
FS17				1435	1'	1				
FS18			3/26/21	1310	1-2'	1				
FS19			3/25/21	1455	1'	1				
FS20			3/25/21	1457	1'	1				

X

AZ  
Sample 5  
Sample 4  
Sample 3

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Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> 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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		3.26.21 1645	2		
3			4		
5			6		

Revised Date 022619 Rev 2019





Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440 EL Paso, TX (915) 385-3443 Lubbock, TX (806) 794-1296  
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

## Chain of Custody

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

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Page 2 of 3

4/12/2021

Project Manager: JOSEPH HERNANDEZ		Bill to: (if different) JIM PAREY	
Company Name: WSP USA		Company Name: WSP	
Address: 3300 N A ST		Address: 5315 BUENAVISTA DR	
City, State ZIP: Midland TX, 79705		City, State ZIP: CARLSBAD, NM 88220	
Phone: (281) 762-2329		Email: jhernandez@wsp.com	
Project Name: Longview 31-1		Turn Around: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/>	
Project Number: TEP34821000		Routine: <input checked="" type="checkbox"/>	
Project Location: Eddy County		Rush: <input type="checkbox"/>	
Sampler's Name: Anna Biggs		Due Date: <input type="checkbox"/>	
PO #: <input type="checkbox"/>		Quote #: <input type="checkbox"/>	

SAMPLE RECEIPT				ANALYSIS REQUEST				PRESERVATIVE CODES	
Temperature (°C):	Temp Blank:	Yes	No	Thermometer ID	Yes	No	MeOH: Me		
Received Intact:	Yes	No	See TR 1				None: NO		
Cooler Custody Seals:	Yes	No					HNO3: HN		
Sample Custody Seals:	Yes	No					H2SO4: H2		
							HCL: HL		
							NaOH: Na		
							Zn Acetate + NaOH: Zn		
							TAT starts the day received by the lab, if received by 4:00pm		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Analysis Request	Preservative Codes	Sample Comments
ES21		S	8/25/21	15:00	1'	1	<input checked="" type="checkbox"/> TPH (EPA 8015 Mod) <input checked="" type="checkbox"/> BTEX (EPA 8021 B) <input checked="" type="checkbox"/> Chloride (EPA 300.0)		TPD

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anna Biggs	Joe Biggs	8/20/21 10:42			

Revised Date 02/26/19 Rev. 2019.1

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-443-1

SDG Number: Eddy County NM

Login Number: 443

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: 890-443-1

SDG Number: Eddy County NM

Login Number: 443

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 04/06/21 07:56 AM

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-452-1

Laboratory Sample Delivery Group: Eddy County  
Client Project/Site: Longview 31-1  
Revision: 2

**For:**

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

Attn: Joseph Hernandez

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

Authorized for release by:  
4/29/2021 10:05:21 AM

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

#### LINKS

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results through  
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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: Longview 31-1

Laboratory Job ID: 890-452-1  
SDG: Eddy County

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

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## Case Narrative

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

### Job ID: 890-452-1

### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

#### Job Narrative 890-452-1

#### Comments

No additional comments.

#### Revision

The report being provided is a revision of the original report sent on 4/20/2021. The report (revision 1) is being revised due to: Per Client request - re run chloride on sample FS23 and TPH for sample FS24.

#### Receipt

The samples were received on 3/30/2021 8:57 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.2° C.

#### Receipt Exceptions

Per Client request - re run chloride on sample FS23 and TPH for sample FS24

#### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS26 (890-452-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### GC Semi VOA

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

#### General Chemistry

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

#### Organic Prep

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

#### VOA Prep

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



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS22

Lab Sample ID: 890-452-1

Date Collected: 03/29/21 09:45

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: 1 - 1.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 18:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 18:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 18:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/06/21 11:00	04/06/21 18:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 18:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/06/21 11:00	04/06/21 18:42	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	04/06/21 11:00	04/06/21 18:42	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/06/21 11:00	04/06/21 18:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 14:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 14:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 14:05	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	04/03/21 13:15	04/04/21 14:05	1
o-Terphenyl	96		70 - 130	04/03/21 13:15	04/04/21 14:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.4		4.95		mg/Kg			04/19/21 21:41	1

Client Sample ID: FS23

Lab Sample ID: 890-452-2

Date Collected: 03/29/21 13:45

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/06/21 11:00	04/06/21 19:03	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/06/21 11:00	04/06/21 19:03	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/06/21 11:00	04/06/21 19:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/06/21 11:00	04/06/21 19:03	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/06/21 11:00	04/06/21 19:03	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/06/21 11:00	04/06/21 19:03	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		04/06/21 11:00	04/06/21 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/06/21 11:00	04/06/21 19:03	1
1,4-Difluorobenzene (Surr)	113		70 - 130	04/06/21 11:00	04/06/21 19:03	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS23

Lab Sample ID: 890-452-2

Date Collected: 03/29/21 13:45

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:08	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	04/03/21 13:15	04/04/21 15:08	1
o-Terphenyl	107		70 - 130	04/03/21 13:15	04/04/21 15:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.1		4.99		mg/Kg			04/26/21 17:00	1

Client Sample ID: FS24

Lab Sample ID: 890-452-3

Date Collected: 03/29/21 13:50

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00391		0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:23	1
Toluene	0.00342		0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:23	1
m-Xylene & p-Xylene	0.00562		0.00401		mg/Kg		04/06/21 11:00	04/06/21 19:23	1
o-Xylene	0.00235		0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:23	1
Xylenes, Total	0.00797		0.00401		mg/Kg		04/06/21 11:00	04/06/21 19:23	1
Total BTEX	0.0153		0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	288	S1+	70 - 130	04/06/21 11:00	04/06/21 19:23	1
1,4-Difluorobenzene (Surr)	196	S1+	70 - 130	04/06/21 11:00	04/06/21 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:30	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 15:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	04/03/21 13:15	04/04/21 15:30	1
o-Terphenyl	119		70 - 130	04/03/21 13:15	04/04/21 15:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.1		4.95		mg/Kg			04/09/21 12:09	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS25

Lab Sample ID: 890-452-4

Date Collected: 03/29/21 13:40

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/06/21 11:00	04/06/21 19:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/06/21 11:00	04/06/21 19:44	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/06/21 11:00	04/06/21 19:44	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/06/21 11:00	04/06/21 19:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 15:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 15:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 15:52	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 15:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/03/21 13:15	04/04/21 15:52	1
o-Terphenyl	103		70 - 130	04/03/21 13:15	04/04/21 15:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	284		4.95		mg/Kg			04/09/21 12:15	1

