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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 01 2017
RECEIVED

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1730640185

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company RKI Exploration/WPX Energy 246289	Contact Jim Raley
Address 5315 Buena Vista Dr	Telephone No. 575-689-7597
Facility Name RDX Federal 21-43	Facility Type Well Pad

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-40997

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	21	26S	30E	715	South	2135	East	Eddy

Latitude_32.02245538 **Longitude**_-103.8840112_NAD 83

NATURE OF RELEASE

Type of Release Oil Emulsion Spill	Volume of Release 7 bbls	Volume Recovered 0
Source of Release Stuffing Box	Date and Hour of Occurrence 10/21/2017	Date and Hour of Discovery 10/21/2017 2:10 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD: Crystal Weaver and Mike Bratcher, BLM Shelly Tucker	
By Whom? Jim Raley	Date and Hour 10/23/2017, 9:06 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; stuffing box developed small leak. Approximately 7 bbls of oil and water was spilled on location. Well was shut in and repairs made to equipment.

Describe Area Affected and Cleanup Action Taken.*

The impacted area was immediately mapped with a Trimble to delineate the horizontal extent of the impacts. Soils impacted by this spill will be removed and transported to disposal. Confirmation samples will be collected and analyzed for TPH, BTEX and Chlorides. The laboratory results will be submitted to OCD for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Karolina Blaney

Printed Name: Karolina Blaney

Title: Environmental Specialist

E-mail Address: karolina.blaney@wpxenergy.com

Date: 11/1/2017 Phone: 970-589-0743

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 11/2/17 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐ 2RP-4464

* Attach Additional Sheets If Necessary

Incident ID	NAB1730640185
District RP	2RP-4464
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAB1730640185
District RP	2RP-4464
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: Lynda Laumbach Title: Environmental Professional

Signature: Lynda Laumbach Date: 05/21/2021

email: Lynda.Laumbach@dvn.com Telephone: (575)725-1647

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1730640185
District RP	2RP-4464
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: Lynda Laumbach Title: Environmental Professional

Signature: Lynda Laumbach Date: 05/21/2021

email: Lynda.Laumbach@dvn.com Telephone: (575)725-1647

OCD Only

Received by: OCD Date: 9/8/2021

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: Ashley Maxwell Date: 9/14/2022

Printed Name: Ashley Maxwell Title: Environmental Specialist

May 21, 2021
Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210

Re: RDX Federal 21 #043 Release Closure Request (NAB1730640185)

Mr. Bratcher,

This report summarizes the sampling activities at the RDX Federal 21 #043 well pad (Site). The site map is provided as Figure 01. On October 21, 2017, the stuffing box developed a small leak causing 7 barrels of mixed production fluids (oil and produced water) to be released around the wellhead. No fluids were reported to have been recovered.

Well Location: RDX Federal 21 #043
*API #:*30-015-40997
NMOCD Reference #: NAB1730640185
Site Location Description: Unit Letter O, Section 21, Township 26S, Range 30E
Release Latitude/Longitude: N32.02261, W103.88458
Land Jurisdiction: Federal
Estimated Depth to Groundwater: >100 feet, Attachment 01 Water Wells
NMOCD Site Characterization Standards: 20,000 milligrams per kilogram (mg/kg) Chloride, 50 mg/kg Benzene, Toluene, Ethylbenzene, and xylenes (BTEX), 10 mg/kg Benzene, 2,500 mg/kg Total Petroleum Hydrocarbons (TPH), 1,000 mg/kg diesel range organics (DRO) & gasoline range organics (GRO)
∗Characterization in C-141 at the beginning of this report

Field Activities
On January 22, 2020, personnel were onsite to delineate the release area and collect samples TT1 through TT4 at depths of 2 to 10 feet below ground surface (bgs). On May 12, 2021, the location was revisited to collect delineation samples at depths 0.5 and 1 foot bgs, outside of the initial release area. All delineation sample locations and the release area are depicted in Figure 02 and photographs of the location are in Attachment 02.

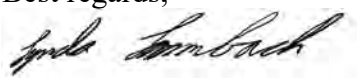
Sampling Activities and Laboratory Analytical Results
Delineation samples were taken via one-point discrete sampling. All delineation samples taken on January 22, 2020 confirm complete vertical delineation. All delineation samples taken on May 12, 2021 were below the allowable standards for Chlorides, BTEX, and TPH and confirm complete lateral delineation of the release. All sample results are summarized in Table 01 and Table 02 and complete lab results are provided in Attachment 03.

- Chlorides analysis ranged from 25 mg/kg to 7,190 mg/kg
- BTEX analysis was below the Laboratory detectable limit
- TPH analysis was below the Laboratory detectable limit

Conclusions

The laboratory analytical results to address the impacted soils from NAB1730640185 demonstrates compliance with the Table 1 Closure Criteria set forth by the NMOCD. Actions to mitigate initial impacts of this site have proven a successful remediation. WPX requests no further action for this incident. The updated C-141 is included at the front of this report. If any questions or further information is warranted, please do not hesitate to contact me by cell phone at (575) 725-1647 or by email at Lynda.Laumbach@dvn.com.

