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	nAPP2124349541
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: jim.raley@dvn.com	Incident # *(assigned by OCD)* nAPP2124349541
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

Location of Release Source

Latitude 32.0224686 Longitude -103.8895416
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDX FEDERAL 21 #042	Site Type: Oil Production Facility
Date Release Discovered: Aug 30th, 2021	API# *(if applicable)* 30-015-40643

Unit Letter	Section	Township	Range	County
N	21	26S	30E	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)

☒ Crude Oil	Volume Released (bbls) 4	Volume Recovered (bbls) 4
☒ Produced Water	Volume Released (bbls) 250	Volume Recovered (bbls) 250
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Hose on water transfer pump disconnected from pump allowing fluids to drain into lined secondary containment. Fluids fully recovered by Vac Truck.

BBL Estimate = Recovered Volume

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2124349541
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Volume exceeded 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc) Notification made via email 8/31/2021 to Mike Bratcher and Emily Hernanadez.	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: ____James Raley_____ Title: Environmental Specialist _____

Signature: _____ _____ Date: ___09/02/2021_____

email: ___jim.raley@dvn.com_____ Telephone: ___575-689-7597_____

OCD Only

Received by: Ramona Marcus Date: 9/10/2021

Incident ID	nAPP2124349541
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ No

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

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

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

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

Form C-141 State of New Mexico
Page 4 Oil Conservation Division

Incident ID	nAPP2124349541
District RP	
Facility ID	
Application ID	

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

Printed Name: James Raley Title: Environmental Specialist

Signature: Date: 11/24/2021

email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Date:

Incident ID	nAPP2124349541
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: James Raley Title: Environmental Specialist

Signature: Date: 11/24/2021

email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Chad Hensley Date: 12/21/2021

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: Date: 12/21/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

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

November 21, 2021

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

RE : Closure Request
WPX Energy Permian, LLC.
RDX Federal 21 #042
Incident Number nAPP2124349541
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc (WSP) on behalf of WPX Energy Permian, LLC. (WPX) presents the following Closure Request detailing soil sampling activities at the RDX Federal 21 #042 (Site) located in Unit N, Section 21, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling activities was to assess the presences or absence of impacts to soil following an August 30, 2021 release of produced water. Based on the results of the soil sampling events, WPX is submitting this Closure Request, describing site assessment and delineation activities that have occurred and requesting no further action (NFA) for Incident Number nAPP2124349541.

RELEASE BACKGROUND

On August 30, 2021, the hose on a water transfer pump disconnected and resulted in the release of approximately 4 barrels (bbls) of crude oil and 250 bbls of produced water into the lined secondary containment. A vacuum truck was immediately dispatched and recovered approximately 4 bbls of crude oil and 250 bbls of produced water from the lined secondary containment. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on September 2, 2021 and was subsequently assigned Incident Number nAPP2124349541.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). depth to groundwater at the Site is estimated to be greater than 100 feet bgs based on soil boring MW-1, associated with Ross Draw Unit (RDU) Federal Com 21-43, that was drilled by Talon LPE on December 9, 2020. The soil boring is located approximately 0.28 miles east of the Site. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of approximately 105 feet bgs. Groundwater was not observed within the soil boring after at least 72 hours. Following the observation period, the boring was plugged and abandoned. The boring log is included as Attachment 1.

Regionally, WPX installed six other borings in December 2020 ((RDX 16-25 (MW-1), RDX 17 #3 (MW-1), RDX Federal Com 17-44H (MW-1), RDU #38 (MW-1), RDU #55 (MW-1), and RDU #57 (MW-1)) within a 5 mile radius of the Site and depth to water results for all six indicated groundwater was not encountered within 105 feet of the ground surface. Two other water wells, United States Geological Survey (USGS) well number 320125103514701 and New Mexico Office of the State Engineer (OSE) well number C 02165, indicate depth to water was 117 feet bgs and 180 feet bgs, respectively. Regionally, depth to water appears to be greater than 100 feet bgs and therefore the depth to water estimate for RDU Federal Com 21-43 appears to be consistent with the regional data, thus a representative water well for estimating depth to water for the Site. Figure 1 depicts the nine water wells described above.

The closest continuously flowing or significant watercourse to the Site is an intermittent streambed located approximately 1,265 feet west 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 located in a medium-potential karst area. Potential receptors identified during Site Characterization are displayed in Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)

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

LINER INSPECTION

On September 28, 2021, WSP personnel visited the Site to visually inspect the lined secondary containment for any signs of holes or tears that would act as a conduit to subsurface soil. The subsequent visual inspection of liner integrity determined the liner was not in working condition. Based on the site assessment and visual observations, delineation activities were warranted to investigate potential soil impacts. Photographic documentation of delineation activities is included as Attachment 2.

DELINEATION SOIL SAMPLING ACTIVITIES

On November 3, 2021, WSP personnel conducted delineation activities to confirm the presence or absence of impacted soils through the impaired liner. Utilizing a hand auger, WSP installed one delineation soil sample within the breach area (BH01) to determine the potential vertical extent of impact and six delineation soil samples (BH02 through BH07) outside of the containment to investigate lithology and confirm lateral delineation. Delineation activities were directed by field screening soil samples for volatile aromatic hydrocarbons using a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each of the borehole locations: the sample with the highest observed field screening concentrations (approximately 0.5 foot bgs) and the greatest depth (approximately 1 foot bgs). The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler initials, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C), under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. The delineation sample locations were mapped utilizing a handheld GPS unit and are presented on Figure 2. Field screening results and observations for the boreholes were recorded on lithologic/soil sampling logs and are presented in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil samples indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in all delineation soil samples and at both depths. Limited chloride was detected at approximately 1 foot bgs within the breach area (BH01); however, the concentration was in compliance with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the laboratory analytical report is included as Attachment 4.

CLOSURE REQUEST

WSP personnel advanced seven boreholes (BH01 through BH07) within and around the release extent to a total depth of approximately 1 foot bgs in order to assess the presence or absence of soil impacts resulting from the August 30, 2021 crude oil and produced water release. Laboratory analytical results for all four delineation soil samples indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, lateral and vertical definition of the release is below the most stringent Closure Criteria.

While chloride was present within the breached area of the liner (BH01), the concentration was in compliance with the Closure Criteria. In addition, WPX is scheduling repairs to the impaired liner to help prevent future releases to the ground surface and act as a barrier for surface infiltration of precipitation that might mobilize and vertically migrate residual chloride in soil beneath the secondary containment. Assessment and delineation activities have confirmed the absence of impacts to the subsurface resulting from the August 2021 release and efforts to mitigate the release, including the removal of free-standing fluid via a hydrovac, has been protective of human health, the environment, and groundwater. As such, WPX is requesting NFA of Incident Number nAPP2124349541.

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

Sincerely,

WSP USA Inc.

Joseph S. Hernandez
Associate Consultant, Geologist

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

cc: Jim Raley, Devon
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Water Well Record
Attachment 2	Photographic Log
Attachment 3	Lithologic/Soil Sampling Log
Attachment 4	Laboratory Analytical Reports

