

Incident ID	nAPP2115533694
District RP	
Facility ID	
Application ID	

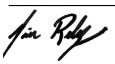
Closure

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

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

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

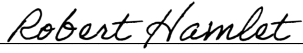
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public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

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 02/20/2023
email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Robert Hamlet Date: 6/21/2023

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

Closure Approved by:  Date: 6/21/2023
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2115533694
District RP	
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Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC.	OGRID: 246289
Contact Name: Lynda Laumbach	Contact Telephone: (575) 725-1647
Contact email: Lynda.Laumbach@dmn.com	Incident # (assigned by OCD) nAPP2115533694
Contact mailing address: 5315 Buena Vista Drive, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.02378 Longitude -103.8809
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDX Federal 21 #044	Site Type: Production Facility
Date Release Discovered: 06/03/2021	API# (if applicable): 30-015-41193

Unit Letter	Section	Township	Range	County
P	21	26S	30E	Eddy

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls): 0	Volume Recovered (bbls): 0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 200	Volume Recovered (bbls): 150
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Valve failed inside the metal valve access point/Can along the ROW causing ~175-200bbl of PW to be released in the ROW. 150bbl PW was recovered via vacuum trucks.

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


State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Quantity released was greater than 25 barrels of fluid
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? NOR submitted 06/04/2021	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Lynda Laumbach</u>	Title: <u>Environmental Professional</u>
Signature: <u></u>	Date: <u>06/09/2021</u>
email: <u>Lynda.Laumbach@dvn.com</u>	Telephone: <u>(575)725-1647</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>6/9/2021</u>

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

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

CONDITIONS

Action 31144

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 31144
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
marcus	None	6/9/2021

Incident ID	nAPP2115533694
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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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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


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

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

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

Incident ID	nAPP2115533694
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Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 2/20/2023
email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2115533694
District RP	
Facility ID	
Application ID	

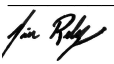
Closure

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

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

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

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Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 02/20/2023
email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



CLOSURE REQUEST REPORT

Site Location:

**RDX Federal 21 #044
Eddy County, New Mexico
Incident Number
nAPP2115533694**

February 14, 2023
Ensolum Project No. 03A1987008

Prepared for:

**WPX Energy Permian, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220
Attention: Jim Raley**

Prepared by:

Joseph S. Hernandez
Senior Geologist

Ashley Ager, M.S., P.G.
Principal

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	Figure 2: Delineation Soil Sample Locations
	Figure 3: Excavation Soil Sample Locations
Appendix B:	Lithologic Soil Sampling Logs
Appendix C:	Photographic Logs
Appendix D:	Tables
Appendix E:	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix F:	Correspondence Emails

1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Closure Request Report (CRR) to document corrective actions performed by WPX Energy Permian, LLC (WPX) at the RDX Federal 21 #044 (hereinafter referred to as the "Site") in Unit P, Section 21, Township 26 South, Range 30 East, in Eddy County, New Mexico. The corrective actions have been completed in accordance with a Remediation Work Plan (RWP) authored by WSP USA Inc. (WSP) and approved on January 10, 2022 by the New Mexico Oil Conservation Division (NMOCD) with the following condition:

"Please make sure the floor confirmation samples are delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples of 500 ft² is approved."

1.1 Site Description and Release Background

The Site is located within Eddy County, New Mexico (32.02378° N, 103.88090° W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land (**Figure 1 in Appendix A**).

On June 3, 2021, a valve failure caused the release of approximately 200 bbls of produced water onto an adjacent right-of-way (ROW) and pasture. Approximately 150 bbls of free-standing liquid were recovered via vacuum trucks. See **Figure 2 in Appendix A** depicting the mapped release extent. WPX immediately reported the release to the NMOCD on June 4, 2021 via email and on a Release Notification and Corrective Action Form C-141 (Form C-141) on June 9, 2021. The release was assigned Incident Number nAPP2115533694.

1.2 Site Characterization

A detailed Site Characterization can be referenced in the approved RWP submitted by WSP. Based on the desktop review summary of nearby receptors and drilling for depth to groundwater determination at the Site, the following NMOCD Table 1 Closure Criteria for constituents of concern (COCs) were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the release.

2.0 REMEDIATION ACTIONS

2.1 Delineation Activities

The RWP presented results from original samples collected to delineate lateral and vertical extent of the release. On June 9, 2022, additional delineation activities were conducted by Ensolum to confirm the presence or absence of elevated COCs in a *de minimis* impacted area within the subject release. One borehole was advanced with a hand auger (samples designated as BH10). Delineation activities were directed by field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from BH10: the sample with the highest observed field screening (1-foot bgs) and the greatest depth (4 feet bgs). The locations of delineation soil samples collected to date are shown in **Figure 2** in **Appendix A**. Field screening results and observations for BH10 were recorded on a lithologic/soil sampling log (**Appendix B**).