Best regards,

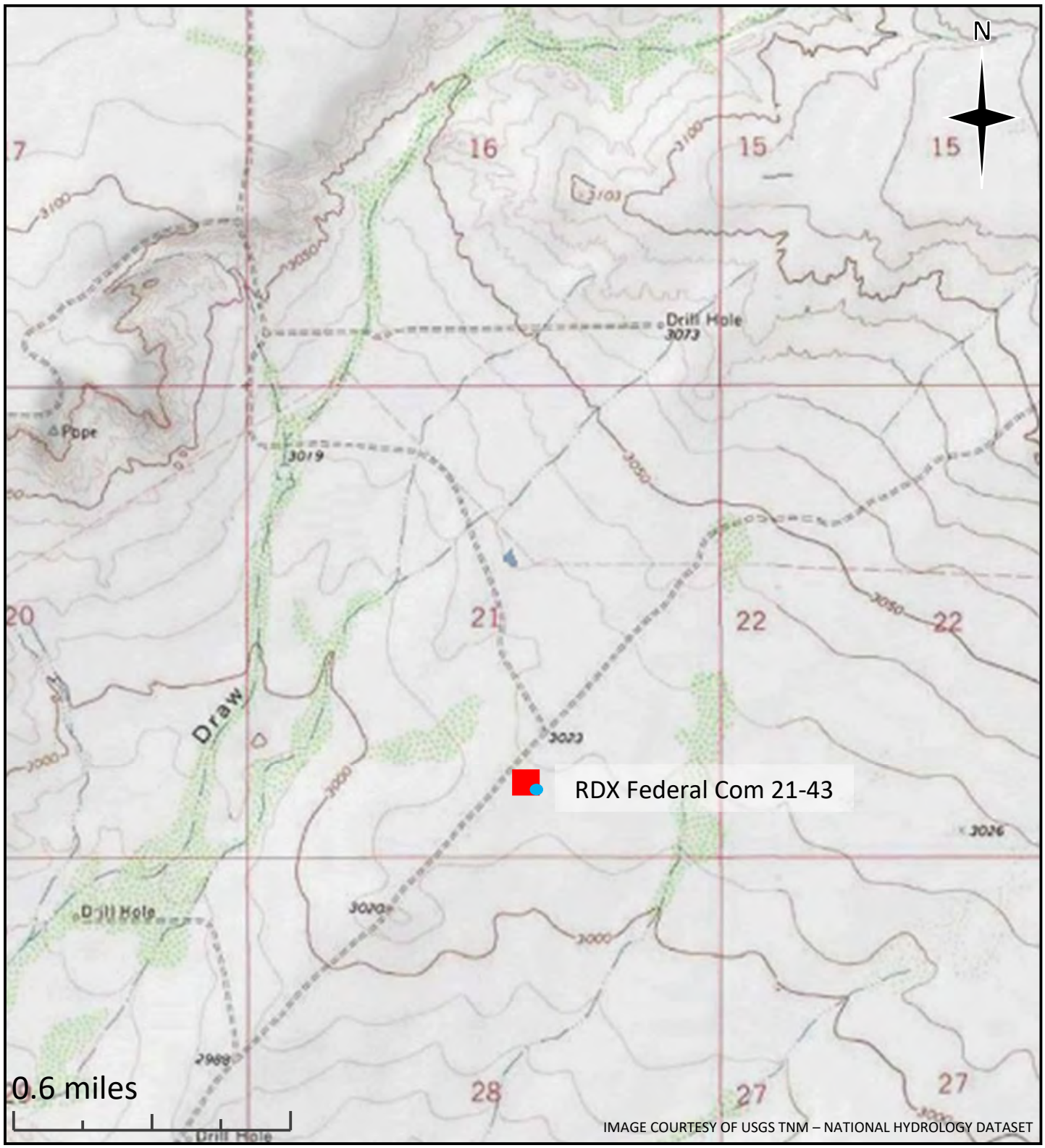


Lynda Laumbach
Environmental Professional

CC: Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Chad Hensley, NMOCD

Attachments:
Figure 01 Site Map
Figure 02 Delineation Activities
Table 01 Delineation Results January 20, 2020
Table 02 Delineation Results May 12, 2021
Attachment 01 RDX/RDU Depth to Water Report
Attachment 02 Photograph Log
Attachment 03 Laboratory Analytical Results

Figures



WPXENERGY

Legend

- WPX Wells (DTW determination)
- Site Location

Figure 01
RDX 21 Federal #043
30-015-40997

Permian Basin, Eddy County, NM

N32.02261, W103.88458

WPXENERGY

Legend

X Point of Release

Release Extent

Figure 02
RDX 21 Federal #043
30-015-40997

Permian Basin, Eddy County, NM

N32.02261, W103.88458

Table(s)

TABLE 01
SOIL SAMPLE ANALYTICAL RESULTS

RDX FEDERAL 21 #043
NMOCD REFERENCE NUMBER: NAB1730640185 (2RP-4464)

Sample Name	Depth (ft bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
TT1	2	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	7190
TT1	6	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	520
TT2	2	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	636
TT2	6	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	238
TT3	2	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	3560
TT3	8	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	563
TT4	2	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	6600
TT4	10	1/22/2020	<0.0250	-	<20.0	<25.0	<50.0	-	-	583
NMOCD Table 1 Closure Criteria			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**

Reference:	BTEX: benzene, toluene, ethylbenzene, and total xylenes	mg/kg: milligrams per kilogram
	GRO: gasoline range organics	NMOCD: New Mexico Oil Conservation Division
	DRO: diesel range organics	TPH: total petroleum hydrocarbons
	ft bgs: feet below ground surface	
	NMOCD Table 1 Closure Criteria: NMAC 19.15.29 August 2018 criteria for soils impacted based on characterization	

All samples were taken with decontaminated equipment, jarred in precleaned glass soil jars, with appropriate identification, and immediately placed on ice to lower sample temperatures below 4° Celsius, adhering to strict chain of custody of Xenco laboratories. Analysis was completed at Xenco Laboratories in Carlsbad, NM. All samples were analyzed for Chlorides via Method EPA 300.0, TPH via Method 8015M, and BTEX via Method 8021B.

TABLE 02
SOIL SAMPLE ANALYTICAL RESULTS

RDX FEDERAL 21 #043
NMOCD REFERENCE NUMBER: NAB1730640185 (2RP-4464)

Sample Name	Depth (ft bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
DS01	0.5	5/12/2021	<0.00199	-	<49.9	<49.9	<49.9	-	-	35
DS01A	1	5/12/2021	<0.00202	-	<49.8	<49.8	<49.8	-	-	38
DS02	0.5	5/12/2021	<0.00202	-	<49.8	<49.8	<49.8	-	-	472
DS02A	1	5/12/2021	<0.00201	-	<49.9	<49.9	<49.9	-	-	456
DS03	0.5	5/12/2021	<0.00201	-	<49.9	<49.9	<49.9	-	-	369
DS03A	1	5/12/2021	<0.00200	-	<49.9	<49.9	<49.9	-	-	466
DS04	0.5	5/12/2021	<0.00200	-	<50.0	<50.0	<50.0	-	-	27
DS04A	1	5/12/2021	<0.00199	-	<50.0	<50.0	<50.0	-	-	330
DS05	0.5	5/12/2021	<0.00198	-	<49.9	<49.9	<49.9	-	-	103
DS05A	1	5/12/2021	<0.00200	-	<50.0	<50.0	<50.0	-	-	167
DS06	0.5	5/12/2021	<0.00202	-	<49.8	<49.8	<49.8	-	-	292
DS06A	1	5/12/2021	<0.00201	-	<49.9	<49.9	<49.9	-	-	25
NMOCD Table 1 Closure Criteria			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**

Reference:
BTEX: benzene, toluene, ethylbenzene, and total xylenes
GRO: gasoline range organics
DRO: diesel range organics
ft bgs: feet below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
TPH: total petroleum hydrocarbons
NMOCD Table 1 Closure Criteria: NMAC 19.15.29 August 2018 criteria for soils impacted based on characterization
* Samples were field screened with Hach® Chloride strips

All samples were taken with decontaminated equipment, jarred in precleaned glass soil jars, with appropriate identification, and immediately placed on ice to lower sample temperatures below 4° Celsius, adhering to strict chain of custody of Xenco laboratories. Analysis was completed at Xenco Laboratories in Carlsbad, NM. All samples were analyzed for Chlorides via Method EPA 300.0, TPH via Method 8015M, and BTEX via Method 8021B.

Attachment 02:

RDX/ RDU Depth to Water Report

WPXENERGY

Earth Systems
Response & Restoration

Site Investigation Report

Date of report:	1/5/2021	
Site Names:	RDX 16-25	Ross Draw Unit #38
	RDX 17 #3	Ross Draw Unit #55
	RDX Fed Com 17-44H	Ross Draw Unit #57
	RDX Fed Com 21-43	N Brushy Fed 35 #010H
County:	Eddy County, New Mexico	
Project No:	0397	

Site Activities

Earth Systems Response and Restoration (ESRR) field activities were conducted December 8th through the 10th in Eddy county, New Mexico. ESRR oversaw the advancement of one soil boring at the eight above-mentioned locations to an approximate depth of 105 feet (ft.) below grade surface utilizing an air-rotary drilling rig operated by a State of New Mexico licensed driller. Additionally, HRL Compliance Solutions (HRL) conducted on-site soil logging activities during the advancement of the soil borings. Please see the detailed lithologic descriptions attached.