Client Sample ID: FS27

Lab Sample ID: 890-452-5

Date Collected: 03/29/21 14:00

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: 2 - 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00290		0.00200		mg/Kg		04/07/21 09:26	04/07/21 13:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 13:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 13:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/07/21 09:26	04/07/21 13:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 13:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/07/21 09:26	04/07/21 13:26	1
Total BTEX	0.00290	B	0.00200		mg/Kg		04/07/21 09:26	04/07/21 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/07/21 09:26	04/07/21 13:26	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/07/21 09:26	04/07/21 13:26	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS27

Lab Sample ID: 890-452-5

Date Collected: 03/29/21 14:00

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: 2 - 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 16:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 16:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 16:13	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/03/21 13:15	04/04/21 16:13	1
o-Terphenyl	103		70 - 130	04/03/21 13:15	04/04/21 16:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	214		5.04		mg/Kg			04/15/21 21:55	1

Client Sample ID: FS26

Lab Sample ID: 890-452-6

Date Collected: 03/29/21 13:35

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 13:47	1
Toluene	0.00472		0.00199		mg/Kg		04/07/21 09:26	04/07/21 13:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 13:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/07/21 09:26	04/07/21 13:47	1
o-Xylene	0.00815	B	0.00199		mg/Kg		04/07/21 09:26	04/07/21 13:47	1
Xylenes, Total	0.00815		0.00398		mg/Kg		04/07/21 09:26	04/07/21 13:47	1
Total BTEX	0.0129	B	0.00199		mg/Kg		04/07/21 09:26	04/07/21 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130	04/07/21 09:26	04/07/21 13:47	1
1,4-Difluorobenzene (Surr)	65	S1-	70 - 130	04/07/21 09:26	04/07/21 13:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	59.2		49.9		mg/Kg		04/03/21 13:15	04/04/21 16:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 16:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 16:35	1
Total TPH	59.2		49.9		mg/Kg		04/03/21 13:15	04/04/21 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/03/21 13:15	04/04/21 16:35	1
o-Terphenyl	101		70 - 130	04/03/21 13:15	04/04/21 16:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	142		6.23		mg/Kg			04/15/21 22:00	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS28

Lab Sample ID: 890-452-7

Date Collected: 03/29/21 14:55

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 14:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 14:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 14:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/07/21 09:26	04/07/21 14:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 14:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/07/21 09:26	04/07/21 14:07	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/07/21 09:26	04/07/21 14:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	04/07/21 09:26	04/07/21 14:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/07/21 09:26	04/07/21 14:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U H	50.0		mg/Kg		04/26/21 08:55	04/26/21 16:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U H	50.0		mg/Kg		04/26/21 08:55	04/26/21 16:27	1
Oil Range Organics (Over C28-C36)	<50.0	U H	50.0		mg/Kg		04/26/21 08:55	04/26/21 16:27	1
Total TPH	<50.0	U H	50.0		mg/Kg		04/26/21 08:55	04/26/21 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	04/03/21 13:15	04/04/21 16:56	1
o-Terphenyl	108		70 - 130	04/03/21 13:15	04/04/21 16:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.0		5.03		mg/Kg			04/15/21 22:06	1

Client Sample ID: FS29

Lab Sample ID: 890-452-8

Date Collected: 03/29/21 14:28

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 14:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 14:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 14:28	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/07/21 09:26	04/07/21 14:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 14:28	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/07/21 09:26	04/07/21 14:28	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	04/07/21 09:26	04/07/21 14:28	1
1,4-Difluorobenzene (Surr)	112		70 - 130	04/07/21 09:26	04/07/21 14:28	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS29

Lab Sample ID: 890-452-8

Date Collected: 03/29/21 14:28

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/03/21 13:15	04/04/21 17:18	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/03/21 13:15	04/04/21 17:18	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/03/21 13:15	04/04/21 17:18	1
Total TPH	<49.8	U	49.8		mg/Kg		04/03/21 13:15	04/04/21 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	04/03/21 13:15	04/04/21 17:18	1
o-Terphenyl	93		70 - 130	04/03/21 13:15	04/04/21 17:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.5		5.03		mg/Kg			04/15/21 22:12	1

Client Sample ID: FS30

Lab Sample ID: 890-452-9

Date Collected: 03/29/21 14:25

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/07/21 09:26	04/07/21 14:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/07/21 09:26	04/07/21 14:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/07/21 09:26	04/07/21 14:49	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/07/21 09:26	04/07/21 14:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/07/21 09:26	04/07/21 14:49	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/07/21 09:26	04/07/21 14:49	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/07/21 09:26	04/07/21 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/07/21 09:26	04/07/21 14:49	1
1,4-Difluorobenzene (Surr)	110		70 - 130	04/07/21 09:26	04/07/21 14:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 17:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 17:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 17:40	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	04/03/21 13:15	04/04/21 17:40	1
o-Terphenyl	95		70 - 130	04/03/21 13:15	04/04/21 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.1		5.05		mg/Kg			04/15/21 22:17	1

Eurofins Xenco, Carlsbad



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: SW02

Lab Sample ID: 890-452-10

Date Collected: 03/29/21 09:20

Matrix: Solid

Date Received: 03/30/21 08:57

Sample Depth: 0 - 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/08/21 10:10	04/08/21 16:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:39	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/08/21 10:10	04/08/21 16:39	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	04/08/21 10:10	04/08/21 16:39	1
1,4-Difluorobenzene (Surr)	86		70 - 130	04/08/21 10:10	04/08/21 16:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 18:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 18:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 18:01	1
Total TPH	<49.9	U	49.9		mg/Kg		04/03/21 13:15	04/04/21 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/03/21 13:15	04/04/21 18:01	1
o-Terphenyl	95		70 - 130	04/03/21 13:15	04/04/21 18:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	73.6		5.04		mg/Kg			04/15/21 22:34	1

Eurofins Xenco, Carlsbad



## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-452-1	FS22	91	101
890-452-2	FS23	102	113
890-452-3	FS24	288 S1+	196 S1+
890-452-4	FS25	99	108
890-452-5	FS27	107	107
890-452-6	FS26	150 S1+	65 S1-
890-452-7	FS28	93	98
890-452-8	FS29	95	112
890-452-9	FS30	99	110
890-452-10	SW02	120	86
890-452-10 MS	SW02	113	105
890-452-10 MSD	SW02	111	102
LCS 880-1365/1-A	Lab Control Sample	93	109
LCS 880-1421/1-A	Lab Control Sample	88	104
LCS 880-1506/1-A	Lab Control Sample	101	96
LCSD 880-1365/2-A	Lab Control Sample Dup	104	108
LCSD 880-1421/2-A	Lab Control Sample Dup	92	106
LCSD 880-1506/2-A	Lab Control Sample Dup	110	112
MB 880-1365/5-A	Method Blank	110	98
MB 880-1421/5-A	Method Blank	112	94
MB 880-1506/5-A	Method Blank	75	83