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported and chilled under strict chain-of-custody procedures to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0.

2.2 Excavation Activities

Between June 22, 2022 and July 6, 2022, excavation activities were conducted by Ensolum to remove impacted soil associated with the subject release via heavy equipment and/or hydrovac. WPX implemented safety precautions such as de-energizing active electrical and power lines on site for safety of personnel before commencing disturbance activities. Excavation activities were directed by referencing delineation laboratory analytical results and by field screening soil for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips.

Following removal of impacted soil, Ensolum collected composite soil samples at a sampling frequency of 500 square feet from the sidewalls (samples designated as SW) and floors (samples designated as FS) of the excavation to confirm impacted soil above reclamation requirements and/or Closure Criteria was successfully removed. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW12 were collected from the sidewalls of the excavation(s) at depths ranging from the ground surface to approximately 4 feet bgs; FS01 through FS20 were collected from the floor of the excavation(s) at a depth of approximately 4 feet bgs. The soil samples were handled, collected and analyzed as previously described.

The approximate extent of excavation and excavation soil sample locations is provided on **Figure 3** in **Appendix A**. Photographic documentation of remediation activities is included in **Appendix C**.

At the completion of remediation action activities, approximately 1,349 cubic yards of impacted soil were excavated and disposed of under WPX-approved manifests. The excavated impacted soil was transported for disposal to a R360 Environmental Solutions, LLC in accordance with state and federal regulations.

3.0 SOIL SAMPLING RESULTS

Laboratory analytical data from the delineation samples collected from BH10 indicate the absence of elevated COCs within that area of the release. Laboratory analytical results for final confirmation soil samples indicated COCs were below the reclamation requirement and/or Closure Criteria. Laboratory analytical results are summarized in **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**. **Appendix F** provides correspondence email notification receipts associated with the release.

4.0 CLOSURE REQUEST

The primary objectives of Ensolum's scope of services were to document that response actions performed at the Site were completed in accordance with the applicable NMOCD regulatory guidelines and to document removal of soil containing concentrations of COCs exceeding the applicable reclamation requirements and/or Closure Criteria were remediated. Based on the results documented in this report, the following findings and conclusions regarding the Site are presented:

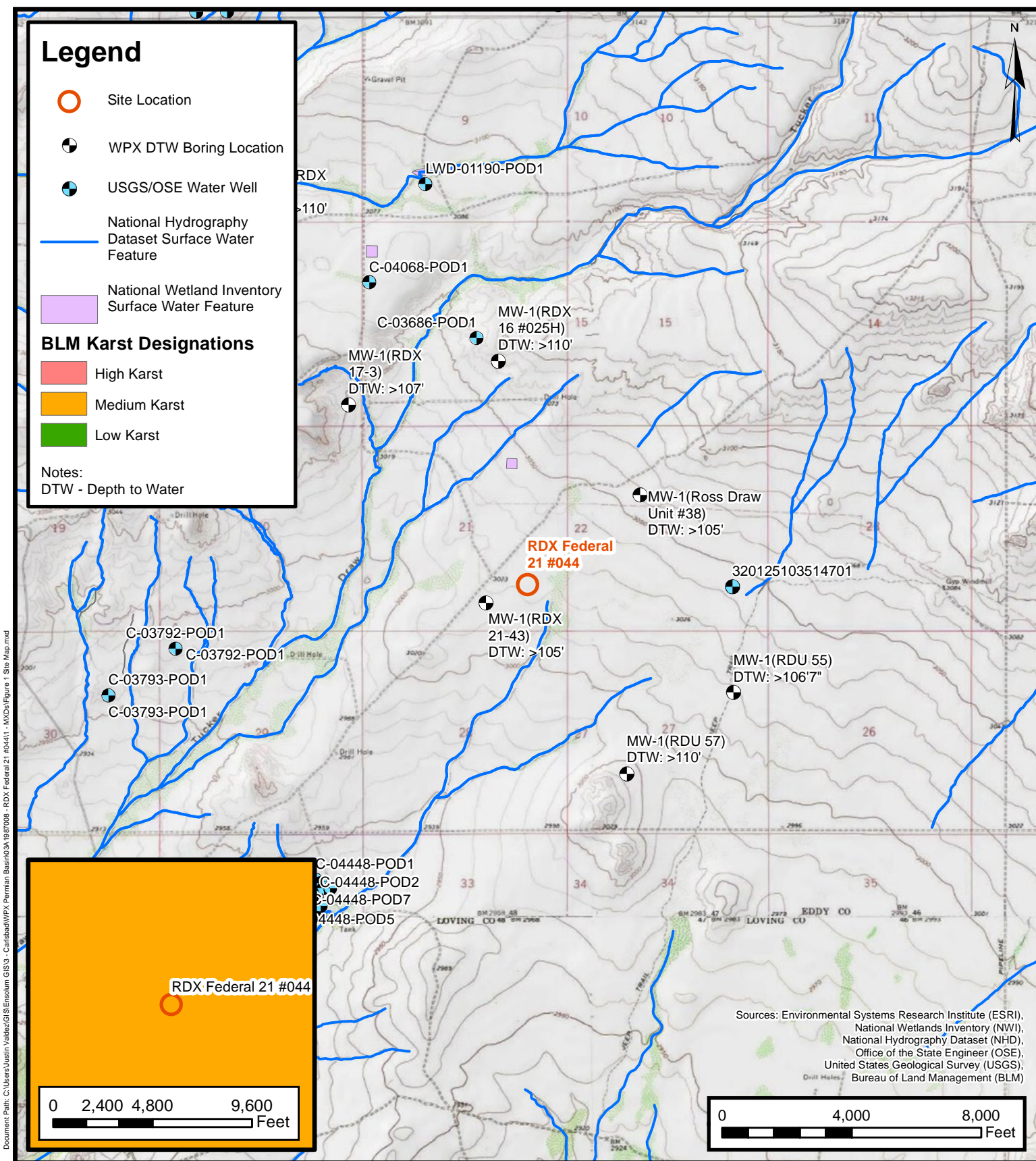
- COCs associated with BH04 indicated concentrations below the reclamation requirement, therefore no remediation occurred in that area. Ensolum conducted additional delineation activities to further characterize areas with *de minimis* surface impacts. Ensolum advanced delineation sample BH10 within the release footprint and it was confirmed that COCs were also below the applicable reclamation requirement;
- Ensolum directed excavation activities by referencing delineation laboratory analytical data and by field screening soil impacted by the release. Approximately 1,349 cubic yards of impacted soil were excavated and removed from the Site for disposal in accordance with state and federal regulations;
- Based on laboratory analytical results associated with final confirmation excavation soil samples, concentrations of COCs greater than the NMOCD applicable reclamation standard requirement and/or Closure Criteria were not identified in soil remaining on-Site; and
- The excavation has been backfilled with clean, imported soil and restored to "as close to its original state" as possible.