Upon completion of the soil borings, a PVC casing fitted with 5 ft. of machine-slotted well screen at the bottom was inserted into each soil boring. The PVC casing was left in place for a minimum of 72 hours prior to being gauged by HRL Consulting on December 12th with a water level meter to determine the presence or absence of groundwater. Subsequent to gauging activities, each soil boring had the PVC casing removed and was then backfilled with its associated native soil cuttings to grade surface.

Conclusions

Groundwater was not detected in any of the eight soil borings as determined by utilizing a water level meter after 72 hours of development. It can be reasonably determined groundwater is deeper than 105 ft. bgs in the vicinity of the advanced soil borings.

Respectfully,

K. Williams

Kris Williams, CHMM, REM
Operations Manager

Attached: Drilling Locations Maps
Soil Boring Logs

Earth Systems
Response & Restoration

Drilling Location Site Map		
RDX 16-25	(32.039900, -103.883337)	Ross Draw Unit #38
RDX 17 #3	(32.036765, -103.895993)	Ross Draw Unit #55
RDX Federal Com 17-44H	(32.049656, -103.904054)	Ross Draw Unit #57
RDX Federal Com 21-43	(32.022571, -103.884371)	

Earth Systems
Response & Restoration

Drilling Location Site Map

North Brushy Federal 35 #010H (32.079909, -103.951386)
RDX Federal Com 17-44H (32.049656, -103.904054)

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: 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										

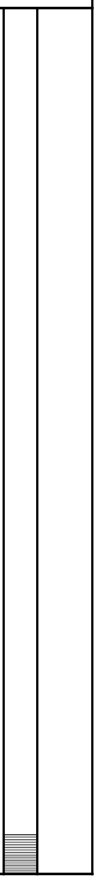
HRL COMPLIANCE SOLUTIONS

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
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									

Well Completion



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: 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: 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
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"									

Well Completion

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										

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: North Brushy Federal 35 # 010H	
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: 32.079909
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-100 feet bgs		Boring Total Depth (ft. BGS): 105	Longitude: -103.951386
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	CE	NS	Buff to pale pink caliche	
5										
10										
15										
20	NM	L	D	N	N	NM	SM	NS	Tan to pale red silty sand	
25										
30										
35										
40										
45										
50										
55	NM	M	M	N	N	NM	ML	NS	Tan to pale red sandy silt with minor medium sand	
60										
65	NM	H	M	N	N	NM	CL	NS	Tan clay with minor gravel	
70	NM	L	D	N	N	NM	SP	NS	Pale red poorly graded fine sand with minor silt	
75										
80										
85	NM	H	D/SLM	N	N	NM	CL	NS	Grey sandy lean clay with minor medium sand and minor angular gravel	
90	NM	M/H	M	N	N	NM	CL	NS	Brown with orange sandy lean clay with minor medium sand and angular gravel - TD Boring: 105'	
95										
100										

Attachment 02

Picture 1-North face	Picture 2-South east face
15-Jan-20 	15-Jan-20 
Picture 3- East face	**Picture 4- East face, west of pumpjack**
12-May-21 	12-May-21 

Attachment 03

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-664-1
Client Project/Site: RDX Federal 21-43

For:
WPX Energy Production LLC
5315 Buena Vista Dr
Carlsbad, New Mexico 88220

Attn: Lynda Laumbach

JKramer

Authorized for release by:
5/18/2021 3:01:47 PM

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

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Laboratory Job ID: 890-664-1

Table of Contents

Definitions/Glossary

Client: WPX Energy Production LLC Job ID: 890-664-1
Project/Site: RDX Federal 21-43

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Job ID: 890-664-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-664-1

Comments
No additional comments.

Receipt
The samples were received on 5/13/2021 8:56 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2º C.

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-3119 and analytical batch 880-3103 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: DS01A (890-664-2), DS05 (890-664-9) and DS06A (890-664-12). The sample(s) shows evidence of matrix interference.

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

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 880-3152 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.The associated samples are: DS01 (890-664-1), DS01A (890-664-2) and DS02 (890-664-3).

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

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

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

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS01

Lab Sample ID: 890-664-1

Date Collected: 05/12/21 12:00
Matrix: Solid
Date Received: 05/13/21 08:56
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		05/14/21 13:30	05/15/21 03:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/14/21 13:30	05/15/21 03:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/14/21 13:30	05/15/21 03:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/14/21 13:30	05/15/21 03:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/14/21 13:30	05/15/21 03:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/14/21 13:30	05/15/21 03:43	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/14/21 13:30	05/15/21 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/14/21 13:30*	*05/15/21 03:43*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/14/21 13:30*	*05/15/21 03:43*	*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		05/14/21 13:14	05/15/21 18:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 18:13	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 18:13	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*05/14/21 13:14*	*05/15/21 18:13*	*1*
o-Terphenyl	*102*		*70 - 130*	*05/14/21 13:14*	*05/15/21 18:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.4**		4.99		mg/Kg			05/17/21 10:46	1

Client Sample ID: DS01A

Lab Sample ID: 890-664-2

Date Collected: 05/12/21 12:05
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:04	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:04	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:04	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/14/21 13:30	05/15/21 04:04	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:04	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/14/21 13:30	05/15/21 04:04	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		05/14/21 13:30	05/15/21 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*05/14/21 13:30*	*05/15/21 04:04*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/14/21 13:30*	*05/15/21 04:04*	*1*

Client Sample Results

Client: WPX Energy Production LLC
Job ID: 890-664-1
Project/Site: RDX Federal 21-43

Client Sample ID: DS01A
Lab Sample ID: 890-664-2
Date Collected: 05/12/21 12:05
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:16	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:16	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:16	1
Total TPH	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*05/14/21 13:14*	*05/15/21 19:16*	*1*
o-Terphenyl	*100*		*70 - 130*	*05/14/21 13:14*	*05/15/21 19:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.9**		5.04		mg/Kg			05/17/21 10:51	1

Client Sample ID: DS02
Lab Sample ID: 890-664-3
Date Collected: 05/12/21 12:10
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:24	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:24	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:24	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/14/21 13:30	05/15/21 04:24	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 04:24	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/14/21 13:30	05/15/21 04:24	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		05/14/21 13:30	05/15/21 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*05/14/21 13:30*	*05/15/21 04:24*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/14/21 13:30*	*05/15/21 04:24*	*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		05/14/21 13:14	05/15/21 19:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:37	1
Total TPH	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/14/21 13:14*	*05/15/21 19:37*	*1*
o-Terphenyl	*101*		*70 - 130*	*05/14/21 13:14*	*05/15/21 19:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**472**		5.05		mg/Kg			05/17/21 10:56	1

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS02A

Lab Sample ID: 890-664-4

Date Collected: 05/12/21 12:15
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:14	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 06:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 06:14	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 06:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*05/14/21 13:30*	*05/15/21 06:14*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/14/21 13:30*	*05/15/21 06:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 19:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 19:59	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 19:59	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*05/14/21 13:14*	*05/15/21 19:59*	*1*
o-Terphenyl	*102*		*70 - 130*	*05/14/21 13:14*	*05/15/21 19:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**456**		4.97		mg/Kg			05/17/21 11:11	1

Client Sample ID: DS03

Lab Sample ID: 890-664-5

Date Collected: 05/12/21 12:20
Matrix: Solid
Date Received: 05/13/21 08:56
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		05/14/21 13:30	05/15/21 06:34	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:34	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 06:34	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 06:34	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 06:34	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 06:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/14/21 13:30*	*05/15/21 06:34*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*05/14/21 13:30*	*05/15/21 06:34*	*1*