FIGURES

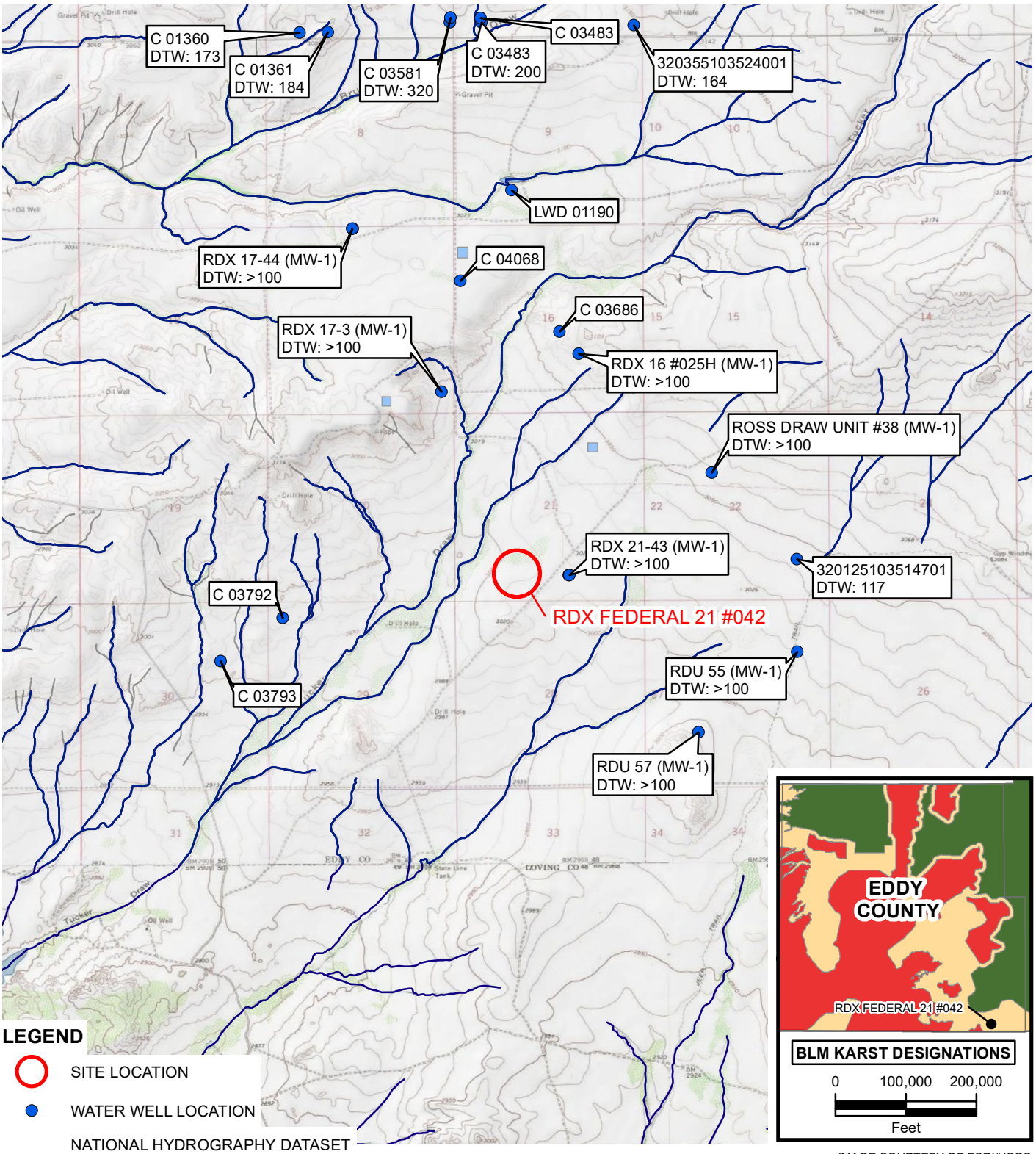

FIGURE 1
SITE LOCATION MAP
RDX FEDERAL 21 #042
UNIT N SEC 21 T26S R30E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

P:\WPX-Devon\GIS\31403360.008.03_RDX FEDERAL 21 #042\MXD\3140336.008.03_FIG01_SL_RECEPTOR_2021.mxd

LEGEND

DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

IMAGE COURTESY OF ESRI

0 50 100

Feet

N

NOTE: INCIDENT NUMBER nAPP2124349541
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
RDX FEDERAL 21 #042
UNIT N SEC 21 T26S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\WPX-Devon\GIS\31403360.008.03_RDX FEDERAL 21 #042\MXD\31403360.008.03_FIG02_DELINEATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
RDX Federal 21 #042
Incident Number nAPP2124349541
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**	**20,000**
Delineation Samples										
BH01	10/28/2021	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	2,380
BH01	10/28/2021	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	2,180
BH02	10/28/2021	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	214
BH02	10/28/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	289
BH03	10/28/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	21.1
BH03	10/28/2021	1	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	29.3
BH04	10/28/2021	0.5	<0.00199	<0.00398	64.3	<50.0	<50.0	64.3	64.3	17.6
BH04	10/28/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	19.4
BH05	10/28/2021	0.5	<0.00198	<0.00397	76.6	<50.0	<50.0	76.6	76.6	22.4
BH05	10/28/2021	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	111
BH06	10/28/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	121
BH06	10/28/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	224
BH07	10/28/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	264
BH07	10/28/2021	1	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	222

Notes:

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Greyed data represents samples that were excavated

ATTACHMENT 1: REFERENCED WELL RECORD

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: RDX 16-25	
Date: 12/10/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 sand	Gravel Pack Depth Interval: 3 bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.0399004
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-105 feet bgs		Boring Total Depth (ft. BGS): 110	Longitude: -103.8833368
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 105-110 ft		Well Total Depth (ft. BGS): 110	Depth to Water (ft. BTOC): > 110 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SW	NS	Pale orange to pink tan well graded sand with silt	
5										
10										
15										
20										
25	NM	L	D	N	N	NM	SP	NS	Pale pinky orange poorly graded fine sand	
30										
35										
40	NM	L	D	N	N	NM	SW	NS	Orange to pale red well graded sand with gravel	
45										
50	NM	L	D	N	N	NM	SP	NS	Pale pinky orange poorly graded fine sand	
55										
60	NM	L	D	N	N	NM	SP	NS	Pale pinky orange poorly graded fine sand with minor medium and coarse sand - TD: 110' bgs	
65										
70										
75										
80										
85										
90										
95										
100										
105										
110										

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #38	
Date: 12/8/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.030300
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-100 feet bgs		Boring Total Depth (ft. BGS): 105	Longitude: -103.871338
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 100-105 ft		Well Total Depth (ft. BGS): 105	Depth to Water (ft. BTOC): > 105 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SW	NS	Pale orange/pale pink to buff colored fine sand with minor medium and coarse sand	
5										
10										
15										
20	NM	L	D	N	N	NM	SP	NS	Pale orange/pale pink poorly graded fine sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Tan/pale brown/pale orange poorly graded fine sand	
40										
45										
50										
55										
60										
65										
70	NM	L	D	N	N	NM	SP	NS	Brick red brown poorly graded fine sand	
75										
80										
85										
90										
95										
100	NM	L	D	N	N	NM	SP	NS	Tan/pale brown/pale orange poorly graded fine sand - TD 105' BGS	

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: RDX Federal Com 21-43	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, P.G.	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.022571
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-100 feet bgs		Boring Total Depth (ft. BGS): 110	Longitude: -103.884371
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 100 - 105 ft		Well Total Depth (ft. BGS): 105	Depth to Water (ft. BTOC): > 105 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale orange to tan poorly graded fine sand	
5										
10										
15										
20	NM	H	D	N	N	NM	CL	NS	Pale orange/tan/pale red clay, dry, with silt, fine sand, and minor caliche	
25	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand	
30										
35										
40										
45										
50	NM	L	D	N	N	NM	SP	NS	Golden yellow poorly graded fine sand with minor silt and clay	
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand with minor silt/clay	
70										
75										
80	NM	M	D	N	N	NM	SC	NS	Buff to orange color fine sand with medium sand and clay	
85										
90										
95	NM	H	D	N	N	NM	CL	NS	Brown orange clay with silt and fine sand	
100	NM	H	D	N	N	NM	SC	NS	Golden yellow and buff colored clay with fine sand - TD Boring: 110' BGS; Sand 110' - 105' BGS	
105										

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: RDX 17 #3	
Date: 12/8/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.036765
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-102 feet bgs		Boring Total Depth (ft. BGS): 107	Longitude: -103.895993
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 102-107 ft		Well Total Depth (ft. BGS): 107	Depth to Water (ft. BTOC): > 107 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale orange poorly graded fine sand	
5										
10										
15										
20										
25										
30	NM	L	D	N	N	NM	SP	NS	Same as above with slight increase in coarse sand and gravel	
35										
40	NM	L	D	N	N	NM	SP	NS	Pale orange poorly graded fine sand with very slight silt	
45										
50										
55	NM	L	D	N	N	NM	SP	NS	Pale orange poorly graded fine sand	
60	NM	L	D	N	N	NM	SW	NS	Pale orange well graded fine sand	
65	NM	M	SL M	N	N	NM	SM	NS	Pale red orange clayey silty fine sand with minor coarse sand and gravel	
70										
75										
80										
85										
90	NM	L	SL M	N	N	NM	SP	NS	Pale orange poorly sorted fine sand - TD 107' BGS	
95										
100										
105										