Based on the findings and conclusions of this report No Further Action appears warranted at this time and the Site should be respectfully considered for closure by the NMOCD. Previous project summary and field activity details can be found in the original RWP.



APPENDIX A

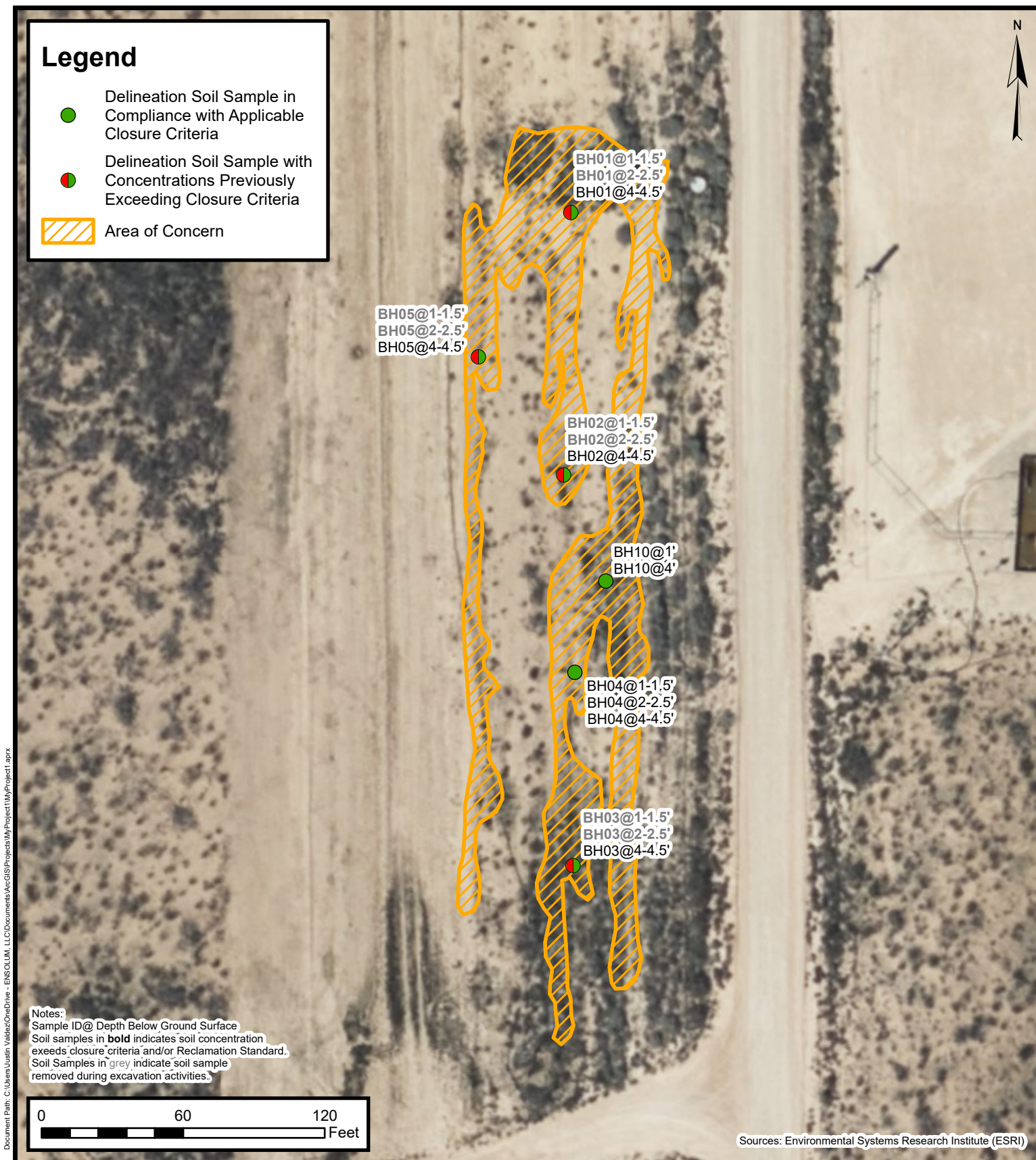
Figures