Client Sample Results

Client: WPX Energy Production LLC
Job ID: 890-664-1
Project/Site: RDX Federal 21-43

Client Sample ID: DS03
Lab Sample ID: 890-664-5
Date Collected: 05/12/21 12:20
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:20	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/14/21 13:14*	*05/15/21 20:20*	*1*
o-Terphenyl	*99*		*70 - 130*	*05/14/21 13:14*	*05/15/21 20:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**369**		24.9		mg/Kg			05/17/21 11:16	5

Client Sample ID: DS03A
Lab Sample ID: 890-664-6
Date Collected: 05/12/21 12:25
Matrix: Solid
Date Received: 05/13/21 08:56
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		05/14/21 13:30	05/15/21 06:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 06:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 06:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/14/21 13:30	05/15/21 06:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 06:55	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/14/21 13:30	05/15/21 06:55	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/14/21 13:30	05/15/21 06:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/14/21 13:30*	*05/15/21 06:55*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/14/21 13:30*	*05/15/21 06:55*	*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		05/14/21 13:14	05/15/21 20:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:41	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*05/14/21 13:14*	*05/15/21 20:41*	*1*
o-Terphenyl	*101*		*70 - 130*	*05/14/21 13:14*	*05/15/21 20:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**466**		4.99		mg/Kg			05/17/21 11:21	1

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS04

Lab Sample ID: 890-664-7

Date Collected: 05/12/21 12:30
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 07:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 07:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 07:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/14/21 13:30	05/15/21 07:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/14/21 13:30	05/15/21 07:15	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/14/21 13:30	05/15/21 07:15	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/14/21 13:30	05/15/21 07:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/14/21 13:30*	*05/15/21 07:15*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/14/21 13:30*	*05/15/21 07:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:02	1
Total TPH	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*05/14/21 13:14*	*05/15/21 21:02*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/14/21 13:14*	*05/15/21 21:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.4**		4.95		mg/Kg			05/17/21 11:26	1

Client Sample ID: DS04A

Lab Sample ID: 890-664-8

Date Collected: 05/12/21 12:35
Matrix: Solid
Date Received: 05/13/21 08:56
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		05/14/21 13:30	05/15/21 07:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/14/21 13:30	05/15/21 07:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/14/21 13:30	05/15/21 07:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/14/21 13:30	05/15/21 07:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/14/21 13:30	05/15/21 07:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/14/21 13:30	05/15/21 07:35	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/14/21 13:30	05/15/21 07:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*05/14/21 13:30*	*05/15/21 07:35*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/14/21 13:30*	*05/15/21 07:35*	*1*

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS04A

Lab Sample ID: 890-664-8
Matrix: Solid
Date Collected: 05/12/21 12:35
Date Received: 05/13/21 08:56
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		05/14/21 13:14	05/15/21 21:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:23	1
Total TPH	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*05/14/21 13:14*	*05/15/21 21:23*	*1*
o-Terphenyl	*101*		*70 - 130*	*05/14/21 13:14*	*05/15/21 21:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**330**		24.8		mg/Kg			05/17/21 11:31	5

Client Sample ID: DS05

Lab Sample ID: 890-664-9
Matrix: Solid
Date Collected: 05/12/21 12:40
Date Received: 05/13/21 08:56
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		05/14/21 13:30	05/15/21 07:56	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/14/21 13:30	05/15/21 07:56	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/14/21 13:30	05/15/21 07:56	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/14/21 13:30	05/15/21 07:56	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/14/21 13:30	05/15/21 07:56	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/14/21 13:30	05/15/21 07:56	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/14/21 13:30	05/15/21 07:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*05/14/21 13:30*	*05/15/21 07:56*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/14/21 13:30*	*05/15/21 07:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 21:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 21:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 21:44	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/14/21 13:14*	*05/15/21 21:44*	*1*
o-Terphenyl	*100*		*70 - 130*	*05/14/21 13:14*	*05/15/21 21:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		4.95		mg/Kg			05/17/21 11:36	1

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS05A

Lab Sample ID: 890-664-10

Date Collected: 05/12/21 12:45
Matrix: Solid
Date Received: 05/13/21 08:56
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		05/14/21 11:07	05/15/21 08:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 08:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 08:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/14/21 11:07	05/15/21 08:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 08:16	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/14/21 11:07	05/15/21 08:16	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/14/21 11:07	05/15/21 08:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*05/14/21 11:07*	*05/15/21 08:16*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/14/21 11:07*	*05/15/21 08:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 22:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 22:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 22:05	1
Total TPH	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*05/14/21 13:14*	*05/15/21 22:05*	*1*
o-Terphenyl	*105*		*70 - 130*	*05/14/21 13:14*	*05/15/21 22:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**167**		5.05		mg/Kg			05/17/21 13:34	1

Client Sample ID: DS06

Lab Sample ID: 890-664-11

Date Collected: 05/12/21 12:50
Matrix: Solid
Date Received: 05/13/21 08:56
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 08:37	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 08:37	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 08:37	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/14/21 13:30	05/15/21 08:37	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/14/21 13:30	05/15/21 08:37	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/14/21 13:30	05/15/21 08:37	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		05/14/21 13:30	05/15/21 08:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/14/21 13:30*	*05/15/21 08:37*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/14/21 13:30*	*05/15/21 08:37*	*1*

Client Sample Results

Client: WPX Energy Production LLC

Job ID: 890-664-1

Project/Site: RDX Federal 21-43

Client Sample ID: DS06

Lab Sample ID: 890-664-11

Date Collected: 05/12/21 12:50

Matrix: Solid

Date Received: 05/13/21 08:56

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 22:47	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 22:47	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 22:47	1
Total TPH	<49.8	U	49.8		mg/Kg		05/14/21 13:14	05/15/21 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/14/21 13:14*	*05/15/21 22:47*	*1*
o-Terphenyl	*100*		*70 - 130*	*05/14/21 13:14*	*05/15/21 22:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**292**		5.04		mg/Kg			05/17/21 13:39	1

Client Sample ID: DS06A

Lab Sample ID: 890-664-12

Date Collected: 05/12/21 12:55

Matrix: Solid

Date Received: 05/13/21 08:56

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 08:57	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 08:57	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 08:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 08:57	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/14/21 13:30	05/15/21 08:57	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 08:57	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/14/21 13:30	05/15/21 08:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*05/14/21 13:30*	*05/15/21 08:57*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/14/21 13:30*	*05/15/21 08:57*	*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		05/14/21 13:14	05/15/21 23:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 23:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 23:08	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 13:14	05/15/21 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/14/21 13:14*	*05/15/21 23:08*	*1*
o-Terphenyl	*102*		*70 - 130*	*05/14/21 13:14*	*05/15/21 23:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.4**		5.02		mg/Kg			05/17/21 13:54	1