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-452-1	FS22	95	96
890-452-1 MS	FS22	107	99
890-452-1 MSD	FS22	106	97
890-452-2	FS23	105	107
890-452-3	FS24	120	119
890-452-4	FS25	101	103
890-452-5	FS27	101	103
890-452-6	FS26	100	101
890-452-7	FS28	111	108
890-452-8	FS29	93	93
890-452-9	FS30	94	95
890-452-10	SW02	97	95
LCS 880-1281/2-A	Lab Control Sample	122	119
LCS 880-2316/2-A	Lab Control Sample	98	101
LCSD 880-1281/3-A	Lab Control Sample Dup	116	115
LCSD 880-2316/3-A	Lab Control Sample Dup	97	100
MB 880-1281/1-A	Method Blank	98	102
MB 880-2316/1-A	Method Blank	88	99

Eurofins Xenco, Carlsbad

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

**Surrogate Legend**  
1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

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

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: MB 880-1365/5-A

Matrix: Solid

Analysis Batch: 1367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1365

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 13:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 13:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 13:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/06/21 11:00	04/06/21 13:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 13:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/06/21 11:00	04/06/21 13:28	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/06/21 11:00	04/06/21 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	04/06/21 11:00	04/06/21 13:28	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/06/21 11:00	04/06/21 13:28	1

Lab Sample ID: LCS 880-1365/1-A

Matrix: Solid

Analysis Batch: 1367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1365

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08786		mg/Kg		88	70 - 130
Toluene	0.100	0.09506		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.08930		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1900		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09434		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-1365/2-A

Matrix: Solid

Analysis Batch: 1367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1365

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09986		mg/Kg		100	70 - 130	13	35
Toluene	0.100	0.1073		mg/Kg		107	70 - 130	12	35
Ethylbenzene	0.100	0.1087		mg/Kg		109	70 - 130	20	35
m-Xylene & p-Xylene	0.200	0.2189		mg/Kg		109	70 - 130	14	35
o-Xylene	0.100	0.1146		mg/Kg		115	70 - 130	19	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: MB 880-1421/5-A

Matrix: Solid

Analysis Batch: 1428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 11:43	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: MB 880-1421/5-A

Matrix: Solid

Analysis Batch: 1428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 11:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 09:26	04/07/21 11:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/07/21 09:26	04/07/21 11:43	1
o-Xylene	0.002127		0.00200		mg/Kg		04/07/21 09:26	04/07/21 11:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/07/21 09:26	04/07/21 11:43	1
Total BTEX	0.002127		0.00200		mg/Kg		04/07/21 09:26	04/07/21 11:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	04/07/21 09:26	04/07/21 11:43	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/07/21 09:26	04/07/21 11:43	1

Lab Sample ID: LCS 880-1421/1-A

Matrix: Solid

Analysis Batch: 1428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07756		mg/Kg		78	70 - 130
Toluene	0.100	0.08327		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.08557		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1696		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08357		mg/Kg		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-1421/2-A

Matrix: Solid

Analysis Batch: 1428

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1421

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07595		mg/Kg		76	70 - 130	2	35
Toluene	0.100	0.08182		mg/Kg		82	70 - 130	2	35
Ethylbenzene	0.100	0.08503		mg/Kg		85	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1683		mg/Kg		84	70 - 130	1	35
o-Xylene	0.100	0.08319		mg/Kg		83	70 - 130	0	35

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

Lab Sample ID: MB 880-1506/5-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1506

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: MB 880-1506/5-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1506

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/08/21 10:10	04/08/21 16:14	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 10:10	04/08/21 16:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	04/08/21 10:10	04/08/21 16:14	1
1,4-Difluorobenzene (Surr)	83		70 - 130	04/08/21 10:10	04/08/21 16:14	1

Lab Sample ID: LCS 880-1506/1-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1506

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1038		mg/Kg		104	70 - 130
Toluene	0.100	0.1129		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2152		mg/Kg		108	70 - 130
o-Xylene	0.100	0.1146		mg/Kg		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-1506/2-A

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1506

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1103		mg/Kg		110	70 - 130	6	35
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	7	35
Ethylbenzene	0.100	0.1110		mg/Kg		111	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2278		mg/Kg		114	70 - 130	6	35
o-Xylene	0.100	0.1231		mg/Kg		123	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-452-10 MS

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: SW02

Prep Type: Total/NA

Prep Batch: 1506

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0998	0.09460		mg/Kg		95	70 - 130
Toluene	<0.00200	U	0.0998	0.1055		mg/Kg		106	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.09655		mg/Kg		97	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: 890-452-10 MS

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: SW02

Prep Type: Total/NA

Prep Batch: 1506

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1970		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U	0.0998	0.1052		mg/Kg		105	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	113		70 - 130						
1,4-Difluorobenzene (Surr)	105		70 - 130						

Lab Sample ID: 890-452-10 MSD

Matrix: Solid

Analysis Batch: 1508

Client Sample ID: SW02

Prep Type: Total/NA

Prep Batch: 1506

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.09146		mg/Kg		92	70 - 130	3	35
Toluene	<0.00200	U	0.0996	0.1039		mg/Kg		104	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.0996	0.09774		mg/Kg		98	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1986		mg/Kg		100	70 - 130	1	35
o-Xylene	<0.00200	U	0.0996	0.1061		mg/Kg		107	70 - 130	1	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	111		70 - 130								
1,4-Difluorobenzene (Surr)	102		70 - 130								

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

Lab Sample ID: MB 880-1281/1-A

Matrix: Solid

Analysis Batch: 1291

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1281

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 13:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 13:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 13:01	1
Total TPH	<50.0	U	50.0		mg/Kg		04/03/21 13:15	04/04/21 13:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				04/03/21 13:15	04/04/21 13:01	1
o-Terphenyl	102		70 - 130				04/03/21 13:15	04/04/21 13:01	1

Lab Sample ID: LCS 880-1281/2-A

Matrix: Solid

Analysis Batch: 1291

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1281

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1124		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	931.9		mg/Kg		93	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: LCS 880-1281/2-A

Matrix: Solid

Analysis Batch: 1291

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1281

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-1281/3-A

Matrix: Solid

Analysis Batch: 1291

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1281

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1039		mg/Kg		104	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	970.9		mg/Kg		97	70 - 130	4	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 890-452-1 MS

Matrix: Solid

Analysis Batch: 1291

Client Sample ID: FS22

Prep Type: Total/NA

Prep Batch: 1281

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1020		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	972.0		mg/Kg		96	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-452-1 MSD

Matrix: Solid

Analysis Batch: 1291

Client Sample ID: FS22

Prep Type: Total/NA

Prep Batch: 1281

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1033		mg/Kg		99	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	962.1		mg/Kg		95	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	97		70 - 130