Site Map

RDX Federal 21 #044
WPX Energy Permian, LLC
Unit P, Section 21, Township 26S, Range 30E
Eddy County, New Mexico

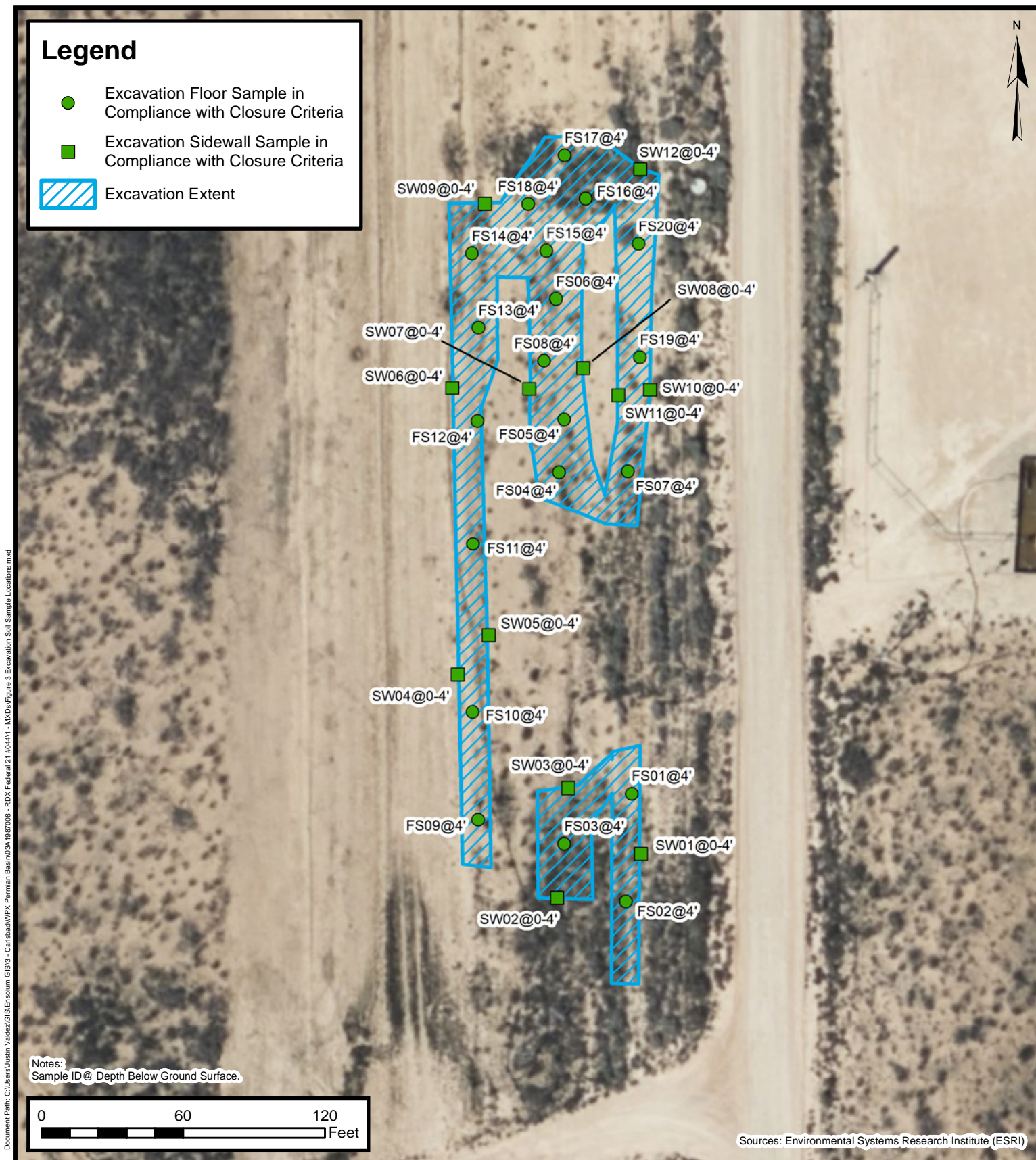
FIGURE
1



Delineation Soil Sample Locations

RDX Federal 21 #044
 WPX Energy Permian, LLC
 Unit P, Section 21, Township 26S, Range 30E
 Eddy County, New Mexico