Surrogate Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

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)
890-664-1	DS01	113	99
890-664-2	DS01A	121	98
890-664-3	DS02	117	102
890-664-4	DS02A	111	100
890-664-5	DS03	114	101
890-664-6	DS03A	114	100
890-664-7	DS04	114	100
890-664-8	DS04A	118	99
890-664-9	DS05	122	96
890-664-10	DS05A	117	102
890-664-11	DS06	113	100
890-664-12	DS06A	126	95
LCS 880-3119/1-A	Lab Control Sample	104	100
LCSD 880-3119/2-A	Lab Control Sample Dup	105	98
MB 880-3104/5-A	Method Blank	106	94
MB 880-3119/5-A	Method Blank	108	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-664-1	DS01	98	102
890-664-1 MS	DS01	102	98
890-664-1 MSD	DS01	104	91
890-664-2	DS01A	97	100
890-664-3	DS02	96	101
890-664-4	DS02A	103	102
890-664-5	DS03	96	99
890-664-6	DS03A	97	101
890-664-7	DS04	102	103
890-664-8	DS04A	99	101
890-664-9	DS05	95	100
890-664-10	DS05A	103	105
890-664-11	DS06	96	100
890-664-12	DS06A	105	102
LCS 880-3125/2-A	Lab Control Sample	104	98
LCSD 880-3125/3-A	Lab Control Sample Dup	106	98
MB 880-3125/1-A	Method Blank	98	103

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WPX Energy Production LLC

Job ID: 890-664-1

Project/Site: RDX Federal 21-43

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3104/5-A
Matrix: Solid
Analysis Batch: 3103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/14/21 10:11	05/14/21 13:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/14/21 10:11	05/14/21 13:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/14/21 10:11	05/14/21 13:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/14/21 10:11	05/14/21 13:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/14/21 10:11	05/14/21 13:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/14/21 10:11	05/14/21 13:16	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/14/21 10:11	05/14/21 13:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/14/21 10:11*	*05/14/21 13:16*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/14/21 10:11*	*05/14/21 13:16*	*1*

Lab Sample ID: MB 880-3119/5-A
Matrix: Solid
Analysis Batch: 3103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 00:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 00:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 00:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/14/21 11:07	05/15/21 00:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/14/21 11:07	05/15/21 00:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/14/21 11:07	05/15/21 00:52	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/14/21 11:07	05/15/21 00:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/14/21 11:07*	*05/15/21 00:52*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/14/21 11:07*	*05/15/21 00:52*	*1*

Lab Sample ID: LCS 880-3119/1-A
Matrix: Solid
Analysis Batch: 3103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08144		mg/Kg		81	70 - 130
Toluene	0.100	0.09298		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09950		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2012		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1027		mg/Kg		103	70 - 130

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

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

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

Lab Sample ID: LCSD 880-3119/2-A
Matrix: Solid
Analysis Batch: 3103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3119

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08105		mg/Kg		81	70 - 130	0	35
Toluene			0.100	0.09352		mg/Kg		94	70 - 130	1	35
Ethylbenzene			0.100	0.09917		mg/Kg		99	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1997		mg/Kg		100	70 - 130	1	35
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-3125/1-A
Matrix: Solid
Analysis Batch: 3146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3125

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		05/14/21 13:14	05/15/21 17:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 17:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 17:31	1
Total TPH	<50.0	U	50.0		mg/Kg		05/14/21 13:14	05/15/21 17:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*05/14/21 13:14*	*05/15/21 17:31*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/14/21 13:14*	*05/15/21 17:31*	*1*

Lab Sample ID: LCS 880-3125/2-A
Matrix: Solid
Analysis Batch: 3146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3125

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	924.7		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1036		mg/Kg		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: LCSD 880-3125/3-A
Matrix: Solid
Analysis Batch: 3146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3125

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	950.6		mg/Kg		95	70 - 130	199	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

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

Lab Sample ID: LCSD 880-3125/3-A
Matrix: Solid
Analysis Batch: 3146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3125

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1051		mg/Kg		105	70 - 130	197	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 890-664-1 MS
Matrix: Solid
Analysis Batch: 3146

Client Sample ID: DS01
Prep Type: Total/NA
Prep Batch: 3125

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	996	996.0		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1180		mg/Kg		118	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 890-664-1 MSD
Matrix: Solid
Analysis Batch: 3146

Client Sample ID: DS01
Prep Type: Total/NA
Prep Batch: 3125

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1021		mg/Kg		102	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1166		mg/Kg		117	70 - 130	1	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3096/1-A
Matrix: Solid
Analysis Batch: 3152

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			05/17/21 10:11	1

Lab Sample ID: LCS 880-3096/2-A
Matrix: Solid
Analysis Batch: 3152

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	242.6		mg/Kg		97	90 - 110		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-3096/3-A
Matrix: Solid
Analysis Batch: 3152

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	243.1		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-664-9 MS
Matrix: Solid
Analysis Batch: 3152

Client Sample ID: DS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	103		248	368.4		mg/Kg		107	90 - 110		

Lab Sample ID: 890-664-9 MSD
Matrix: Solid
Analysis Batch: 3152

Client Sample ID: DS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	103		248	373.4		mg/Kg		109	90 - 110	1	20

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

GC VOA

Analysis Batch: 3103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-1	DS01	Total/NA	Solid	8021B	3119
890-664-2	DS01A	Total/NA	Solid	8021B	3119
890-664-3	DS02	Total/NA	Solid	8021B	3119
890-664-4	DS02A	Total/NA	Solid	8021B	3119
890-664-5	DS03	Total/NA	Solid	8021B	3119
890-664-6	DS03A	Total/NA	Solid	8021B	3119
890-664-7	DS04	Total/NA	Solid	8021B	3119
890-664-8	DS04A	Total/NA	Solid	8021B	3119
890-664-9	DS05	Total/NA	Solid	8021B	3119
890-664-10	DS05A	Total/NA	Solid	8021B	3119
890-664-11	DS06	Total/NA	Solid	8021B	3119
890-664-12	DS06A	Total/NA	Solid	8021B	3119
MB 880-3104/5-A	Method Blank	Total/NA	Solid	8021B	3104
MB 880-3119/5-A	Method Blank	Total/NA	Solid	8021B	3119
LCS 880-3119/1-A	Lab Control Sample	Total/NA	Solid	8021B	3119
LCSD 880-3119/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3119

Prep Batch: 3104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3104/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 3119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-1	DS01	Total/NA	Solid	5035	
890-664-2	DS01A	Total/NA	Solid	5035	
890-664-3	DS02	Total/NA	Solid	5035	
890-664-4	DS02A	Total/NA	Solid	5035	
890-664-5	DS03	Total/NA	Solid	5035	
890-664-6	DS03A	Total/NA	Solid	5035	
890-664-7	DS04	Total/NA	Solid	5035	
890-664-8	DS04A	Total/NA	Solid	5035	
890-664-9	DS05	Total/NA	Solid	5035	
890-664-10	DS05A	Total/NA	Solid	5035	
890-664-11	DS06	Total/NA	Solid	5035	
890-664-12	DS06A	Total/NA	Solid	5035	
MB 880-3119/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3119/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3119/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 3125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-1	DS01	Total/NA	Solid	8015NM Prep	
890-664-2	DS01A	Total/NA	Solid	8015NM Prep	
890-664-3	DS02	Total/NA	Solid	8015NM Prep	
890-664-4	DS02A	Total/NA	Solid	8015NM Prep	
890-664-5	DS03	Total/NA	Solid	8015NM Prep	
890-664-6	DS03A	Total/NA	Solid	8015NM Prep	
890-664-7	DS04	Total/NA	Solid	8015NM Prep	
890-664-8	DS04A	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

GC Semi VOA (Continued)