Eurofins Xenco, Carlsbad



## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: MB 880-2316/1-A

Matrix: Solid

Analysis Batch: 2308

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2316

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/26/21 08:55	04/26/21 10:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/26/21 08:55	04/26/21 10:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/26/21 08:55	04/26/21 10:40	1
Total TPH	<50.0	U	50.0		mg/Kg		04/26/21 08:55	04/26/21 10:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	04/26/21 08:55	04/26/21 10:40	1
o-Terphenyl	99		70 - 130	04/26/21 08:55	04/26/21 10:40	1

Lab Sample ID: LCS 880-2316/2-A

Matrix: Solid

Analysis Batch: 2308

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2316

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	995.7		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	942.9		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-2316/3-A

Matrix: Solid

Analysis Batch: 2308

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2316

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	995.1		mg/Kg		100	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	944.7		mg/Kg		94	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	100		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1544/1-A

Matrix: Solid

Analysis Batch: 1568

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/09/21 09:29	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

Lab Sample ID: LCS 880-1544/2-A

Matrix: Solid

Analysis Batch: 1568

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	251.3		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-1544/3-A

Matrix: Solid

Analysis Batch: 1568

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	251.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-1759/1-A

Matrix: Solid

Analysis Batch: 1846

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/15/21 20:43	1

Lab Sample ID: LCS 880-1759/2-A

Matrix: Solid

Analysis Batch: 1846

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.1		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-1759/3-A

Matrix: Solid

Analysis Batch: 1846

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	248.4		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-452-9 MS

Matrix: Solid

Analysis Batch: 1846

Client Sample ID: FS30

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	44.1		253	299.3		mg/Kg		101	90 - 110

Lab Sample ID: 890-452-9 MSD

Matrix: Solid

Analysis Batch: 1846

Client Sample ID: FS30

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	44.1		253	294.8		mg/Kg		99	90 - 110	2	20

Lab Sample ID: MB 880-1983/1-A

Matrix: Solid

Analysis Batch: 2015

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/19/21 20:30	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-1983/2-A

Matrix: Solid

Analysis Batch: 2015

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	250.8		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-1983/3-A

Matrix: Solid

Analysis Batch: 2015

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	260.2		mg/Kg		104	90 - 110	4	20

Lab Sample ID: MB 880-2318/1-A

Matrix: Solid

Analysis Batch: 2328

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/26/21 14:38	1

Lab Sample ID: LCS 880-2318/2-A

Matrix: Solid

Analysis Batch: 2328

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	256.5		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-2318/3-A

Matrix: Solid

Analysis Batch: 2328

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	258.2		mg/Kg		103	90 - 110	1	20

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

## GC VOA

## Prep Batch: 1365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-1	FS22	Total/NA	Solid	5035	
890-452-2	FS23	Total/NA	Solid	5035	
890-452-3	FS24	Total/NA	Solid	5035	
890-452-4	FS25	Total/NA	Solid	5035	
MB 880-1365/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1365/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1365/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 1367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-1	FS22	Total/NA	Solid	8021B	1365
890-452-2	FS23	Total/NA	Solid	8021B	1365
890-452-3	FS24	Total/NA	Solid	8021B	1365
890-452-4	FS25	Total/NA	Solid	8021B	1365
MB 880-1365/5-A	Method Blank	Total/NA	Solid	8021B	1365
LCS 880-1365/1-A	Lab Control Sample	Total/NA	Solid	8021B	1365
LCSD 880-1365/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1365

## Prep Batch: 1421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-5	FS27	Total/NA	Solid	5035	
890-452-6	FS26	Total/NA	Solid	5035	
890-452-7	FS28	Total/NA	Solid	5035	
890-452-8	FS29	Total/NA	Solid	5035	
890-452-9	FS30	Total/NA	Solid	5035	
MB 880-1421/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1421/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1421/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 1428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-5	FS27	Total/NA	Solid	8021B	1421
890-452-6	FS26	Total/NA	Solid	8021B	1421
890-452-7	FS28	Total/NA	Solid	8021B	1421
890-452-8	FS29	Total/NA	Solid	8021B	1421
890-452-9	FS30	Total/NA	Solid	8021B	1421
MB 880-1421/5-A	Method Blank	Total/NA	Solid	8021B	1421
LCS 880-1421/1-A	Lab Control Sample	Total/NA	Solid	8021B	1421
LCSD 880-1421/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1421

## Prep Batch: 1506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-10	SW02	Total/NA	Solid	5035	
MB 880-1506/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1506/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1506/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-452-10 MS	SW02	Total/NA	Solid	5035	
890-452-10 MSD	SW02	Total/NA	Solid	5035	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

## GC VOA

## Analysis Batch: 1508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-10	SW02	Total/NA	Solid	8021B	1506
MB 880-1506/5-A	Method Blank	Total/NA	Solid	8021B	1506
LCS 880-1506/1-A	Lab Control Sample	Total/NA	Solid	8021B	1506
LCSD 880-1506/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1506
890-452-10 MS	SW02	Total/NA	Solid	8021B	1506
890-452-10 MSD	SW02	Total/NA	Solid	8021B	1506

## GC Semi VOA

## Prep Batch: 1281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-1	FS22	Total/NA	Solid	8015NM Prep	
890-452-2	FS23	Total/NA	Solid	8015NM Prep	
890-452-3	FS24	Total/NA	Solid	8015NM Prep	
890-452-4	FS25	Total/NA	Solid	8015NM Prep	
890-452-5	FS27	Total/NA	Solid	8015NM Prep	
890-452-6	FS26	Total/NA	Solid	8015NM Prep	
890-452-7	FS28	Total/NA	Solid	8015NM Prep	
890-452-8	FS29	Total/NA	Solid	8015NM Prep	
890-452-9	FS30	Total/NA	Solid	8015NM Prep	
890-452-10	SW02	Total/NA	Solid	8015NM Prep	
MB 880-1281/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1281/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1281/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-452-1 MS	FS22	Total/NA	Solid	8015NM Prep	
890-452-1 MSD	FS22	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 1291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-1	FS22	Total/NA	Solid	8015B NM	1281
890-452-2	FS23	Total/NA	Solid	8015B NM	1281
890-452-3	FS24	Total/NA	Solid	8015B NM	1281
890-452-4	FS25	Total/NA	Solid	8015B NM	1281
890-452-5	FS27	Total/NA	Solid	8015B NM	1281
890-452-6	FS26	Total/NA	Solid	8015B NM	1281
890-452-7	FS28	Total/NA	Solid	8015B NM	1281
890-452-8	FS29	Total/NA	Solid	8015B NM	1281
890-452-9	FS30	Total/NA	Solid	8015B NM	1281
890-452-10	SW02	Total/NA	Solid	8015B NM	1281
MB 880-1281/1-A	Method Blank	Total/NA	Solid	8015B NM	1281
LCS 880-1281/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1281
LCSD 880-1281/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1281
890-452-1 MS	FS22	Total/NA	Solid	8015B NM	1281
890-452-1 MSD	FS22	Total/NA	Solid	8015B NM	1281