FIGURE
2



Excavation Soil Sample Locations


RDX Federal 21 #044
WPX Energy Permian, LLC
Unit P, Section 21, Township 26S, Range 30E
Eddy County, New Mexico

FIGURE
3



APPENDIX B

Lithologic Soil Sampling Logs

 ENSOLUM		Sample Name: BH10		Date: 06/09/2022				
		Site Name: RDX Federal 21 #044						
		Incident Number: nAPP2115533694						
		Job Number: 03A1987008						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: (32.023448° N, 103.881810° W)			Logged By: GM		Method: Hand Auger			
Hole Diameter: 3"			Total Depth: 4'					
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	0		BH10	1	0 0.5 1	SP	0-4', SAND, dry, brown, poorly graded, fine, no staining, no odor. 3-4', SAND, dry, brown, poorly graded with silt, fine, no staining, no odor.
D	<168	0			2	2		
D	296	0			3	3	SP-SM	
D	296	0		BH10	4	4		
Total Depth: 4 feet bgs.								



APPENDIX C

Photographic Log



Photographic Log

WPX Energy Permian, LLC.

RDX Federal 21 #044

Incident Number: nAPP2115533694

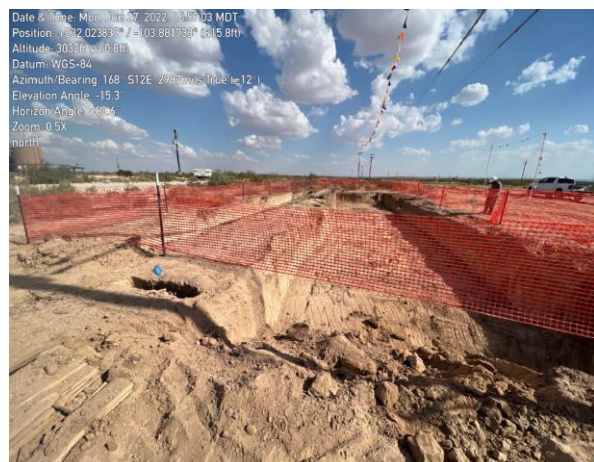
Ensolum Job Number: 03A1987008



Photograph: 1
Description: Excavation activities.
View: South



Photograph: 2
Description: Excavation activities.
View: North



Photograph: 3
Description: Excavation activities.
View: North



Photograph: 4
Description: Excavation activities.
View: South



Photographic Log

WPX Energy Permian, LLC.

RDX Federal 21 #044

Incident Number nAPP2115533694

Ensolum Job Number: 03A1987008

Date & Time: Thu, Jun 30, 2022 16:09:57 MDT
Position: +032.023743° / -103.881729° (±15.6ft)
Altitude: 3030ft (±10.9ft)
Datum: WGS-84
Azimuth/Bearing: 186° S06W 3307mils True (±14°)
Elevation Angle: -09.8°
Horizon Angle: +01.5°
Zoom: 0.5X
north



Date & Time: Wed, Nov 30, 2022 at 15:47:53 MST
E - W



Photograph: 5

Date: 6/30/2022

Description: Excavation activities.

View: North

Photograph: 6

Date: 11/30/2022

Description: Backfill activities.

View: North

Date & Time: Thu, Dec 01, 2022 at 13:30:26 MST
1



Date & Time: Mon, Dec 05, 2022 at 11:52:14 MST
Position: +032.023743° / -103.881680° (±15.1ft)
Altitude: 3010ft (±11.4ft)
Datum: WGS-84
Azimuth/Bearing: 345° N16W 8130mils True (±12°)
Elevation Angle: +16.1°
Horizon Angle: 00.4°
Zoom: 0.5X
north



Photograph: 7

Date: 12/1/2022

Description: Backfill activities.

View: North

Photograph: 8

Date: 12/5/2022

Description: Backfill activities.