Prep Batch: 3125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-9	DS05	Total/NA	Solid	8015NM Prep	
890-664-10	DS05A	Total/NA	Solid	8015NM Prep	
890-664-11	DS06	Total/NA	Solid	8015NM Prep	
890-664-12	DS06A	Total/NA	Solid	8015NM Prep	
MB 880-3125/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3125/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-664-1 MS	DS01	Total/NA	Solid	8015NM Prep	
890-664-1 MSD	DS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-1	DS01	Total/NA	Solid	8015B NM	3125
890-664-2	DS01A	Total/NA	Solid	8015B NM	3125
890-664-3	DS02	Total/NA	Solid	8015B NM	3125
890-664-4	DS02A	Total/NA	Solid	8015B NM	3125
890-664-5	DS03	Total/NA	Solid	8015B NM	3125
890-664-6	DS03A	Total/NA	Solid	8015B NM	3125
890-664-7	DS04	Total/NA	Solid	8015B NM	3125
890-664-8	DS04A	Total/NA	Solid	8015B NM	3125
890-664-9	DS05	Total/NA	Solid	8015B NM	3125
890-664-10	DS05A	Total/NA	Solid	8015B NM	3125
890-664-11	DS06	Total/NA	Solid	8015B NM	3125
890-664-12	DS06A	Total/NA	Solid	8015B NM	3125
MB 880-3125/1-A	Method Blank	Total/NA	Solid	8015B NM	3125
LCS 880-3125/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3125
LCSD 880-3125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3125
890-664-1 MS	DS01	Total/NA	Solid	8015B NM	3125
890-664-1 MSD	DS01	Total/NA	Solid	8015B NM	3125

HPLC/IC

Leach Batch: 3096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-1	DS01	Soluble	Solid	DI Leach	
890-664-2	DS01A	Soluble	Solid	DI Leach	
890-664-3	DS02	Soluble	Solid	DI Leach	
890-664-4	DS02A	Soluble	Solid	DI Leach	
890-664-5	DS03	Soluble	Solid	DI Leach	
890-664-6	DS03A	Soluble	Solid	DI Leach	
890-664-7	DS04	Soluble	Solid	DI Leach	
890-664-8	DS04A	Soluble	Solid	DI Leach	
890-664-9	DS05	Soluble	Solid	DI Leach	
890-664-10	DS05A	Soluble	Solid	DI Leach	
890-664-11	DS06	Soluble	Solid	DI Leach	
890-664-12	DS06A	Soluble	Solid	DI Leach	
MB 880-3096/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3096/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3096/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-664-9 MS	DS05	Soluble	Solid	DI Leach	
890-664-9 MSD	DS05	Soluble	Solid	DI Leach	

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

HPLC/IC

Analysis Batch: 3152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-664-1	DS01	Soluble	Solid	300.0	3096
890-664-2	DS01A	Soluble	Solid	300.0	3096
890-664-3	DS02	Soluble	Solid	300.0	3096
890-664-4	DS02A	Soluble	Solid	300.0	3096
890-664-5	DS03	Soluble	Solid	300.0	3096
890-664-6	DS03A	Soluble	Solid	300.0	3096
890-664-7	DS04	Soluble	Solid	300.0	3096
890-664-8	DS04A	Soluble	Solid	300.0	3096
890-664-9	DS05	Soluble	Solid	300.0	3096
890-664-10	DS05A	Soluble	Solid	300.0	3096
890-664-11	DS06	Soluble	Solid	300.0	3096
890-664-12	DS06A	Soluble	Solid	300.0	3096
MB 880-3096/1-A	Method Blank	Soluble	Solid	300.0	3096
LCS 880-3096/2-A	Lab Control Sample	Soluble	Solid	300.0	3096
LCSD 880-3096/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3096
890-664-9 MS	DS05	Soluble	Solid	300.0	3096
890-664-9 MSD	DS05	Soluble	Solid	300.0	3096

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS01
Date Collected: 05/12/21 12:00
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 03:43	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 18:13	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 10:46	SC	XM

Client Sample ID: DS01A
Date Collected: 05/12/21 12:05
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 04:04	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 19:16	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 10:51	SC	XM

Client Sample ID: DS02
Date Collected: 05/12/21 12:10
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 04:24	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 19:37	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 10:56	SC	XM

Client Sample ID: DS02A
Date Collected: 05/12/21 12:15
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 06:14	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 19:59	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 11:11	SC	XM

Lab Chronicle

Client: WPX Energy Production LLC
Job ID: 890-664-1
Project/Site: RDX Federal 21-43

Client Sample ID: DS03
Lab Sample ID: 890-664-5
Date Collected: 05/12/21 12:20
Matrix: Solid
Date Received: 05/13/21 08:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 06:34	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 20:20	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		5	3152	05/17/21 11:16	SC	XM

Client Sample ID: DS03A
Lab Sample ID: 890-664-6
Date Collected: 05/12/21 12:25
Matrix: Solid
Date Received: 05/13/21 08:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 06:55	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 20:41	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 11:21	SC	XM

Client Sample ID: DS04
Lab Sample ID: 890-664-7
Date Collected: 05/12/21 12:30
Matrix: Solid
Date Received: 05/13/21 08:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 07:15	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 21:02	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 11:26	SC	XM

Client Sample ID: DS04A
Lab Sample ID: 890-664-8
Date Collected: 05/12/21 12:35
Matrix: Solid
Date Received: 05/13/21 08:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 07:35	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 21:23	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		5	3152	05/17/21 11:31	SC	XM

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Client Sample ID: DS05
Date Collected: 05/12/21 12:40
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 07:56	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 21:44	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 11:36	SC	XM

Client Sample ID: DS05A
Date Collected: 05/12/21 12:45
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 11:07	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 08:16	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 22:05	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 13:34	SC	XM

Client Sample ID: DS06
Date Collected: 05/12/21 12:50
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 08:37	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 22:47	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 13:39	SC	XM

Client Sample ID: DS06A
Date Collected: 05/12/21 12:55
Date Received: 05/13/21 08:56

Lab Sample ID: 890-664-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3119	05/14/21 13:30	MR	XM
Total/NA	Analysis	8021B		1	3103	05/15/21 08:57	MR	XM
Total/NA	Prep	8015NM Prep			3125	05/14/21 13:14	DM	XM
Total/NA	Analysis	8015B NM		1	3146	05/15/21 23:08	AJ	XM
Soluble	Leach	DI Leach			3096	05/14/21 09:31	CH	XM
Soluble	Analysis	300.0		1	3152	05/17/21 13:54	SC	XM

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Laboratory: Eurofins Xenco, Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WPX Energy Production LLC
Project/Site: RDX Federal 21-43

Job ID: 890-664-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-664-1	DS01	Solid	05/12/21 12:00	05/13/21 08:56	- 0.5
890-664-2	DS01A	Solid	05/12/21 12:05	05/13/21 08:56	- 1
890-664-3	DS02	Solid	05/12/21 12:10	05/13/21 08:56	- 0.5
890-664-4	DS02A	Solid	05/12/21 12:15	05/13/21 08:56	- 1
890-664-5	DS03	Solid	05/12/21 12:20	05/13/21 08:56	- 0.5
890-664-6	DS03A	Solid	05/12/21 12:25	05/13/21 08:56	- 1
890-664-7	DS04	Solid	05/12/21 12:30	05/13/21 08:56	- 0.5
890-664-8	DS04A	Solid	05/12/21 12:35	05/13/21 08:56	- 1
890-664-9	DS05	Solid	05/12/21 12:40	05/13/21 08:56	- 0.5
890-664-10	DS05A	Solid	05/12/21 12:45	05/13/21 08:56	- 1
890-664-11	DS06	Solid	05/12/21 12:50	05/13/21 08:56	- 0.5
890-664-12	DS06A	Solid	05/12/21 12:55	05/13/21 08:56	- 1