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1			Location: RDX Federal Com 17-44H
Date: 12/8/2020			Client: WPX Energy
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.049656
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-105 ft bgs		Boring Total Depth (ft. BGS): 110	Longitude: -103.904054
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 105 - 110 ft		Well Total Depth (ft. BGS): 110	Depth to Water (ft. BTOC): > 110 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	CE	NS	Buff to pale pink colored caliche	
5										
10										
15										
20										
25										
30										
35										
40										
45	NM	L	D	N	N	NM	SW	NS	Pinky orange well graded sand with minor silt	
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Pinky pale brown orange poorly graded fine sand with minor silt	
70										
75										
80	NM	L	D	N	N	NM	SW-SM SW-SC	NS	Pinky brown orange well-graded sand with silt and clay	
85										
90										
95	NM	L	D	N	N	NM	SP	NS	Pinky pale brown orange poorly graded fine sand with minor silt - TD: 110' bgs	
100										
105										

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #57	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.01032
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-105 feet bgs		Boring Total Depth (ft. BGS): 110	Longitude: -103.87246
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 105-110 ft		Well Total Depth (ft. BGS): 110	Depth to Water (ft. BTOC): > 110 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L/M	D	N	N	NM	SM	NS	Tan/pale orange/pale brown poorly graded fine sand	
5										
10										
15										
20										
25										
30										
35										
40	NM	M	D	N	N	NM	SW	NS	Hard, dry pale pink orange well graded sand with gravel	
45										
50	NM	M	D	N	N	NM	SM	NS	Pale orange red tan silty fine sand	
55										
60	NM	L	D	N	N	NM	SW	NS	Dark brown greyish well graded sand	
65										
70	NM	L/M	D to SL M	N	N	NM	SW	NS	Grey well graded sand	
75										
80										
85										
90										
95										
100	NM	L/M	D	N	N	NM	SM	NS	Tan/pale orange/pale brown poorly graded fine sand - TD 110' bgs	
105										

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
WPX Energy Permian, LLC.	**RDX Federal 21 #042 Eddy County, NM**	**NAPP2124349541**

Photo No.	**Date**
1	November 3 2021

View of the Site during delineation activities

Photo No.	**Date**
2	November 3, 2021

View of the breach area inside containment during delineation activities.

ATTACHMENT 3: LITHOLOGIC/SOIL SAMPLING LOG

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH01	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022594, -103.889148 Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches	Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	2,660	0	N	BH01	0.5	0.5	SM	SAND, FINE - MEDIUM GRAIN, LIGHT BROWN, WELL GRADED, SILTY, ABUNDANT CALICHE GRAVEL, TRACE CLAY, LOW PLASTICITY, NON - COHESIVE, NO ODOR.
M	2,200	0	N	BH01	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH02	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022566, -103.889145	Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches / Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	160	0	N	BH02	0.5	0.5	SM	SAND, FINE - MEDIUM GRAIN, LIGHT BROWN, WELL GRADED, SILTY, ABUNDANT CALICHE GRAVEL, TRACE CLAY, LOW PLASTICITY, NON - COHESIVE, NO ODOR.
M	300	0	N	BH02	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH03	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022635, -103.889050 Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches	Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<128	0	N	BH03	0.5	0.5	SM	SAND, FINE - MEDIUM GRAIN, LIGHT BROWN, WELL GRADED, SILTY, ABUNDANT CALICHE GRAVEL, TRACE CLAY, LOW PLASTICITY, NON - COHESIVE, NO ODOR.
M	<128	0	N	BH03	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH04	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022737, -103.889054 Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches	Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<128	0	N	BH04	0.5	0.5	SM	SAND, FINE - MEDIUM GRAIN, LIGHT BROWN, WELL GRADED, SILTY, ABUNDANT CALICHE GRAVEL, TRACE CLAY, LOW PLASTICITY, NON - COHESIVE, NO ODOR.
M	<128	0	N	BH04	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH05	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022879, -103.889137	Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches / Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<128	0	N	BH05	0.5	0.5	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.
M	<128	0	N	BH05	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH06	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022748, -103.889244	Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches	Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<128	0	N	BH06	0.5	0.5	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.
M	160	0	N	BH06	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH07	Date: 11/03/2021
	Site Name: RDX Federal 21 #042	
	RP or Incident Number: NAPP2124349541	
	WSP Job Number: 31403360.008	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EL	Method: Hand auger
Lat/Long: 32.022658, -103.889242 Field Screening: Hach chloride strips, PID	Hole Diameter: 3 inches	Total Depth: 1 feet bgs

M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	220	0	N	BH07	0.5	0.5	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.
M	220	0	N	BH07	1	1	SC	SAND, FINE GRAIN, BROWN, POORLY GRADED, SOME CLAY, LOW PLASTICITY, COHESIVE, NO ODOR.

TD @ 1 ft bgs

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1537-1
Laboratory Sample Delivery Group: 31403360.008
Client Project/Site: RDX Federal 21 #42

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

Attn: Joseph Hernandez

JKramer

Authorized for release by:
11/9/2021 4:33:58 PM

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

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Laboratory Job ID: 890-1537-1
SDG: 31403360.008

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1537-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Job ID: 890-1537-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1537-1

Receipt
The sample was received on 11/4/2021 8:33 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 0.8°C

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

GC Semi VOA
Method 8015MOD_NM: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-11444 and analytical batch 880-11509 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Diesel Range Organics (Over C10-C28) and OII Range Organics (Over C28-C36) in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Client Sample ID: BH01

Date Collected: 11/03/21 10:50
Date Received: 11/04/21 08:33
Sample Depth: 1

Lab Sample ID: 890-1537-1

Matrix: Solid

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		11/05/21 09:00	11/05/21 13:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 09:00	11/05/21 13:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 09:00	11/05/21 13:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 09:00	11/05/21 13:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 09:00	11/05/21 13:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 09:00	11/05/21 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*11/05/21 09:00*	*11/05/21 13:27*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/05/21 09:00*	*11/05/21 13:27*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/05/21 13:50	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	<49.9	U	49.9		mg/Kg		11/04/21 10:41	11/05/21 16:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/04/21 10:41	11/05/21 16:44	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/04/21 10:41	11/05/21 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*11/04/21 10:41*	*11/05/21 16:44*	*1*
o-Terphenyl	*138*	*S1+*	*70 - 130*	*11/04/21 10:41*	*11/05/21 16:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2180**		24.9		mg/Kg			11/09/21 05:35	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1537-1	BH01	126	103
890-1537-1 MS	BH01	111	103
890-1537-1 MSD	BH01	119	102
LCS 880-11475/1-A	Lab Control Sample	107	106
LCSD 880-11475/2-A	Lab Control Sample Dup	103	106
MB 880-11475/5-A	Method Blank	110	94

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-7973-A-1-B MS	Matrix Spike	101	84
880-7973-A-1-C MSD	Matrix Spike Duplicate	101	90
890-1537-1	BH01	120	138 S1+
LCS 880-11444/2-A	Lab Control Sample	102	112
LCSD 880-11444/3-A	Lab Control Sample Dup	97	108
MB 880-11444/1-A	Method Blank	109	129

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11475/5-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/05/21 09:00*	*11/05/21 12:28*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/05/21 09:00*	*11/05/21 12:28*	*1*

Lab Sample ID: LCS 880-11475/1-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08097		mg/Kg		81	70 - 130
Toluene	0.100	0.07362		mg/Kg		74	70 - 130
Ethylbenzene	0.100	0.07723		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	0.200	0.1612		mg/Kg		81	70 - 130
o-Xylene	0.100	0.08159		mg/Kg		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-11475/2-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08404		mg/Kg		84	70 - 130	4	35
Toluene	0.100	0.07617		mg/Kg		76	70 - 130	3	35
Ethylbenzene	0.100	0.07848		mg/Kg		78	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1634		mg/Kg		82	70 - 130	1	35
o-Xylene	0.100	0.08158		mg/Kg		82	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1537-1 MS
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0998	0.09141		mg/Kg		91	70 - 130
Toluene	<0.00199	U	0.0998	0.08545		mg/Kg		85	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

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

Lab Sample ID: 890-1537-1 MS
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.08783		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1844		mg/Kg		92	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09241		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1537-1 MSD
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.08206		mg/Kg		82	70 - 130	11	35
Toluene	<0.00199	U	0.0996	0.07797		mg/Kg		78	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.0996	0.08478		mg/Kg		85	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1813		mg/Kg		91	70 - 130	2	35
o-Xylene	<0.00199	U	0.0996	0.09187		mg/Kg		92	70 - 130	1	35