View: North



APPENDIX D

Tables



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS WPX Energy Permian, LLC - RDX Federal 21 #044 Eddy County, New Mexico Ensolum Project No. 03A1987008										
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Sample Analytical Results										
BH10	06/09/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	19.7
BH10	06/09/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	417
Excavation Floor Soil Sample Analytical Results										
FS01	06/22/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,080
FS02	06/22/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	4,340
FS03	06/23/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,890
FS04	06/27/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,370
FS05	06/27/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	463
FS06	06/27/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	959
FS07	06/27/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	3,880
FS08	06/29/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	391
FS09	06/29/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,620
FS10	06/29/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,630
FS11	06/29/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,260
FS12	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	237
FS13	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,510
FS14	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,580
FS15	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	232
FS16	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,770
FS17	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	594
FS18	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	430
FS19	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	216
FS20	07/06/2022	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,260



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS WPX Energy Permian, LLC - RDX Federal 21 #044 Eddy County, New Mexico Ensolum Project No. 03A1987008										
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Sidewall Soil Sample Analytical Results										
SW01	06/22/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	203
SW02	06/22/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	268
SW03	06/23/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW04	06/29/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	216
SW05	06/29/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	161
SW06	06/30/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	192
SW07	06/30/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	142
SW08	07/06/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	57.6
SW09	07/06/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	289
SW10	07/06/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	197
SW11	07/06/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	96.9
SW12	07/06/2022	0 - 4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	36.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release



APPENDIX E

Laboratory Analytical Reports & Chain-of-Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2401-1

Laboratory Sample Delivery Group: Eddy County NM
Client Project/Site: RDX Federal 21 #044

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Anna Byers

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

Authorized for release by:

6/17/2022 10:28:18 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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

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

Client: Ensolum
Project/Site: RDX Federal 21 #044

Laboratory Job ID: 890-2401-1
SDG: Eddy County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Job ID: 890-2401-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2401-1

Receipt

The samples were received on 6/9/2022 3:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-27379 and analytical batch 880-27351 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH10 (890-2401-1), (LCS 880-27379/2-A) and (LCSD 880-27379/3-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Client Sample ID: BH10

Lab Sample ID: 890-2401-1

Date Collected: 06/09/22 10:00

Matrix: Solid

Date Received: 06/09/22 15:52

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		06/15/22 10:22	06/16/22 04:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/15/22 10:22	06/16/22 04:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/15/22 10:22	06/16/22 04:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/15/22 10:22	06/16/22 04:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/15/22 10:22	06/16/22 04:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/15/22 10:22	06/16/22 04:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	06/15/22 10:22	06/16/22 04:01	1
1,4-Difluorobenzene (Surr)	96		70 - 130	06/15/22 10:22	06/16/22 04:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/15/22 12:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/14/22 09:33	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		06/13/22 09:28	06/13/22 14:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		06/13/22 09:28	06/13/22 14:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/22 09:28	06/13/22 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	06/13/22 09:28	06/13/22 14:45	1
o-Terphenyl	131	S1+	70 - 130	06/13/22 09:28	06/13/22 14:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.7		4.96		mg/Kg			06/17/22 05:46	1

Client Sample ID: BH10

Lab Sample ID: 890-2401-2

Date Collected: 06/09/22 10:05

Matrix: Solid

Date Received: 06/09/22 15:52

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 09:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 09:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 09:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/14/22 11:32	06/15/22 09:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 09:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/14/22 11:32	06/15/22 09:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	06/14/22 11:32	06/15/22 09:12	1

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Client Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Client Sample ID: BH10

Lab Sample ID: 890-2401-2

Date Collected: 06/09/22 10:05

Matrix: Solid

Date Received: 06/09/22 15:52

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	06/14/22 11:32	06/15/22 09:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/15/22 12:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/14/22 09:33	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		06/13/22 09:28	06/13/22 15:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		06/13/22 09:28	06/13/22 15:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/13/22 09:28	06/13/22 15:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130				06/13/22 09:28	06/13/22 15:07	1
o-Terphenyl	127		70 - 130				06/13/22 09:28	06/13/22 15:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	417		5.00		mg/Kg			06/17/22 06:09	1

Surrogate Summary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2388-A-19-F MS	Matrix Spike	92	89
890-2388-A-19-G MSD	Matrix Spike Duplicate	87	94
890-2388-A-32-E MS	Matrix Spike	106	98
890-2388-A-32-F MSD	Matrix Spike Duplicate	105	106
890-2401-1	BH10	103	96
890-2401-2	BH10	109	94
LCS 880-27499/1-A	Lab Control Sample	107	102
LCS 880-27599/1-A	Lab Control Sample	106	102
LCSD 880-27499/2-A	Lab Control Sample Dup	107	100
LCSD 880-27599/2-A	Lab Control Sample Dup	101	100
MB 880-27492/5-A	Method Blank	101	91
MB 880-27499/5-A	Method Blank	101	91
MB 880-27599/5-A	Method Blank	80	90
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)
880-15766-A-1-B MS	Matrix Spike	110	106
880-15766-A-1-C MSD	Matrix Spike Duplicate	111	109
890-2401-1	BH10	116	131 S1+
890-2401-2	BH10	111	127
LCS 880-27379/2-A	Lab Control Sample	140 S1+	151 S1+
LCSD 880-27379/3-A	Lab Control Sample Dup	126	132 S1+
MB 880-27379/1-A	Method Blank	100	118
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27492/5-A