## Analysis Batch: 2308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-7	FS28	Total/NA	Solid	8015B NM	2316
MB 880-2316/1-A	Method Blank	Total/NA	Solid	8015B NM	2316
LCS 880-2316/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2316
LCSD 880-2316/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2316

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

## GC Semi VOA

## Prep Batch: 2316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-7	FS28	Total/NA	Solid	8015NM Prep	
MB 880-2316/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2316/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2316/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## HPLC/IC

## Leach Batch: 1544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-3	FS24	Soluble	Solid	DI Leach	
890-452-4	FS25	Soluble	Solid	DI Leach	
MB 880-1544/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1544/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1544/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 1568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-3	FS24	Soluble	Solid	300.0	1544
890-452-4	FS25	Soluble	Solid	300.0	1544
MB 880-1544/1-A	Method Blank	Soluble	Solid	300.0	1544
LCS 880-1544/2-A	Lab Control Sample	Soluble	Solid	300.0	1544
LCSD 880-1544/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1544

## Leach Batch: 1759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-5	FS27	Soluble	Solid	DI Leach	
890-452-6	FS26	Soluble	Solid	DI Leach	
890-452-7	FS28	Soluble	Solid	DI Leach	
890-452-8	FS29	Soluble	Solid	DI Leach	
890-452-9	FS30	Soluble	Solid	DI Leach	
890-452-10	SW02	Soluble	Solid	DI Leach	
MB 880-1759/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1759/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1759/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-452-9 MS	FS30	Soluble	Solid	DI Leach	
890-452-9 MSD	FS30	Soluble	Solid	DI Leach	

## Analysis Batch: 1846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-5	FS27	Soluble	Solid	300.0	1759
890-452-6	FS26	Soluble	Solid	300.0	1759
890-452-7	FS28	Soluble	Solid	300.0	1759
890-452-8	FS29	Soluble	Solid	300.0	1759
890-452-9	FS30	Soluble	Solid	300.0	1759
890-452-10	SW02	Soluble	Solid	300.0	1759
MB 880-1759/1-A	Method Blank	Soluble	Solid	300.0	1759
LCS 880-1759/2-A	Lab Control Sample	Soluble	Solid	300.0	1759
LCSD 880-1759/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1759
890-452-9 MS	FS30	Soluble	Solid	300.0	1759
890-452-9 MSD	FS30	Soluble	Solid	300.0	1759

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

## HPLC/IC

## Leach Batch: 1983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-1	FS22	Soluble	Solid	DI Leach	
MB 880-1983/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1983/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1983/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 2015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-1	FS22	Soluble	Solid	300.0	1983
MB 880-1983/1-A	Method Blank	Soluble	Solid	300.0	1983
LCS 880-1983/2-A	Lab Control Sample	Soluble	Solid	300.0	1983
LCSD 880-1983/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1983

## Leach Batch: 2318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-2	FS23	Soluble	Solid	DI Leach	
MB 880-2318/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2318/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2318/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 2328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-452-2	FS23	Soluble	Solid	300.0	2318
MB 880-2318/1-A	Method Blank	Soluble	Solid	300.0	2318
LCS 880-2318/2-A	Lab Control Sample	Soluble	Solid	300.0	2318
LCSD 880-2318/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2318

Eurofins Xenco, Carlsbad



## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS22

Lab Sample ID: 890-452-1

Date Collected: 03/29/21 09:45

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1365	04/06/21 11:00	MR	XM
Total/NA	Analysis	8021B		1	1367	04/06/21 18:42	AJ	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 14:05	AJ	XM
Soluble	Leach	DI Leach			1983	04/19/21 17:00	SC	XM
Soluble	Analysis	300.0		1	2015	04/19/21 21:41	CH	XM

Client Sample ID: FS23

Lab Sample ID: 890-452-2

Date Collected: 03/29/21 13:45

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1365	04/06/21 11:00	MR	XM
Total/NA	Analysis	8021B		1	1367	04/06/21 19:03	AJ	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 15:08	AJ	XM
Soluble	Leach	DI Leach			2318	04/26/21 09:51	SC	XM
Soluble	Analysis	300.0		1	2328	04/26/21 17:00	SC	XM

Client Sample ID: FS24

Lab Sample ID: 890-452-3

Date Collected: 03/29/21 13:50

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1365	04/06/21 11:00	MR	XM
Total/NA	Analysis	8021B		1	1367	04/06/21 19:23	AJ	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 15:30	AJ	XM
Soluble	Leach	DI Leach			1544	04/08/21 15:31	CH	XM
Soluble	Analysis	300.0		1	1568	04/09/21 12:09	CH	XM

Client Sample ID: FS25

Lab Sample ID: 890-452-4

Date Collected: 03/29/21 13:40

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1365	04/06/21 11:00	MR	XM
Total/NA	Analysis	8021B		1	1367	04/06/21 19:44	AJ	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 15:52	AJ	XM
Soluble	Leach	DI Leach			1544	04/08/21 15:31	CH	XM
Soluble	Analysis	300.0		1	1568	04/09/21 12:15	CH	XM

Eurofins Xenco, Carlsbad

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS27

Lab Sample ID: 890-452-5

Date Collected: 03/29/21 14:00

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1421	04/07/21 09:26	MR	XM
Total/NA	Analysis	8021B		1	1428	04/07/21 13:26	KL	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 16:13	AJ	XM
Soluble	Leach	DI Leach			1759	04/14/21 08:41	CH	XM
Soluble	Analysis	300.0		1	1846	04/15/21 21:55	SC	XM

Client Sample ID: FS26

Lab Sample ID: 890-452-6

Date Collected: 03/29/21 13:35

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1421	04/07/21 09:26	MR	XM
Total/NA	Analysis	8021B		1	1428	04/07/21 13:47	KL	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 16:35	AJ	XM
Soluble	Leach	DI Leach			1759	04/14/21 08:41	CH	XM
Soluble	Analysis	300.0		1	1846	04/15/21 22:00	SC	XM

Client Sample ID: FS28

Lab Sample ID: 890-452-7

Date Collected: 03/29/21 14:55

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1421	04/07/21 09:26	MR	XM
Total/NA	Analysis	8021B		1	1428	04/07/21 14:07	KL	XM
Total/NA	Prep	8015NM Prep			2316	04/26/21 08:55	DM	XM
Total/NA	Analysis	8015B NM		1	2308	04/26/21 16:27	AJ	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 16:56	AJ	XM
Soluble	Leach	DI Leach			1759	04/14/21 08:41	CH	XM
Soluble	Analysis	300.0		1	1846	04/15/21 22:06	SC	XM