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

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

Lab Sample ID: MB 880-11444/1-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11444

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		11/04/21 10:41	11/05/21 11:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/21 10:41	11/05/21 11:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/21 10:41	11/05/21 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/04/21 10:41*	*11/05/21 11:16*	*1*
o-Terphenyl	*129*		*70 - 130*	*11/04/21 10:41*	*11/05/21 11:16*	*1*

Lab Sample ID: LCS 880-11444/2-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11444

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1120		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1093		mg/Kg		109	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

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

Lab Sample ID: LCS 880-11444/2-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11444

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: LCSD 880-11444/3-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11444

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1145		mg/Kg		114	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1146		mg/Kg		115	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-7973-A-1-B MS
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<249	U F1 F2	997	1598	F1	mg/Kg		160	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-7973-A-1-C MSD
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11444

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	<249	U F1 F2	1000	1220	F2	mg/Kg		122	70 - 130	27	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	90		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11667/1-A
Matrix: Solid
Analysis Batch: 11702

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			11/09/21 03:48	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-11667/2-A
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.9		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-11667/3-A
Matrix: Solid
Analysis Batch: 11702

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	259.3		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1526-A-1-H MS
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	6410	F1	2530	9341	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 890-1526-A-1-I MSD
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6410	F1	2530	9322	F1	mg/Kg		115	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1537-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

GC VOA

Prep Batch: 11475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Total/NA	Solid	5035	
MB 880-11475/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11475/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11475/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1537-1 MS	BH01	Total/NA	Solid	5035	
890-1537-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 11515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Total/NA	Solid	8021B	11475
MB 880-11475/5-A	Method Blank	Total/NA	Solid	8021B	11475
LCS 880-11475/1-A	Lab Control Sample	Total/NA	Solid	8021B	11475
LCSD 880-11475/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11475
890-1537-1 MS	BH01	Total/NA	Solid	8021B	11475
890-1537-1 MSD	BH01	Total/NA	Solid	8021B	11475

Analysis Batch: 11768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Total/NA	Solid	8015NM Prep	
MB 880-11444/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11444/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11444/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7973-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7973-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Total/NA	Solid	8015B NM	11444
MB 880-11444/1-A	Method Blank	Total/NA	Solid	8015B NM	11444
LCS 880-11444/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11444
LCSD 880-11444/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11444
880-7973-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	11444
880-7973-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11444

Analysis Batch: 11598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Soluble	Solid	DI Leach	
MB 880-11667/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11667/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11667/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1537-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

HPLC/IC (Continued)

Leach Batch: 11667 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1526-A-1-H MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1526-A-1-I MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1537-1	BH01	Soluble	Solid	300.0	11667
MB 880-11667/1-A	Method Blank	Soluble	Solid	300.0	11667
LCS 880-11667/2-A	Lab Control Sample	Soluble	Solid	300.0	11667
LCSD 880-11667/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11667
890-1526-A-1-H MS	Matrix Spike	Soluble	Solid	300.0	11667
890-1526-A-1-I MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11667

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Client Sample ID: BH01

Date Collected: 11/03/21 10:50
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1537-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11515	11/05/21 13:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11444	11/04/21 10:41	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11509	11/05/21 16:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	11667	11/08/21 11:05	CH	XEN MID
Soluble	Analysis	300.0		5			11702	11/09/21 05:35	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1537-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1537-1
SDG: 31403360.008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1537-1	BH01	Solid	11/03/21 10:50	11/04/21 08:33	1

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Jim Raley
Company Name:	WSP Permian office	Company Name:	WPX Energy
Address:	3300 North A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM, 88220
Phone:	(432) 236-3849 Email:		Elliot.Lee@wsp.com, Anna.Byers@wsp.com

Work Order Comments

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

Project Name:	RDX Federal 21 # 42	Turn Around	
Project Number:	31403360.008	Routine ☐	
P.O. Number:		Rush: 24H	
Sampler's Name:	Elliot Lee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	1.2/0.8	Thermometer ID	TM007
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	11/3/2021	10:50	1'	1	X	X	X

890-1537 Chain of Custody

Work Order Notes

Incident # NAPP2124349541

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

Sample Comments

Discrete

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.4.21 0830	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-1537-1
Address: 1211 W Florida Ave	Due Date Requested: 11/5/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #			
Project Name: RDX Federal 21 #42	Project #: 88000203			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH01 (890-1537-1)	11/3/21	10 50 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Cue Cisp 11.4.21	Date/Time:	Company	Received by: Kramer	Date/Time: 11.5.21	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time: 1304	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.6/4.7

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1537-1
SDG Number: 31403360.008

Login Number: 1537
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1537-1
SDG Number: 31403360.008

Login Number: 1537
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1538-1
Laboratory Sample Delivery Group: 31403360.008
Client Project/Site: RDX Federal 21 #42

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

Attn: Joseph Hernandez

JKramer

Authorized for release by:
11/16/2021 4:56:43 PM

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

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Laboratory Job ID: 890-1538-1
SDG: 31403360.008

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Job ID: 890-1538-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1538-1

Receipt
The samples were received on 11/4/2021 8:33 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11531 and analytical batch 880-11601 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11615 and analytical batch 880-11626 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH01

Lab Sample ID: 890-1538-1
Matrix: Solid
Date Collected: 11/03/21 10:45
Date Received: 11/04/21 08:33
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 F1	0.00202		mg/Kg		11/05/21 11:19	11/05/21 17:49	1
Toluene	<0.00202	U F1 F2	0.00202		mg/Kg		11/05/21 11:19	11/05/21 17:49	1
Ethylbenzene	<0.00202	U F1	0.00202		mg/Kg		11/05/21 11:19	11/05/21 17:49	1
m-Xylene & p-Xylene	<0.00403	U F1	0.00403		mg/Kg		11/05/21 11:19	11/05/21 17:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/05/21 11:19	11/05/21 17:49	1
Xylenes, Total	<0.00403	U F1	0.00403		mg/Kg		11/05/21 11:19	11/05/21 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:49*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	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 F2	49.9		mg/Kg		11/05/21 16:18	11/06/21 22:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/06/21 22:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/06/21 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/05/21 16:18*	*11/06/21 22:45*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/05/21 16:18*	*11/06/21 22:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2380**		25.0		mg/Kg			11/12/21 12:59	5

Client Sample ID: BH02

Lab Sample ID: 890-1538-2
Matrix: Solid
Date Collected: 11/03/21 13:12
Date Received: 11/04/21 08:33
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/05/21 11:19	11/05/21 18:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/05/21 11:19	11/05/21 18:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/05/21 11:19	11/05/21 18:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/05/21 11:19	11/05/21 18:10	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/05/21 11:19	11/05/21 18:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/05/21 11:19	11/05/21 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/05/21 11:19*	*11/05/21 18:10*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH02

Lab Sample ID: 890-1538-2
Matrix: Solid
Date Collected: 11/03/21 13:12
Date Received: 11/04/21 08:33
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/05/21 11:19*	*11/05/21 18:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/06/21 23:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/06/21 23:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/06/21 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*11/05/21 16:18*	*11/06/21 23:46*	*1*
o-Terphenyl	*126*		*70 - 130*	*11/05/21 16:18*	*11/06/21 23:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**214**		25.0		mg/Kg			11/12/21 13:21	5

Client Sample ID: BH02

Lab Sample ID: 890-1538-3
Matrix: Solid
Date Collected: 11/03/21 13:20
Date Received: 11/04/21 08:33
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		11/05/21 11:19	11/05/21 18:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 18:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/05/21 11:19*	*11/05/21 18:30*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/05/21 11:19*	*11/05/21 18:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/09/21 16:19	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH02

Lab Sample ID: 890-1538-3
Matrix: Solid
Date Collected: 11/03/21 13:20
Date Received: 11/04/21 08:33
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		11/05/21 16:18	11/07/21 00:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/07/21 00:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/07/21 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/05/21 16:18*	*11/07/21 00:06*	*1*
o-Terphenyl	*102*		*70 - 130*	*11/05/21 16:18*	*11/07/21 00:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**289**		4.96		mg/Kg			11/12/21 13:28	1