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Lynda Laumbach	Bill to: (if different)	
Company Name:	WPX Energy Permian LLC	Company Name:	
Address:	5315 Buena Vista Dr	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	575-725-1647	Email:	Lynda.Laumbach@WPXenergy.com

Work Order Comments

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

Project Name:	RDX Federal 21-43	Turn Around	
Project Number:		☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Tyler Dominguez	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)	
Samples Received Intact:	(Yes) No	Thermometer ID:	2-IR-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	1.4	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.2	
Total Containers:		Corrected Temperature:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chlorides (EPA 300.0)	BTEX (Method 8021)	TPH (Method 8015)
DS01	S	5-12-21	12:00	0.5'	G	1		X	X	X
DS01A			12:05	1'						
DS02			12:16	0.5'						
DS02A			12:15	1'						
DS03			12:20	0.5'						
DS03A			12:25	1'						
DS04			12:30	0.5'						
DS04A			12:35	1'						
DS05			12:40	0.5'						
DS05A	↓	↓	12:45	1'	↓	↓		↓	↓	↓

890-664 Chain of Custody

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		5-13-21 08	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Lynda Laumbach	Bill to: (if different)	
Company Name:	WPX Energy Permian LLC	Company Name:	
Address:	5315 Buena Vista Dr	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	575-725-1647	Email:	Lynda.Laumbach@WPXEnergy.com

Work Order Comments

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

Project Name:	ROX Federal 21-43	Turn Around	Pres. Code
Project Number:		☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Tyler Domingues	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	Dag	
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: Chlorides (EPA 300.0)	BTEX (Method 8021)	TPH (Method 8015)
DS06	S	5-12-21	12:50	0.5'	G	1	X	X	X
DS06A	S	↓	12:55	1'	G	1	X	X	X

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Ti Sn U V Zn

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		5.13.21 0856			
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

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: 890-217 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 - Louisiana NELAP - Texas		Job #: 890-664-1
Address: 1211 W Florida Ave ,	Due Date Requested: 5/19/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDX Federal 21-43	Project #: 88000204			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
DS01 (890-664-1)	5/12/21	12 00 Mountain		Solid			X	X	X	1	
DS01A (890-664-2)	5/12/21	12 05 Mountain		Solid			X	X	X	1	
DS02 (890-664-3)	5/12/21	12 10 Mountain		Solid			X	X	X	1	
DS02A (890-664-4)	5/12/21	12 15 Mountain		Solid			X	X	X	1	
DS03 (890-664-5)	5/12/21	12 20 Mountain		Solid			X	X	X	1	
DS03A (890-664-6)	5/12/21	12 25 Mountain		Solid			X	X	X	1	
DS04 (890-664-7)	5/12/21	12 30 Mountain		Solid			X	X	X	1	
DS04A (890-664-8)	5/12/21	12 35 Mountain		Solid			X	X	X	1	
DS05 (890-664-9)	5/12/21	12 40 Mountain		Solid			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: Cloe Cruz 5.13.21	Date/Time:	Company	Received by: Date/Time: 5-14-21 11:00 am Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time Company

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

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WPX Energy Production LLC Job Number: 890-664-1

Login Number: 664 **List Source: Eurofins Carlsbad**
List Number: 1
Creator: Clifton, Cloe

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: WPX Energy Production LLC

Job Number: 890-664-1

Login Number: 664
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 05/14/21 11:10 AM

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

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Analytical Report

Report Summary

Client: WPX (Carlsbad)

Samples Received: 1/24/2020
Job Number: 04108-0639
Work Order: P001077
Project Name/Location: RDX 21-43 (2RP-4464)

Report Reviewed By: Date: 1/30/20

Walter Hinchman, Laboratory Director

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
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24 Hour Emergency Response Phone (800) 362-1879
envirotech-inc.com
Labadmin@envirotech-inc.com

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Analytical Laboratory

WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TT1 @ 2'	P001077-01A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT1 @ 6'	P001077-02A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT2 @ 2'	P001077-03A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT2 @ 6'	P001077-04A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT3 @ 2'	P001077-05A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT3 @ 8'	P001077-06A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT4 @ 2'	P001077-07A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT4 @ 10'	P001077-08A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT1 @ 2'

P001077-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*85.7 %*		*50-200*	*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.3 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**7190**	100	mg/kg	5	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT1 @ 6'

P001077-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*86.3 %*		*50-200*	*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.2 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**520**	100	mg/kg	5	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT2 @ 2'

P001077-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.9 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*81.7 %*		*50-200*	*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.5 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**636**	20.0	mg/kg	1	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT2 @ 6'

P001077-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*89.1 %*		*50-200*	*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/28/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.6 %*		*50-150*	*2005010*	*01/27/20*	*01/28/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**238**	100	mg/kg	5	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT3 @ 2'

P001077-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*	*50-150*		*2005010*	*01/27/20*	*01/29/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*88.2 %*	*50-200*		*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*50-150*		*2005010*	*01/27/20*	*01/29/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**3560**	40.0	mg/kg	2	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT3 @ 8'

P001077-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*	*50-150*		*2005010*	*01/27/20*	*01/29/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*93.4 %*	*50-200*		*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.2 %*	*50-150*		*2005010*	*01/27/20*	*01/29/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**563**	20.0	mg/kg	1	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT4 @ 2'

P001077-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*2005010*	*01/27/20*	*01/29/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		*93.4 %*		*50-200*	*2005011*	*01/27/20*	*01/27/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.4 %*		*50-150*	*2005010*	*01/27/20*	*01/29/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**6600**	100	mg/kg	5	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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Analytical Laboratory

WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

TT4 @ 10'

P001077-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*		*50-150*	*2005010*	*01/27/20*	*01/29/20*	*EPA 8021B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005011	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005011	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		*95.7 %*		*50-200*	*2005011*	*01/27/20*	*01/28/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.4 %*		*50-150*	*2005010*	*01/27/20*	*01/29/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**583**	20.0	mg/kg	1	2005020	01/28/20	01/29/20	EPA 300.0/9056A	