Client Sample ID: FS29

Lab Sample ID: 890-452-8

Date Collected: 03/29/21 14:28

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1421	04/07/21 09:26	MR	XM
Total/NA	Analysis	8021B		1	1428	04/07/21 14:28	KL	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 17:18	AJ	XM
Soluble	Leach	DI Leach			1759	04/14/21 08:41	CH	XM
Soluble	Analysis	300.0		1	1846	04/15/21 22:12	SC	XM

Eurofins Xenco, Carlsbad

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Client Sample ID: FS30

Lab Sample ID: 890-452-9

Date Collected: 03/29/21 14:25

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1421	04/07/21 09:26	MR	XM
Total/NA	Analysis	8021B		1	1428	04/07/21 14:49	KL	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 17:40	AJ	XM
Soluble	Leach	DI Leach			1759	04/14/21 08:41	CH	XM
Soluble	Analysis	300.0		1	1846	04/15/21 22:17	SC	XM

Client Sample ID: SW02

Lab Sample ID: 890-452-10

Date Collected: 03/29/21 09:20

Matrix: Solid

Date Received: 03/30/21 08:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1506	04/08/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	1508	04/08/21 16:39	AJ	XM
Total/NA	Prep	8015NM Prep			1281	04/03/21 13:15	DM	XM
Total/NA	Analysis	8015B NM		1	1291	04/04/21 18:01	AJ	XM
Soluble	Leach	DI Leach			1759	04/14/21 08:41	CH	XM
Soluble	Analysis	300.0		1	1846	04/15/21 22:34	SC	XM

## Laboratory References:

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

Eurofins Xenco, Carlsbad

**Accreditation/Certification Summary**

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

**Laboratory: Eurofins Xenco, Midland**

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Eurofins Xenco, Carlsbad

## Method Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

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

**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.

**Laboratory References:**

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

Eurofins Xenco, Carlsbad

## Sample Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-452-1  
SDG: Eddy County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-452-1	FS22	Solid	03/29/21 09:45	03/30/21 08:57	1 - 1.5
890-452-2	FS23	Solid	03/29/21 13:45	03/30/21 08:57	- 1
890-452-3	FS24	Solid	03/29/21 13:50	03/30/21 08:57	- 1
890-452-4	FS25	Solid	03/29/21 13:40	03/30/21 08:57	- 1
890-452-5	FS27	Solid	03/29/21 14:00	03/30/21 08:57	2 - 4
890-452-6	FS26	Solid	03/29/21 13:35	03/30/21 08:57	- 1
890-452-7	FS28	Solid	03/29/21 14:55	03/30/21 08:57	- 1
890-452-8	FS29	Solid	03/29/21 14:28	03/30/21 08:57	- 0.5
890-452-9	FS30	Solid	03/29/21 14:25	03/30/21 08:57	- 0.5
890-452-10	SW02	Solid	03/29/21 09:20	03/30/21 08:57	0 - 4

Eurofins Xenco, Carlsbad



## Chain of Custody

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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashtad, NM (432) 704-5440  
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	JOSEPH HERNANDEZ	Bill to: (if different)	JIM RALEY
Company Name:	W SRUSA	Company Name:	WRX ENERGY
Address:	3300 N A STREET	Address:	5315 BUENA VISTA DR
City, State ZIP:	MIDLAND, TX 79705	City, State ZIP:	CARLSBAD, NM 88228
Phone:	(281) 762-2824	Email:	joseph.hernandez@wsrcusa.com

Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:
Reporting Level: I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRAP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	Loneview 31-1	Turn Around	
Project Number:	TE05102101010	Routine	<input checked="" type="checkbox"/>
Project Location:	EDDY COUNTY	Rush:	
Sampler's Name:	ANNA BYERS	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temperature (°C):	0.4/0.2	Thermometer ID	LNM-007	
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2	
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Total Containers:		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			

## Number of Containers

TPH (EPA 815 Mod)  
 BTEX (EPA 812.1B)  
 Chloride (EPA 812.1C)

## ANALYSIS REQUEST



800-452 Chain of Custody

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 815 Mod)	BTEX (EPA 812.1B)	Chloride (EPA 812.1C)	MeOH: Me	Preservative Codes
FS22		S	3/24/21	0945	1-1.5'	1	X	X	X		
FS23		S	3/24/21	1345	1'	1	X	X	X		
FS24		S	3/24/21	1350	1'	1	X	X	X		
FS25		S	3/24/21	1340	1'	1	X	X	X		
FS26		S	3/24/21	1400	2-4'	1	X	X	X		
FS27		S	3/24/21	1335	1'	1	X	X	X		
FS28		S	3/24/21	1455	1'	1	X	X	X		
FS29		S	3/24/21	1428	0.5'	1	X	X	X		
FS30		S	3/24/21	1425	0.5'	1	X	X	X		
SV02		S	3/24/21	0940	0-4'	1	X	X	X		

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 Ag SiO2 Na Sr Ti Sn U V Zn  
 TCLP/SPLP 6010: 8RCRA SD 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. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Anna Byers</i>	<i>Jim Raley</i>	3:30:21 0657			

Revised Date 02/28/19 Rev 2019.1



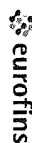
Eurofins Xenco, Carlsbad

1089 N Canal St.

Carlsbad NM 88220

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

## Chain of Custody Record



## Environment Testing America

<b>Client Information (Sub Contract Lab)</b>			Sampler	Lab PM	Carrier Tracking Note(s)	COC No:							
Client Contact: <b>Shipping/Receiving</b>			Phone:	Kramer, Jessica		890-138 1							
Company: <b>Eurofins Xenco</b>			E-Mail: <b>jessica.kramer@eurofinsnet.com</b>	Accreditations Required (See note): <b>NELAP - Texas</b>	State of Origin: <b>New Mexico</b>	Page: <b>Page 1 of 2</b>							
Address: <b>12111 W. Florida Ave.</b>			Due Date Requested: <b>4/5/2021</b>	Job #: <b>890-452-1</b>									
City: <b>Midland</b>			TAT Requested (days):	Preservation Codes									
State, Zip: <b>TX, 79701</b>				A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Arachid H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other									
Phone: <b>432-704-5440(Tel)</b>			PO #:	M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)									
Email:			WO #:										
Project Name: <b>Longview 31-1</b>			Project #:										
Site:			SSOW#:										
<b>Sample Identification - Client ID (Lab ID)</b>			<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=water/sol, BT=tissue, A=air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>300_ORGFMM_28D/DI_LEACH Chloride</b>	<b>8015MOD_NM/8016NM_S_Prep Full TPH</b>	<b>8021B/5035FP_Calc BTEX</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note:</b>
FS22 (890-452-1)			3/29/21	09 45	Mountain	Solid		X	X	X			
FS23 (890-452-2)			3/29/21	13 45	Mountain	Solid		X	X	X			
FS24 (890-452-3)			3/29/21	13 50	Mountain	Solid		X	X	X			
FS25 (890-452-4)			3/29/21	13 40	Mountain	Solid		X	X	X			
FS27 (890-452-5)			3/29/21	14 00	Mountain	Solid		X	X	X			
FS26 (890-452-6)			3/29/21	13 35	Mountain	Solid		X	X	X			
FS28 (890-452-7)			3/29/21	14 55	Mountain	Solid		X	X	X			
FS29 (890-452-8)			3/29/21	14 28	Mountain	Solid		X	X	X			
FS30 (890-452-9)			3/29/21	14 25	Mountain	Solid		X	X	X			
Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.													
<b>Possible Hazard Identification</b>													
<b>Unconfirmed</b>													
Deliverable Requested I II III IV Other (specify) <b>Primary Deliverable Rank 2</b>													
Empty Kit Relinquished by													
Relinquished by <b>See CofC 3-2021</b> Date/Time: Company: Received by <b>[Signature]</b> Date/Time: <b>3/30/21 2:00 PM</b> Company:													
Relinquished by Date/Time: Company: Received by Date/Time: Company:													
Custody Seals Intact: Custody Seal No <b>Δ Yes Δ No</b> Cooler Temperature(s) °C and Other Remarks:													