Client Sample ID: BH03

Lab Sample ID: 890-1538-4
Matrix: Solid
Date Collected: 11/03/21 13:33
Date Received: 11/04/21 08:33
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 18:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 18:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/05/21 11:19*	*11/05/21 18:50*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/05/21 11:19*	*11/05/21 18:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 00:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/07/21 00:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/07/21 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*11/05/21 16:18*	*11/07/21 00:26*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/05/21 16:18*	*11/07/21 00:26*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH03
Date Collected: 11/03/21 13:33
Date Received: 11/04/21 08:33
Sample Depth: 0.5

Lab Sample ID: 890-1538-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.1		4.97		mg/Kg			11/12/21 13:50	1

Client Sample ID: BH03
Date Collected: 11/03/21 13:45
Date Received: 11/04/21 08:33
Sample Depth: 1

Lab Sample ID: 890-1538-5
Matrix: Solid

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		11/05/21 11:19	11/05/21 19:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 19:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 19:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 11:19	11/05/21 19:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 19:11	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 11:19	11/05/21 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*11/05/21 11:19*	*11/05/21 19:11*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/05/21 11:19*	*11/05/21 19:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 00:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/05/21 16:18	11/07/21 00:46	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/05/21 16:18	11/07/21 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*11/05/21 16:18*	*11/07/21 00:46*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/05/21 16:18*	*11/07/21 00:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.3		4.95		mg/Kg			11/12/21 13:58	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH04

Lab Sample ID: 890-1538-6
Matrix: Solid
Date Collected: 11/03/21 13:55
Date Received: 11/04/21 08:33
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 19:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/05/21 11:19*	*11/05/21 19:31*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/05/21 11:19*	*11/05/21 19:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**64.3**		50.0		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 01:06	1
Diesel Range Organics (Over C10-C28)	**64.3**		50.0		mg/Kg		11/05/21 16:18	11/07/21 01:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/07/21 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*11/05/21 16:18*	*11/07/21 01:06*	*1*
o-Terphenyl	*0.1*	*S1-*	*70 - 130*	*11/05/21 16:18*	*11/07/21 01:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.6**		4.95		mg/Kg			11/12/21 14:05	1

Client Sample ID: BH04

Lab Sample ID: 890-1538-7
Matrix: Solid
Date Collected: 11/03/21 14:00
Date Received: 11/04/21 08:33
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		11/05/21 11:19	11/05/21 19:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 19:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 19:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*11/05/21 11:19*	*11/05/21 19:52*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH04

Lab Sample ID: 890-1538-7
Matrix: Solid
Date Collected: 11/03/21 14:00
Date Received: 11/04/21 08:33
Sample Depth: 1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/05/21 11:19*	*11/05/21 19:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 01:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/05/21 16:18	11/07/21 01:26	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/05/21 16:18	11/07/21 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*11/05/21 16:18*	*11/07/21 01:26*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/05/21 16:18*	*11/07/21 01:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.4**		5.00		mg/Kg			11/12/21 14:12	1

Client Sample ID: BH05

Lab Sample ID: 890-1538-8
Matrix: Solid
Date Collected: 11/03/21 14:14
Date Received: 11/04/21 08:33
Sample Depth: 0.5

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		11/05/21 11:19	11/05/21 20:12	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:19	11/05/21 20:12	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:19	11/05/21 20:12	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/05/21 11:19	11/05/21 20:12	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:19	11/05/21 20:12	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/05/21 11:19	11/05/21 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/05/21 11:19*	*11/05/21 20:12*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*11/05/21 11:19*	*11/05/21 20:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**76.6**		50.0		mg/Kg			11/09/21 16:19	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Client Sample ID: BH05 — Lab Sample ID: 890-1538-8

Date Collected: 11/03/21 14:14
Date Received: 11/04/21 08:33
Sample Depth: 0.5
Matrix: Solid

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		11/05/21 16:18	11/07/21 01:46	1
Diesel Range Organics (Over C10-C28)	**76.6**		50.0		mg/Kg		11/05/21 16:18	11/07/21 01:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/07/21 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/05/21 16:18*	*11/07/21 01:46*	*1*
o-Terphenyl	*0.1*	*S1-*	*70 - 130*	*11/05/21 16:18*	*11/07/21 01:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.4**		5.02		mg/Kg			11/12/21 14:20	1

Client Sample ID: BH05 — Lab Sample ID: 890-1538-9

Date Collected: 11/03/21 14:22
Date Received: 11/04/21 08:33
Sample Depth: 1
Matrix: Solid

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		11/05/21 11:19	11/05/21 20:32	1
Toluene	**0.00222**		0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 20:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*11/05/21 11:19*	*11/05/21 20:32*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/05/21 11:19*	*11/05/21 20:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 02:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 02:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 02:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*11/05/21 16:18*	*11/07/21 02:01*	*1*
o-Terphenyl	*120*		*70 - 130*	*11/05/21 16:18*	*11/07/21 02:01*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH05

Lab Sample ID: 890-1538-9
Matrix: Solid
Date Collected: 11/03/21 14:22
Date Received: 11/04/21 08:33
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		4.98		mg/Kg			11/12/21 14:27	1

Client Sample ID: BH06

Lab Sample ID: 890-1538-10
Matrix: Solid
Date Collected: 11/03/21 14:32
Date Received: 11/04/21 08:33
Sample Depth: 0.5 - .

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 20:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:19	11/05/21 20:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:19	11/05/21 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*11/05/21 11:19*	*11/05/21 20:53*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/05/21 11:19*	*11/05/21 20:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 02:21	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/05/21 16:18*	*11/07/21 02:21*	*1*
o-Terphenyl	*115*		*70 - 130*	*11/05/21 16:18*	*11/07/21 02:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		5.00		mg/Kg			11/12/21 14:35	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH06

Lab Sample ID: 890-1538-11
Matrix: Solid
Date Collected: 11/03/21 14:40
Date Received: 11/04/21 08:33
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		11/05/21 16:41	11/06/21 18:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 18:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 18:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 16:41	11/06/21 18:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 18:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 16:41	11/06/21 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/05/21 16:41*	*11/06/21 18:05*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*11/05/21 16:41*	*11/06/21 18:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 03:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 03:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/05/21 16:18*	*11/07/21 03:00*	*1*
o-Terphenyl	*124*		*70 - 130*	*11/05/21 16:18*	*11/07/21 03:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**224**		4.95		mg/Kg			11/15/21 17:33	1

Client Sample ID: BH07

Lab Sample ID: 890-1538-12
Matrix: Solid
Date Collected: 11/03/21 14:50
Date Received: 11/04/21 08:33
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 16:41	11/06/21 18:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 16:41	11/06/21 18:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 16:41	11/06/21 18:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 16:41	11/06/21 18:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 16:41	11/06/21 18:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 16:41	11/06/21 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*11/05/21 16:41*	*11/06/21 18:25*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH07

Lab Sample ID: 890-1538-12
Matrix: Solid
Date Collected: 11/03/21 14:50
Date Received: 11/04/21 08:33
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*11/05/21 16:41*	*11/06/21 18:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	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		11/05/21 16:18	11/07/21 03:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 03:21	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/05/21 16:18*	*11/07/21 03:21*	*1*
o-Terphenyl	*123*		*70 - 130*	*11/05/21 16:18*	*11/07/21 03:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**264**		4.96		mg/Kg			11/15/21 17:40	1

Client Sample ID: BH07

Lab Sample ID: 890-1538-13
Matrix: Solid
Date Collected: 11/03/21 14:58
Date Received: 11/04/21 08:33
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		11/05/21 16:41	11/06/21 18:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/05/21 16:41	11/06/21 18:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/05/21 16:41	11/06/21 18:46	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/05/21 16:41	11/06/21 18:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/05/21 16:41	11/06/21 18:46	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/05/21 16:41	11/06/21 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*11/05/21 16:41*	*11/06/21 18:46*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/05/21 16:41*	*11/06/21 18:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/11/21 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH07

Date Collected: 11/03/21 14:58
Date Received: 11/04/21 08:33
Sample Depth: 1

Lab Sample ID: 890-1538-13

Matrix: Solid

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		11/05/21 16:18	11/07/21 03:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 03:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 16:18	11/07/21 03:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/05/21 16:18*	*11/07/21 03:40*	*1*
o-Terphenyl	*125*		*70 - 130*	*11/05/21 16:18*	*11/07/21 03:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**222**		5.00		mg/Kg			11/10/21 19:43	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