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27492

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/14/22 10:17	06/14/22 16:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/14/22 10:17	06/14/22 16:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/14/22 10:17	06/14/22 16:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/14/22 10:17	06/14/22 16:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/14/22 10:17	06/14/22 16:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/14/22 10:17	06/14/22 16:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	06/14/22 10:17	06/14/22 16:13	1
1,4-Difluorobenzene (Surr)	91		70 - 130	06/14/22 10:17	06/14/22 16:13	1

Lab Sample ID: MB 880-27499/5-A

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27499

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 03:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 03:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 03:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/14/22 11:32	06/15/22 03:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/14/22 11:32	06/15/22 03:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/14/22 11:32	06/15/22 03:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	06/14/22 11:32	06/15/22 03:41	1
1,4-Difluorobenzene (Surr)	91		70 - 130	06/14/22 11:32	06/15/22 03:41	1

Lab Sample ID: LCS 880-27499/1-A

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27499

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1014		mg/Kg		101	70 - 130
Toluene	0.100	0.09772		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2037		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1029		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-27499/2-A

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27499

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1084		mg/Kg		108	70 - 130	7	35

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QC Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-27499/2-A

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27499

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1050		mg/Kg		105	70 - 130	7	35
Ethylbenzene	0.100	0.1109		mg/Kg		111	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2208		mg/Kg		110	70 - 130	8	35
o-Xylene	0.100	0.1121		mg/Kg		112	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-2388-A-19-F MS

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 27499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.100	0.03062	F1	mg/Kg		31	70 - 130
Toluene	<0.00200	U F1	0.100	0.03557	F1	mg/Kg		36	70 - 130
Ethylbenzene	<0.00200	U F1	0.100	0.03756	F1	mg/Kg		37	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.200	0.07761	F1	mg/Kg		39	70 - 130
o-Xylene	<0.00200	U F1	0.100	0.04337	F1	mg/Kg		43	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 890-2388-A-19-G MSD

Matrix: Solid

Analysis Batch: 27512

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 27499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0996	0.03440	F1	mg/Kg		35	70 - 130	12	35
Toluene	<0.00200	U F1	0.0996	0.04224	F1	mg/Kg		42	70 - 130	17	35
Ethylbenzene	<0.00200	U F1	0.0996	0.04317	F1	mg/Kg		43	70 - 130	14	35
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.08736	F1	mg/Kg		44	70 - 130	12	35
o-Xylene	<0.00200	U F1	0.0996	0.05106	F1	mg/Kg		51	70 - 130	16	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: MB 880-27599/5-A

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/15/22 10:22	06/15/22 17:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/15/22 10:22	06/15/22 17:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/15/22 10:22	06/15/22 17:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/15/22 10:22	06/15/22 17:37	1

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QC Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

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

Lab Sample ID: MB 880-27599/5-A

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/15/22 10:22	06/15/22 17:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/15/22 10:22	06/15/22 17:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	06/15/22 10:22	06/15/22 17:37	1
1,4-Difluorobenzene (Surr)	90		70 - 130	06/15/22 10:22	06/15/22 17:37	1

Lab Sample ID: LCS 880-27599/1-A

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09316		mg/Kg		93	70 - 130
Toluene	0.100	0.09560		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.1073		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2094		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1023		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-27599/2-A

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27599

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08916		mg/Kg		89	70 - 130	4	35
Toluene	0.100	0.08919		mg/Kg		89	70 - 130	7	35
Ethylbenzene	0.100	0.09997		mg/Kg		100	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1941		mg/Kg		97	70 - 130	8	35
o-Xylene	0.100	0.09567		mg/Kg		96	70 - 130	7	35

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

Lab Sample ID: 890-2388-A-32-E MS

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 27599

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.08140		mg/Kg		81	70 - 130
Toluene	<0.00201	U	0.100	0.08190		mg/Kg		82	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09130		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1823		mg/Kg		91	70 - 130
o-Xylene	<0.00201	U	0.100	0.08789		mg/Kg		88	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

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

Lab Sample ID: 890-2388-A-32-E MS

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 27599

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-2388-A-32-F MSD

Matrix: Solid

Analysis Batch: 27608

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 27599

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1052		mg/Kg		106	70 - 130	25	35
Toluene	<0.00201	U	0.0996	0.09673		mg/Kg		97	70 - 130	17	35
Ethylbenzene	<0.00201	U	0.0996	0.1054		mg/Kg		106	70 - 130	14	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2102		mg/Kg		106	70 - 130	14	35
o-Xylene	<0.00201	U	0.0996	0.1033		mg/Kg		104	70 - 130	16	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-27379/1-A