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-452-1

SDG Number: Eddy County

**Login Number: 452****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: 890-452-1

SDG Number: Eddy County

**Login Number: 452****List Number: 2****Creator: Copeland, Tatiana****List Source: Eurofins Midland****List Creation: 03/30/21 02:44 PM**

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



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-444-1

Laboratory Sample Delivery Group: Eddy County NM  
Client Project/Site: Longview 31-1

For:

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

Attn: Joseph Hernandez

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

Authorized for release by:  
4/12/2021 5:55:28 PM

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

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results through

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

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

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

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Laboratory Job ID: 890-444-1  
SDG: Eddy County NM

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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### Job ID: 890-444-1

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Laboratory: Eurofins Xenco, Carlsbad

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#### Narrative

#### Job Narrative 890-444-1

##### Receipt

The sample was received on 3/26/2021 1:06 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

##### Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SW01 (890-444-1).

##### GC VOA

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

##### GC Semi VOA

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

##### HPLC/IC

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



## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

Client Sample ID: SW01

Lab Sample ID: 890-444-1

Date Collected: 03/25/21 15:42

Matrix: Solid

Date Received: 03/26/21 01:06

Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 12:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 12:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 12:51	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 12:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/07/21 12:45	04/08/21 12:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/07/21 12:45	04/08/21 12:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 12:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/07/21 12:45	04/08/21 12:51	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/07/21 12:45	04/08/21 12:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/06/21 13:35	04/07/21 03:51	1
Total TPH	<49.8	U	49.8		mg/Kg		04/06/21 13:35	04/07/21 03:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/06/21 13:35	04/07/21 03:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/06/21 13:35	04/07/21 03:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	04/06/21 13:35	04/07/21 03:51	1
o-Terphenyl	81		70 - 130	04/06/21 13:35	04/07/21 03:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	502		5.05		mg/Kg			04/08/21 18:26	1

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## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

## 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)
890-444-1	SW01	106	101
LCS 880-1434/1-A	Lab Control Sample	113	107
LCS 880-1448/1-A	Lab Control Sample	105	99
LCS 880-1560/1-A	Lab Control Sample	91	100
LCSD 880-1434/2-A	Lab Control Sample Dup	95	100
LCSD 880-1448/2-A	Lab Control Sample Dup	103	98
LCSD 880-1560/2-A	Lab Control Sample Dup	97	100
MB 880-1434/5-A	Method Blank	101	101
MB 880-1448/5-A	Method Blank	100	96
MB 880-1560/5-A	Method Blank	102	100
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-444-1	SW01	89	81
LCS 880-1378/2-A	Lab Control Sample	105	91
LCSD 880-1378/3-A	Lab Control Sample Dup	104	91
MB 880-1378/1-A	Method Blank	104	100
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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

Lab Sample ID: MB 880-1434/5-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1434

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/07/21 11:05	04/07/21 18:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 11:05	04/07/21 18:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/07/21 11:05	04/07/21 18:50	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/07/21 11:05	04/07/21 18:50	1

Lab Sample ID: LCS 880-1434/1-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1167		mg/Kg		117	70 - 130
Ethylbenzene	0.100	0.1119		mg/Kg		112	70 - 130
Toluene	0.100	0.1086		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.2255		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1195		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-1434/2-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1434

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08693		mg/Kg		87	70 - 130	29	35
Ethylbenzene	0.100	0.08614		mg/Kg		86	70 - 130	26	35
Toluene	0.100	0.08347		mg/Kg		83	70 - 130	26	35
m-Xylene & p-Xylene	0.200	0.1683		mg/Kg		84	70 - 130	29	35
o-Xylene	0.100	0.08392		mg/Kg		84	70 - 130	35	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-1448/5-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 05:41	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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

Lab Sample ID: MB 880-1448/5-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 05:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 05:41	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 05:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/07/21 12:45	04/08/21 05:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/07/21 12:45	04/08/21 05:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/07/21 12:45	04/08/21 05:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	04/07/21 12:45	04/08/21 05:41	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/07/21 12:45	04/08/21 05:41	1

Lab Sample ID: LCS 880-1448/1-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07615		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.08662		mg/Kg		87	70 - 130
Toluene	0.100	0.07745		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	0.200	0.1673		mg/Kg		84	70 - 130
o-Xylene	0.100	0.08750		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-1448/2-A

Matrix: Solid

Analysis Batch: 1437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07244		mg/Kg		72	70 - 130	5	35
Ethylbenzene	0.100	0.08685		mg/Kg		87	70 - 130	0	35
Toluene	0.100	0.07509		mg/Kg		75	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1680		mg/Kg		84	70 - 130	0	35
o-Xylene	0.100	0.08703		mg/Kg		87	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-1560/5-A

Matrix: Solid

Analysis Batch: 1562

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 14:00	04/09/21 12:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 14:00	04/09/21 12:12	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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

Lab Sample ID: MB 880-1560/5-A

Matrix: Solid

Analysis Batch: 1562

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 14:00	04/09/21 12:12	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 14:00	04/09/21 12:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/08/21 14:00	04/09/21 12:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/08/21 14:00	04/09/21 12:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 14:00	04/09/21 12:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/08/21 14:00	04/09/21 12:12	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/08/21 14:00	04/09/21 12:12	1

Lab Sample ID: LCS 880-1560/1-A

Matrix: Solid

Analysis Batch: 1562

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09450		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09135		mg/Kg		91	70 - 130
Toluene	0.100	0.09084		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1748		mg/Kg		87	70 - 130
o-Xylene	0.100	0.08675		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-1560/2-A