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)
890-1519-A-1-C MS	Matrix Spike	110	101
890-1519-A-1-D MSD	Matrix Spike Duplicate	113	96
890-1538-1	BH01	118	101
890-1538-1 MS	BH01	115	106
890-1538-1 MSD	BH01	117	74
890-1538-2	BH02	119	103
890-1538-3	BH02	124	94
890-1538-4	BH03	120	93
890-1538-5	BH03	129	108
890-1538-6	BH04	119	98
890-1538-7	BH04	115	100
890-1538-8	BH05	120	104
890-1538-9	BH05	128	102
890-1538-10	BH06	138 S1+	107
890-1538-11	BH06	111	70
890-1538-12	BH07	115	95
890-1538-13	BH07	103	102
LCS 880-11477/1-A	Lab Control Sample	105	102
LCS 880-11531/1-A	Lab Control Sample	108	107
LCSD 880-11477/2-A	Lab Control Sample Dup	106	97
LCSD 880-11531/2-A	Lab Control Sample Dup	112	106
MB 880-11476/5-A	Method Blank	128	97
MB 880-11477/5-A	Method Blank	112	96
MB 880-11531/5-A	Method Blank	123	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1538-1	BH01	89	96
890-1538-1 MS	BH01	100	83
890-1538-1 MSD	BH01	117	96
890-1538-2	BH02	115	126
890-1538-3	BH02	93	102
890-1538-4	BH03	86	96
890-1538-5	BH03	97	110
890-1538-6	BH04	90	0.1 S1-
890-1538-7	BH04	86	96
890-1538-8	BH05	113	0.1 S1-
890-1538-9	BH05	105	120
890-1538-10	BH06	102	115
890-1538-11	BH06	113	124
890-1538-12	BH07	113	123
890-1538-13	BH07	113	125

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCS 880-11615/2-A	Lab Control Sample	84	82								
LCSD 880-11615/3-A	Lab Control Sample Dup	96	82								
MB 880-11615/1-A	Method Blank	89	105								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11476/5-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11476

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 23:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 23:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 23:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 23:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 23:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 23:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*11/05/21 09:00*	*11/05/21 23:59*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/05/21 09:00*	*11/05/21 23:59*	*1*

Lab Sample ID: MB 880-11477/5-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 10:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 10:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 10:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 16:41	11/06/21 10:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 16:41	11/06/21 10:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 16:41	11/06/21 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*11/05/21 16:41*	*11/06/21 10:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/05/21 16:41*	*11/06/21 10:53*	*1*

Lab Sample ID: LCS 880-11477/1-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08670		mg/Kg		87	70 - 130		
Toluene			0.100	0.08238		mg/Kg		82	70 - 130		
Ethylbenzene			0.100	0.08292		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1700		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08796		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-11477/2-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08646		mg/Kg		86	70 - 130	0	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

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

Lab Sample ID: LCSD 880-11477/2-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.08498		mg/Kg		85	70 - 130	3	35
Ethylbenzene			0.100	0.08572		mg/Kg		86	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1770		mg/Kg		89	70 - 130	4	35
o-Xylene			0.100	0.08966		mg/Kg		90	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1519-A-1-C MS
Matrix: Solid
Analysis Batch: 11515

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-1519-A-1-D MSD
Matrix: Solid
Analysis Batch: 11515

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

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 880-11531/5-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:19	11/05/21 17:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:21*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:21*	*1*

Lab Sample ID: LCS 880-11531/1-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11531

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08524		mg/Kg		85	70 - 130		
Toluene			0.100	0.08784		mg/Kg		88	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

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

Lab Sample ID: LCS 880-11531/1-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11531

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			0.100	0.09086		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1800		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09060		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-11531/2-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09003		mg/Kg		90	70 - 130	5	35
Toluene			0.100	0.09200		mg/Kg		92	70 - 130	5	35
Ethylbenzene			0.100	0.09994		mg/Kg		100	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.1957		mg/Kg		98	70 - 130	8	35
o-Xylene			0.100	0.09561		mg/Kg		96	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1538-1 MS
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11531

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U F1	0.0996	0.07394		mg/Kg		74	70 - 130		
Toluene	<0.00202	U F1 F2	0.0996	0.07907		mg/Kg		79	70 - 130		
Ethylbenzene	<0.00202	U F1	0.0996	0.08129		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1578		mg/Kg		79	70 - 130		
o-Xylene	<0.00202	U	0.0996	0.07868		mg/Kg		78	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1538-1 MSD
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11531

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.100	0.06575	F1	mg/Kg		65	70 - 130	12	35
Toluene	<0.00202	U F1 F2	0.100	0.05482	F1 F2	mg/Kg		55	70 - 130	36	35
Ethylbenzene	<0.00202	U F1	0.100	0.06434	F1	mg/Kg		64	70 - 130	23	35
m-Xylene & p-Xylene	<0.00403	U F1	0.201	0.1183	F1	mg/Kg		58	70 - 130	29	35
o-Xylene	<0.00202	U	0.100	0.08815		mg/Kg		87	70 - 130	11	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	74		70 - 130

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

Lab Sample ID: MB 880-11615/1-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11615

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		11/05/21 16:18	11/06/21 21:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/06/21 21:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 16:18	11/06/21 21:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	11/05/21 16:18	11/06/21 21:43	1
o-Terphenyl	105		70 - 130	11/05/21 16:18	11/06/21 21:43	1

Lab Sample ID: LCS 880-11615/2-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11615

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	766.0		mg/Kg		77	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	781.5		mg/Kg		78	70 - 130		

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

Lab Sample ID: LCSD 880-11615/3-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11615

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	798.4		mg/Kg		80	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	753.8		mg/Kg		75	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	82		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

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

Lab Sample ID: 890-1538-1 MS
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11615

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 F2	997	954.8		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	857.4		mg/Kg		83	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

Lab Sample ID: 890-1538-1 MSD
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 11615

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 F2	1000	1268	F2	mg/Kg		127	70 - 130	28	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	990.7		mg/Kg		97	70 - 130	14	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11669/1-A
Matrix: Solid
Analysis Batch: 11847

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			11/10/21 12:24	1

Lab Sample ID: LCS 880-11669/2-A
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	249.5		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-11669/3-A
Matrix: Solid
Analysis Batch: 11847

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	250.1		mg/Kg		100	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1527-A-10-E MS
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	22.7		253	273.2		mg/Kg		99	90 - 110

Lab Sample ID: 890-1527-A-10-F MSD
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	22.7		250	263.3		mg/Kg		96	90 - 110	4	20

Lab Sample ID: MB 880-11670/1-A
Matrix: Solid
Analysis Batch: 11952

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			11/12/21 08:26	1

Lab Sample ID: LCS 880-11670/2-A
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.2		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-11670/3-A
Matrix: Solid
Analysis Batch: 11952

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	249.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1538-1 MS
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2380		1250	3681		mg/Kg		104	90 - 110

Lab Sample ID: 890-1538-1 MSD
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2380		1250	3702		mg/Kg		106	90 - 110	1	20

Lab Sample ID: MB 880-11671/1-A
Matrix: Solid
Analysis Batch: 11955

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			11/15/21 13:59	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-11671/2-A
Matrix: Solid
Analysis Batch: 11955

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	259.1		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-11671/3-A
Matrix: Solid
Analysis Batch: 11955

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	260.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-8014-A-11-E MS
Matrix: Solid
Analysis Batch: 11955

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	30.8		250	295.5		mg/Kg		106	90 - 110		

Lab Sample ID: 880-8014-A-11-F MSD
Matrix: Solid
Analysis Batch: 11955

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	30.8		250	287.2		mg/Kg		103	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

GC VOA

Prep Batch: 11476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11476/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-11	BH06	Total/NA	Solid	5035	
890-1538-12	BH07	Total/NA	Solid	5035	
890-1538-13	BH07	Total/NA	Solid	5035	
MB 880-11477/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11477/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11477/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 11515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-11	BH06	Total/NA	Solid	8021B	11477
890-1538-12	BH07	Total/NA	Solid	8021B	11477
890-1538-13	BH07	Total/NA	Solid	8021B	11477
MB 880-11476/5-A	Method Blank	Total/NA	Solid	8021B	11476
MB 880-11477/5-A	Method Blank	Total/NA	Solid	8021B	11477
LCS 880-11477/1-A	Lab Control Sample	Total/NA	Solid	8021B	11477
LCSD 880-11477/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11477
890-1519-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	
890-1519-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	