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2005010 - Purge and Trap EPA 5030A										
Blank (2005010-BLK1)				Prepared: 01/27/20 1 Analyzed: 01/30/20 1						
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	*7.96*		*"*	*8.00*		*99.5*	*50-150*			
LCS (2005010-BS1)				Prepared: 01/27/20 1 Analyzed: 01/28/20 1						
Benzene	5.07	0.0250	mg/kg	5.00		101	70-130			
Toluene	5.15	0.0250	"	5.00		103	70-130			
Ethylbenzene	5.07	0.0250	"	5.00		101	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	5.03	0.0250	"	5.00		101	70-130			
Total Xylenes	15.1	0.0250	"	15.0		101	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.10*		*"*	*8.00*		*101*	*50-150*			
Matrix Spike (2005010-MS1)		**Source: P001077-01**		Prepared: 01/27/20 1 Analyzed: 01/28/20 2						
Benzene	4.90	0.0250	mg/kg	5.00	ND	97.9	54.3-133			
Toluene	5.02	0.0250	"	5.00	ND	100	61.4-130			
Ethylbenzene	4.95	0.0250	"	5.00	ND	99.0	61.4-133			
p,m-Xylene	9.84	0.0500	"	10.0	ND	98.4	63.3-131			
o-Xylene	4.92	0.0250	"	5.00	ND	98.4	63.3-131			
Total Xylenes	14.8	0.0250	"	15.0	ND	98.4	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*8.20*		*"*	*8.00*		*103*	*50-150*			
Matrix Spike Dup (2005010-MSD1)		**Source: P001077-01**		Prepared: 01/27/20 1 Analyzed: 01/28/20 2						
Benzene	4.87	0.0250	mg/kg	5.00	ND	97.5	54.3-133	0.454	20	
Toluene	5.00	0.0250	"	5.00	ND	100	61.4-130	0.454	20	
Ethylbenzene	4.94	0.0250	"	5.00	ND	98.8	61.4-133	0.212	20	
p,m-Xylene	9.82	0.0500	"	10.0	ND	98.2	63.3-131	0.258	20	
o-Xylene	4.91	0.0250	"	5.00	ND	98.2	63.3-131	0.239	20	
Total Xylenes	14.7	0.0250	"	15.0	ND	98.2	63.3-131	0.252	20	
Surrogate: 4-Bromochlorobenzene-PID	*8.21*		*"*	*8.00*		*103*	*50-150*			

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Analytical Laboratory

WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2005011 - DRO Extraction EPA 3570										
Blank (2005011-BLK1)				Prepared: 01/27/20 1 Analyzed: 01/27/20 2						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	*46.4*		"	*50.0*		*92.8*	*50-200*			
LCS (2005011-BS1)				Prepared: 01/27/20 1 Analyzed: 01/27/20 2						
Diesel Range Organics (C10-C28)	453	25.0	mg/kg	500		90.7	38-132			
Surrogate: n-Nonane	*48.2*		"	*50.0*		*96.5*	*50-200*			
Matrix Spike (2005011-MS1)	**Source: P001075-01**			Prepared: 01/27/20 1 Analyzed: 01/28/20 1						
Diesel Range Organics (C10-C28)	476	25.0	mg/kg	500	ND	95.3	38-132			
Surrogate: n-Nonane	*47.7*		"	*50.0*		*95.4*	*50-200*			
Matrix Spike Dup (2005011-MSD1)	**Source: P001075-01**			Prepared: 01/27/20 1 Analyzed: 01/28/20 1						
Diesel Range Organics (C10-C28)	470	25.0	mg/kg	500	ND	94.1	38-132	1.23	20	
Surrogate: n-Nonane	*46.1*		"	*50.0*		*92.3*	*50-200*			

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Analytical Laboratory

WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2005010 - Purge and Trap EPA 5030A										
Blank (2005010-BLK1)				Prepared: 01/27/20 1 Analyzed: 01/30/20 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.05*		"	*8.00*		*88.1*	*50-150*			
LCS (2005010-BS2)				Prepared: 01/27/20 1 Analyzed: 01/28/20 1						
Gasoline Range Organics (C6-C10)	46.6	20.0	mg/kg	50.0		93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.08*		"	*8.00*		*88.5*	*50-150*			
Matrix Spike (2005010-MS2)		**Source: P001077-01**		Prepared: 01/27/20 1 Analyzed: 01/28/20 2						
Gasoline Range Organics (C6-C10)	48.2	20.0	mg/kg	50.0	ND	96.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.12*		"	*8.00*		*89.0*	*50-150*			
Matrix Spike Dup (2005010-MSD2)		**Source: P001077-01**		Prepared: 01/27/20 1 Analyzed: 01/28/20 2						
Gasoline Range Organics (C6-C10)	45.1	20.0	mg/kg	50.0	ND	90.2	70-130	6.61	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.15*		"	*8.00*		*89.4*	*50-150*			

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Analytical Laboratory

WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2005020 - Anion Extraction EPA 300.0/9056A										
Blank (2005020-BLK1)				Prepared: 01/28/20 1 Analyzed: 01/29/20 0						
Chloride	ND	20.0	mg/kg							
LCS (2005020-BS1)				Prepared: 01/28/20 1 Analyzed: 01/29/20 0						
Chloride	254	20.0	mg/kg	250		101	90-110			
Matrix Spike (2005020-MS1)		**Source: P001077-01**		Prepared: 01/28/20 1 Analyzed: 01/29/20 0						
Chloride	7310	100	mg/kg	250	7190	49.2	80-120			M4
Matrix Spike Dup (2005020-MSD1)		**Source: P001077-01**		Prepared: 01/28/20 1 Analyzed: 01/29/20 0						
Chloride	7800	100	mg/kg	250	7190	246	80-120	6.52	20	M4

QC Summary Report
Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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WPX (Carlsbad)	Project Name:	RDX 21-43 (2RP-4464)	
5315 Buena Vista Dr	Project Number:	04108-0639	**Reported:**
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:45

Notes and Definitions

M4	Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

Chain of Custody

Page 1 of 1

Project Information

Client: WPX
Project: RDX 21-43 (2RP-4464)
Project Manager:
Address:
City, State, Zip
Phone:
Email: Lynda @ WPX

Report Attention

Report due by:
Attention:
Address:
City, State, Zip
Phone:
Email: joseph@etechenv.com

Lab Use Only

Lab WO# P001077
Job Number 04108-0639

TAT: 1D | 3D

EPA Program: RCRA | CWA | SDWA

State: NM | CO | UT | AZ — NM: X

Analysis and Method: DRO/ORO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 300.0 | BGDOC | NM

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	BGDOC	Remarks
9:30am	1.22.20	S	1	TT1 @ 2'	1	X	
9:45am			1	TT1 @ 6'	2		
9:50am			1	TT2 @ 2'	3		
10:06am			1	TT2 @ 6'	4		
10:20am			1	TT3 @ 2'	5		
10:45am			1	TT3 @ 8'	6		
11:50am			1	TT4 @ 2'	7		
12:15pm			1	TT4 @ 10'	8		

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	1.23.20	4:23pm		1-23-2020	1623
	1.24.2020	1915	Raine Lopez	1/24/20	19:30

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboraotry is limited to the amount paid for on the report.

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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

Project Information | Chain of Custody | Page 1 of 1

Client:	WPX
Project:	RDX 21-43 (2RP-4464)
Project Manager:	Lynda Laumbach
Address:	
City, State, Zip	
Phone:	
Email:	Lynda@WPX

Report Attention

Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	joseph@etechenv.com

Lab Use Only

Lab WO#	Job Number
P001077	04108-0639

TAT

1D	3D

EPA Program

RCRA	CWA	SDW

State

NM	CO	UT
X		

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	Remarks
9:30am	1-22-20	S	1	TT1 @ 2'	1							X	
9:45am			1	TT1 @ 6'	2								
9:50am			1	TT2 @ 2'	3								
10:05am			1	TT2 @ 6'	4								
10:20am			1	TT3 @ 2'	5								
10:45am			1	TT3 @ 8'	6								
11:50am			1	TT4 @ 2'	7								
12:15pm			1	TT4 @ 10'	8								

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: _____

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	1-23-20	4:23pm		1-23-2020	1623
	1-24-2020	1915	Raina Lopez	1/24/20	19:30

Lab Use Only
Received on ice: (Y) / N
T1 _____ T2 _____ T3 _____
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboraotry is limited to the amount paid for on the report.

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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 52381

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 52381
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	9/14/2022