Matrix: Solid

Analysis Batch: 1562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09117		mg/Kg		91	70 - 130	4	35
Ethylbenzene	0.100	0.09029		mg/Kg		90	70 - 130	1	35
Toluene	0.100	0.08846		mg/Kg		88	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1762		mg/Kg		88	70 - 130	1	35
o-Xylene	0.100	0.08830		mg/Kg		88	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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

Lab Sample ID: MB 880-1378/1-A

Matrix: Solid

Analysis Batch: 1362

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Total TPH	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/06/21 13:35	04/06/21 21:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	04/06/21 13:35	04/06/21 21:27	1
o-Terphenyl	100		70 - 130	04/06/21 13:35	04/06/21 21:27	1

Lab Sample ID: LCS 880-1378/2-A

Matrix: Solid

Analysis Batch: 1362

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1146		mg/Kg		115	70 - 130
Diesel Range Organics (Over C10-C28)	1000	940.9		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: LCSD 880-1378/3-A

Matrix: Solid

Analysis Batch: 1362

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1378

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1181		mg/Kg		118	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	934.7		mg/Kg		93	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	91		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1382/1-A

Matrix: Solid

Analysis Batch: 1522

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/08/21 16:18	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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

Lab Sample ID: LCS 880-1382/2-A

Matrix: Solid

Analysis Batch: 1522

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	263.3		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-1382/3-A

Matrix: Solid

Analysis Batch: 1522

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	263.2		mg/Kg		105	90 - 110	0	20



## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

## GC VOA

## Prep Batch: 1434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1434/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1434/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1434/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 1437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-444-1	SW01	Total/NA	Solid	8021B	1448
MB 880-1434/5-A	Method Blank	Total/NA	Solid	8021B	1434
MB 880-1448/5-A	Method Blank	Total/NA	Solid	8021B	1448
LCS 880-1434/1-A	Lab Control Sample	Total/NA	Solid	8021B	1434
LCS 880-1448/1-A	Lab Control Sample	Total/NA	Solid	8021B	1448
LCSD 880-1434/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1434
LCSD 880-1448/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1448

## Prep Batch: 1448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-444-1	SW01	Total/NA	Solid	5035	
MB 880-1448/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1448/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1448/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Prep Batch: 1560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1560/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1560/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1560/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 1562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1560/5-A	Method Blank	Total/NA	Solid	8021B	1560
LCS 880-1560/1-A	Lab Control Sample	Total/NA	Solid	8021B	1560
LCSD 880-1560/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1560

## GC Semi VOA

## Analysis Batch: 1362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-444-1	SW01	Total/NA	Solid	8015B NM	1378
MB 880-1378/1-A	Method Blank	Total/NA	Solid	8015B NM	1378
LCS 880-1378/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1378
LCSD 880-1378/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1378

## Prep Batch: 1378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-444-1	SW01	Total/NA	Solid	8015NM Prep	
MB 880-1378/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1378/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1378/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

## HPLC/IC

## Leach Batch: 1382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-444-1	SW01	Soluble	Solid	DI Leach	
MB 880-1382/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1382/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1382/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 1522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-444-1	SW01	Soluble	Solid	300.0	1382
MB 880-1382/1-A	Method Blank	Soluble	Solid	300.0	1382
LCS 880-1382/2-A	Lab Control Sample	Soluble	Solid	300.0	1382
LCSD 880-1382/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1382

Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

Client Sample ID: SW01  
Date Collected: 03/25/21 15:42  
Date Received: 03/26/21 01:06

Lab Sample ID: 890-444-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1448	04/07/21 12:45	KL	XM
Total/NA	Analysis	8021B		1	1437	04/08/21 12:51	KL	XM
Total/NA	Prep	8015NM Prep			1378	04/06/21 13:35	DM	XM
Total/NA	Analysis	8015B NM		1	1362	04/07/21 03:51	AJ	XM
Soluble	Leach	DI Leach			1382	04/06/21 14:32	CH	XM
Soluble	Analysis	300.0		1	1522	04/08/21 18:26	WP	XM

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

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

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

**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.

**Laboratory References:**

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

Sample Summary

Client: WSP USA Inc.  
Project/Site: Longview 31-1

Job ID: 890-444-1  
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-444-1	SW01	Solid	03/25/21 15:42	03/26/21 01:06	0 - 3

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



## Chain of Custody

**Work Order No:**

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1256 Crashtab, NM (432) 704-5440  
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-67

Page 1 of 1

of

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Bailey
Company Name:	WSP USA	Company Name:	WPK
Address:	3300 N A St	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland TX 79705	City, State ZIP:	Eastland, MN 56022
Phone:	(817) 702-2329	Email:	Joe Hernandez @ wsp.com + anna.bayley@wsp.com

Work Order Comments	
<b>Program:</b> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> <b>State of Project:</b> <b>Reporting:</b> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRAP <input type="checkbox"/> Level IV <input type="checkbox"/> <b>Deliverables:</b> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Loveview 3i-1	Turn Around
Project Number:	TEP3418210810	<input checked="" type="checkbox"/> Routine
Project Location	Eddy County	Rush:
Sampler's Name:	David Byers	Due Date:
PO #:		Quote #:

SAMPLE RECEIPT	Temp Blank:	(Yes No)	Wet Ice:	(Yes No)
Temperature (°C):	-247.2			
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No)	N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No)	N/A	Total Containers:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
	31461	S	3/25/21	15:42	0-3'

Pres. Code	ANALYSIS REQUEST										Preservative Codes
Number of Containers											MeOH: Me
TPH (EPA 8015 mod)											None: NO
BTEX (EPA 8021B)											HNO3: HN
Cyanide (EPA 8060)											H2SO4: H2
											HCL: HL
											NaOH: Na
											Zn Acetate+ NaOH: Zn
											TAT starts the day received by the lab, received by 4:00pm
											Sample Comments

[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  
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

~~1631 / 245.1 / 7470 / 7471 · Hg~~

**Notice:** Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5.00 for each sample submitted. Payment is due within 30 days of invoice. These terms will be enforced unless promptly negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	<i>[Signature]</i>	<i>[Signature]</i>	3.26.21 16:13			
2						
3						
4						
5						
6						

Issued Date 02/26/19 Rev. 2018



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-444-1

SDG Number: Eddy County NM

Login Number: 444

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: 890-444-1

SDG Number: Eddy County NM

Login Number: 444

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 04/06/21 07:56 AM

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

Incident ID	nAPP2107743055
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: Jim Raley

Title: Environmental Professional

Signature: \_\_\_\_\_



Date: 6/1/2021

email: jim.raley.dvn.com

Telephone: 575-689-7597

**OCD Only**

Received by: Robert Hamlet

Date: 9/1/2021

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: Robert Hamlet

Date: 9/1/2021

Printed Name: Robert Hamlet

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 30039

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 30039
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2107743055 LONGVIEW FEDERAL 31 #001H, thank you. This closure is approved.	9/1/2021