Prep Batch: 11531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Total/NA	Solid	5035	
890-1538-2	BH02	Total/NA	Solid	5035	
890-1538-3	BH02	Total/NA	Solid	5035	
890-1538-4	BH03	Total/NA	Solid	5035	
890-1538-5	BH03	Total/NA	Solid	5035	
890-1538-6	BH04	Total/NA	Solid	5035	
890-1538-7	BH04	Total/NA	Solid	5035	
890-1538-8	BH05	Total/NA	Solid	5035	
890-1538-9	BH05	Total/NA	Solid	5035	
890-1538-10	BH06	Total/NA	Solid	5035	
MB 880-11531/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11531/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11531/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1538-1 MS	BH01	Total/NA	Solid	5035	
890-1538-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 11601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Total/NA	Solid	8021B	11531
890-1538-2	BH02	Total/NA	Solid	8021B	11531
890-1538-3	BH02	Total/NA	Solid	8021B	11531
890-1538-4	BH03	Total/NA	Solid	8021B	11531
890-1538-5	BH03	Total/NA	Solid	8021B	11531
890-1538-6	BH04	Total/NA	Solid	8021B	11531
890-1538-7	BH04	Total/NA	Solid	8021B	11531
890-1538-8	BH05	Total/NA	Solid	8021B	11531

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

GC VOA (Continued)

Analysis Batch: 11601 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-9	BH05	Total/NA	Solid	8021B	11531
890-1538-10	BH06	Total/NA	Solid	8021B	11531
MB 880-11531/5-A	Method Blank	Total/NA	Solid	8021B	11531
LCS 880-11531/1-A	Lab Control Sample	Total/NA	Solid	8021B	11531
LCSD 880-11531/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11531
890-1538-1 MS	BH01	Total/NA	Solid	8021B	11531
890-1538-1 MSD	BH01	Total/NA	Solid	8021B	11531

Analysis Batch: 12040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Total/NA	Solid	Total BTEX	
890-1538-2	BH02	Total/NA	Solid	Total BTEX	
890-1538-3	BH02	Total/NA	Solid	Total BTEX	
890-1538-4	BH03	Total/NA	Solid	Total BTEX	
890-1538-5	BH03	Total/NA	Solid	Total BTEX	
890-1538-6	BH04	Total/NA	Solid	Total BTEX	
890-1538-7	BH04	Total/NA	Solid	Total BTEX	
890-1538-8	BH05	Total/NA	Solid	Total BTEX	
890-1538-9	BH05	Total/NA	Solid	Total BTEX	
890-1538-10	BH06	Total/NA	Solid	Total BTEX	
890-1538-11	BH06	Total/NA	Solid	Total BTEX	
890-1538-12	BH07	Total/NA	Solid	Total BTEX	
890-1538-13	BH07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Total/NA	Solid	8015NM Prep	
890-1538-2	BH02	Total/NA	Solid	8015NM Prep	
890-1538-3	BH02	Total/NA	Solid	8015NM Prep	
890-1538-4	BH03	Total/NA	Solid	8015NM Prep	
890-1538-5	BH03	Total/NA	Solid	8015NM Prep	
890-1538-6	BH04	Total/NA	Solid	8015NM Prep	
890-1538-7	BH04	Total/NA	Solid	8015NM Prep	
890-1538-8	BH05	Total/NA	Solid	8015NM Prep	
890-1538-9	BH05	Total/NA	Solid	8015NM Prep	
890-1538-10	BH06	Total/NA	Solid	8015NM Prep	
890-1538-11	BH06	Total/NA	Solid	8015NM Prep	
890-1538-12	BH07	Total/NA	Solid	8015NM Prep	
890-1538-13	BH07	Total/NA	Solid	8015NM Prep	
MB 880-11615/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11615/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11615/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1538-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-1538-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Total/NA	Solid	8015B NM	11615
890-1538-2	BH02	Total/NA	Solid	8015B NM	11615

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

GC Semi VOA (Continued)

Analysis Batch: 11626 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-3	BH02	Total/NA	Solid	8015B NM	11615
890-1538-4	BH03	Total/NA	Solid	8015B NM	11615
890-1538-5	BH03	Total/NA	Solid	8015B NM	11615
890-1538-6	BH04	Total/NA	Solid	8015B NM	11615
890-1538-7	BH04	Total/NA	Solid	8015B NM	11615
890-1538-8	BH05	Total/NA	Solid	8015B NM	11615
890-1538-9	BH05	Total/NA	Solid	8015B NM	11615
890-1538-10	BH06	Total/NA	Solid	8015B NM	11615
890-1538-11	BH06	Total/NA	Solid	8015B NM	11615
890-1538-12	BH07	Total/NA	Solid	8015B NM	11615
890-1538-13	BH07	Total/NA	Solid	8015B NM	11615
MB 880-11615/1-A	Method Blank	Total/NA	Solid	8015B NM	11615
LCS 880-11615/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11615
LCSD 880-11615/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11615
890-1538-1 MS	BH01	Total/NA	Solid	8015B NM	11615
890-1538-1 MSD	BH01	Total/NA	Solid	8015B NM	11615

Analysis Batch: 11856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Total/NA	Solid	8015 NM	
890-1538-2	BH02	Total/NA	Solid	8015 NM	
890-1538-3	BH02	Total/NA	Solid	8015 NM	
890-1538-4	BH03	Total/NA	Solid	8015 NM	
890-1538-5	BH03	Total/NA	Solid	8015 NM	
890-1538-6	BH04	Total/NA	Solid	8015 NM	
890-1538-7	BH04	Total/NA	Solid	8015 NM	
890-1538-8	BH05	Total/NA	Solid	8015 NM	
890-1538-9	BH05	Total/NA	Solid	8015 NM	
890-1538-10	BH06	Total/NA	Solid	8015 NM	
890-1538-11	BH06	Total/NA	Solid	8015 NM	
890-1538-12	BH07	Total/NA	Solid	8015 NM	
890-1538-13	BH07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-13	BH07	Soluble	Solid	DI Leach	
MB 880-11669/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11669/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11669/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1527-A-10-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1527-A-10-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 11670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Soluble	Solid	DI Leach	
890-1538-2	BH02	Soluble	Solid	DI Leach	
890-1538-3	BH02	Soluble	Solid	DI Leach	
890-1538-4	BH03	Soluble	Solid	DI Leach	
890-1538-5	BH03	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

HPLC/IC (Continued)

Leach Batch: 11670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-6	BH04	Soluble	Solid	DI Leach	
890-1538-7	BH04	Soluble	Solid	DI Leach	
890-1538-8	BH05	Soluble	Solid	DI Leach	
890-1538-9	BH05	Soluble	Solid	DI Leach	
890-1538-10	BH06	Soluble	Solid	DI Leach	
MB 880-11670/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11670/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11670/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1538-1 MS	BH01	Soluble	Solid	DI Leach	
890-1538-1 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 11671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-11	BH06	Soluble	Solid	DI Leach	
890-1538-12	BH07	Soluble	Solid	DI Leach	
MB 880-11671/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11671/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11671/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8014-A-11-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-8014-A-11-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-13	BH07	Soluble	Solid	300.0	11669
MB 880-11669/1-A	Method Blank	Soluble	Solid	300.0	11669
LCS 880-11669/2-A	Lab Control Sample	Soluble	Solid	300.0	11669
LCSD 880-11669/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11669
890-1527-A-10-E MS	Matrix Spike	Soluble	Solid	300.0	11669
890-1527-A-10-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11669

Analysis Batch: 11952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-1	BH01	Soluble	Solid	300.0	11670
890-1538-2	BH02	Soluble	Solid	300.0	11670
890-1538-3	BH02	Soluble	Solid	300.0	11670
890-1538-4	BH03	Soluble	Solid	300.0	11670
890-1538-5	BH03	Soluble	Solid	300.0	11670
890-1538-6	BH04	Soluble	Solid	300.0	11670
890-1538-7	BH04	Soluble	Solid	300.0	11670
890-1538-8	BH05	Soluble	Solid	300.0	11670
890-1538-9	BH05	Soluble	Solid	300.0	11670
890-1538-10	BH06	Soluble	Solid	300.0	11670
MB 880-11670/1-A	Method Blank	Soluble	Solid	300.0	11670
LCS 880-11670/2-A	Lab Control Sample	Soluble	Solid	300.0	11670
LCSD 880-11670/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11670
890-1538-1 MS	BH01	Soluble	Solid	300.0	11670
890-1538-1 MSD	BH01	Soluble	Solid	300.0	11670

Analysis Batch: 11955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-11	BH06	Soluble	Solid	300.0	11671

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

HPLC/IC (Continued)

Analysis Batch: 11955 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1538-12	BH07	Soluble	Solid	300.0	11671
MB 880-11671/1-A	Method Blank	Soluble	Solid	300.0	11671
LCS 880-11671/2-A	Lab Control Sample	Soluble	Solid	300.0	11671
LCSD 880-11671/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11671
880-8014-A-11-E MS	Matrix Spike	Soluble	Solid	300.0	11671
880-8014-A-11-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11671

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH01
Date Collected: 11/03/21 10:45
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 17:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/06/21 22:45	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		5			11952	11/12/21 12:59	SC	XEN MID

Client Sample ID: BH02
Date Collected: 11/03/21 13:12
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 18:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/06/21 23:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		5			11952	11/12/21 13:21	SC	XEN MID

Client Sample ID: BH02
Date Collected: 11/03/21 13:20
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 18:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 00:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 13:28	SC	XEN MID

Client Sample ID: BH03
Date Collected: 11/03/21 13:33
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 18:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH03

Date Collected: 11/03/21 13:33
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 00:26	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 13:50	SC	XEN MID

Client Sample ID: BH03

Date Collected: 11/03/21 13:45
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 19:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 00:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 13:58	SC	XEN MID

Client Sample ID: BH04

Date Collected: 11/03/21 13:55
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 19:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 01:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 14:05	SC	XEN MID

Client Sample ID: BH04

Date Collected: 11/03/21 14:00
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 19:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 01:26	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Client Sample ID: BH04 — Lab Sample ID: 890-1538-7

Date Collected: 11/03/21 14:00 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 14:12	SC	XEN MID

Client Sample ID: BH05 — Lab Sample ID: 890-1538-8

Date Collected: 11/03/21 14:14 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 20:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 01:46	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 14:20	SC	XEN MID

Client Sample ID: BH05 — Lab Sample ID: 890-1538-9

Date Collected: 11/03/21 14:22 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 20:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 02:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 14:27	SC	XEN MID

Client Sample ID: BH06 — Lab Sample ID: 890-1538-10

Date Collected: 11/03/21 14:32 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11531	11/05/21 11:19	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11601	11/05/21 20:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 02:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1			11952	11/12/21 14:35	SC	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Client Sample ID: BH06
Date Collected: 11/03/21 14:40
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	11477	11/05/21 16:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11515	11/06/21 18:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 03:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	11671	11/08/21 11:29	CH	XEN MID
Soluble	Analysis	300.0		1			11955	11/15/21 17:33	CH	XEN MID

Client Sample ID: BH07
Date Collected: 11/03/21 14:50
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11477	11/05/21 16:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11515	11/06/21 18:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 03:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	11671	11/08/21 11:29	CH	XEN MID
Soluble	Analysis	300.0		1			11955	11/15/21 17:40	CH	XEN MID

Client Sample ID: BH07
Date Collected: 11/03/21 14:58
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1538-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	11477	11/05/21 16:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11515	11/06/21 18:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12040	11/11/21 14:14	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	11615	11/05/21 16:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/07/21 03:40	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	11669	11/08/21 11:25	CH	XEN MID
Soluble	Analysis	300.0		1			11847	11/10/21 19:43	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1538-1
Project/Site: RDX Federal 21 #42 SDG: 31403360.008

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: RDX Federal 21 #42

Job ID: 890-1538-1
SDG: 31403360.008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1538-1	BH01	Solid	11/03/21 10:45	11/04/21 08:33	0.5
890-1538-2	BH02	Solid	11/03/21 13:12	11/04/21 08:33	0.5
890-1538-3	BH02	Solid	11/03/21 13:20	11/04/21 08:33	1
890-1538-4	BH03	Solid	11/03/21 13:33	11/04/21 08:33	0.5
890-1538-5	BH03	Solid	11/03/21 13:45	11/04/21 08:33	1
890-1538-6	BH04	Solid	11/03/21 13:55	11/04/21 08:33	0.5
890-1538-7	BH04	Solid	11/03/21 14:00	11/04/21 08:33	1
890-1538-8	BH05	Solid	11/03/21 14:14	11/04/21 08:33	0.5
890-1538-9	BH05	Solid	11/03/21 14:22	11/04/21 08:33	1
890-1538-10	BH06	Solid	11/03/21 14:32	11/04/21 08:33	0.5 - .
890-1538-11	BH06	Solid	11/03/21 14:40	11/04/21 08:33	1
890-1538-12	BH07	Solid	11/03/21 14:50	11/04/21 08:33	0.5
890-1538-13	BH07	Solid	11/03/21 14:58	11/04/21 08:33	1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Project Manager:	Dan Moir	Bill to: (if different)	Jim Raley
Company Name:	WSP Permian office	Company Name:	WPX Energy
Address:	3300 North A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM, 88220
Phone:	(432) 236-3849	Email:	Elliot.Lee@wsp.com, Anna.Byers@wsp.com

Work Order Comments

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

Project Name:	RDX Federal 21 # 42	Turn Around	
Project Number:	31403360.008	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Elliot Lee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0 / 2.8	Thermometer ID	TNM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	11/3/2021	10:45	0.5'	1	X	X	X
BH02	S	11/3/2021	13:12	0.5'	1	X	X	X
BH02	S	11/3/2021	13:20	1'	1	X	X	X
BH03	S	11/3/2021	13:33	0.5'	1	X	X	X
BH03	S	11/3/2021	13:45	1'	1	X	X	X
BH04	S	11/3/2021	13:55	0.5'	1	X	X	X
BH04	S	11/3/2021	14:00	1'	1	X	X	X
BH05	S	11/3/2021	14:14	0.5'	1	X	X	X
BH05	S	11/3/2021	14:22	1'	1	X	X	X
BH06	S	11/3/2021	14:32	0.5'	1	X	X	X

ANALYSIS REQUEST

890-1538 Chain of Custody

Work Order Notes

Incident # NAPP2124349541

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

Sample Comments

Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cee Cuff	11.4.21 0833	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Jim Raley
Company Name:	WSP Permian office	Company Name:	WPX Energy
Address:	3300 North A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM, 88220
Phone:	(432) 236-3849	Email:	Elliot.Lee@wsp.com, Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDX Federal 21 # 42	Turn Around	
Project Number:	31403360.008	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Elliot Lee	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Work Order Notes / Sample Comments
BH06	S	11/3/2021	14:40	1'	1	X	X	X	Discrete
BH07	S	11/3/2021	14:50	0.5'	1	X	X	X	Discrete
BH07	S	11/3/2021	14:58	1'	1	X	X	X	Discrete

ANALYSIS REQUEST

Work Order Notes: Incident # NAPP2124349541

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-4-21 0853	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-1538-1
Address: 1211 W Florida Ave,	Due Date Requested: 11/10/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDX Federal 21 #42	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8016MOD_NM/8016NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
BH01 (890-1538-1)	11/3/21	10 45 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-1538-2)	11/3/21	13 12 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-1538-3)	11/3/21	13 20 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-1538-4)	11/3/21	13 33 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-1538-5)	11/3/21	13 45 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-1538-6)	11/3/21	13 55 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-1538-7)	11/3/21	14 00 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-1538-8)	11/3/21	14 14 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-1538-9)	11/3/21	14 22 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Dave Cuff 11-4-21			Kramer	11 5 21	
Relinquished by	Date/Time	Company	Received by	Date/Time 1304	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.6/4.7

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 2
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-1538-1
Address: 1211 W Florida Ave	Due Date Requested: 11/10/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDX Federal 21 #42	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
BH06 (890-1538-10)	11/3/21	14 32 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-1538-11)	11/3/21	14 40 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-1538-12)	11/3/21	14 50 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-1538-13)	11/3/21	14 58 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification
Unconfirmed

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

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

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by: Alex Cap 11-4-21	Date/Time	Company	Received by: [signature]	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1538-1
SDG Number: 31403360.008

Login Number: 1538
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1538-1
SDG Number: 31403360.008

Login Number: 1538
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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 63625

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 63625
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	12/21/2021