Matrix: Solid

Analysis Batch: 27351

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27379

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		06/13/22 09:28	06/13/22 11:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/13/22 09:28	06/13/22 11:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/22 09:28	06/13/22 11:29	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	100		70 - 130	06/13/22 09:28	06/13/22 11:29	1			
o-Terphenyl	118		70 - 130	06/13/22 09:28	06/13/22 11:29	1			

Lab Sample ID: LCS 880-27379/2-A

Matrix: Solid

Analysis Batch: 27351

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1128		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1452	*+	mg/Kg		145	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	140	S1+	70 - 130
o-Terphenyl	151	S1+	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-27379/3-A

Matrix: Solid

Analysis Batch: 27351

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27379

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1151		mg/Kg		115	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	1407	*+	mg/Kg		141	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	126		70 - 130						
o-Terphenyl	132	S1+	70 - 130						

Lab Sample ID: 880-15766-A-1-B MS

Matrix: Solid

Analysis Batch: 27351

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 27379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1254		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	1208		mg/Kg		121	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	110		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 880-15766-A-1-C MSD

Matrix: Solid

Analysis Batch: 27351

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 27379

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	999	1255		mg/Kg		126	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	999	1273		mg/Kg		127	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	109		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27517/1-A

Matrix: Solid

Analysis Batch: 27729

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			06/17/22 05:22	1

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QC Sample Results

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-27517/2-A						Client Sample ID: Lab Control Sample					
Matrix: Solid						Prep Type: Soluble					
Analysis Batch: 27729											
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.6		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-27517/3-A						Client Sample ID: Lab Control Sample Dup					
Matrix: Solid						Prep Type: Soluble					
Analysis Batch: 27729											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	236.3		mg/Kg		95	90 - 110	2	20

Lab Sample ID: 890-2401-1 MS						Client Sample ID: BH10					
Matrix: Solid						Prep Type: Soluble					
Analysis Batch: 27729											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	19.7		248	247.6		mg/Kg		92	90 - 110		

Lab Sample ID: 890-2401-1 MSD						Client Sample ID: BH10					
Matrix: Solid						Prep Type: Soluble					
Analysis Batch: 27729											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19.7		248	251.2		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

GC VOA

Prep Batch: 27492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27492/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 27499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-2	BH10	Total/NA	Solid	5035	
MB 880-27499/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27499/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27499/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2388-A-19-F MS	Matrix Spike	Total/NA	Solid	5035	
890-2388-A-19-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-2	BH10	Total/NA	Solid	8021B	27499
MB 880-27492/5-A	Method Blank	Total/NA	Solid	8021B	27492
MB 880-27499/5-A	Method Blank	Total/NA	Solid	8021B	27499
LCS 880-27499/1-A	Lab Control Sample	Total/NA	Solid	8021B	27499
LCSD 880-27499/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27499
890-2388-A-19-F MS	Matrix Spike	Total/NA	Solid	8021B	27499
890-2388-A-19-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27499

Prep Batch: 27599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Total/NA	Solid	5035	
MB 880-27599/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27599/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27599/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2388-A-32-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2388-A-32-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Total/NA	Solid	8021B	27599
MB 880-27599/5-A	Method Blank	Total/NA	Solid	8021B	27599
LCS 880-27599/1-A	Lab Control Sample	Total/NA	Solid	8021B	27599
LCSD 880-27599/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27599
890-2388-A-32-E MS	Matrix Spike	Total/NA	Solid	8021B	27599
890-2388-A-32-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27599

Analysis Batch: 27612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Total/NA	Solid	Total BTEX	
890-2401-2	BH10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 27351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Total/NA	Solid	8015B NM	27379
890-2401-2	BH10	Total/NA	Solid	8015B NM	27379
MB 880-27379/1-A	Method Blank	Total/NA	Solid	8015B NM	27379

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QC Association Summary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

GC Semi VOA (Continued)

Analysis Batch: 27351 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-27379/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27379
LCSD 880-27379/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27379
880-15766-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	27379
880-15766-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27379

Prep Batch: 27379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Total/NA	Solid	8015NM Prep	
890-2401-2	BH10	Total/NA	Solid	8015NM Prep	
MB 880-27379/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27379/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27379/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15766-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15766-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Total/NA	Solid	8015 NM	
890-2401-2	BH10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 27517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Soluble	Solid	DI Leach	
890-2401-2	BH10	Soluble	Solid	DI Leach	
MB 880-27517/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27517/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27517/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2401-1 MS	BH10	Soluble	Solid	DI Leach	
890-2401-1 MSD	BH10	Soluble	Solid	DI Leach	

Analysis Batch: 27729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2401-1	BH10	Soluble	Solid	300.0	27517
890-2401-2	BH10	Soluble	Solid	300.0	27517
MB 880-27517/1-A	Method Blank	Soluble	Solid	300.0	27517
LCS 880-27517/2-A	Lab Control Sample	Soluble	Solid	300.0	27517
LCSD 880-27517/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27517
890-2401-1 MS	BH10	Soluble	Solid	300.0	27517
890-2401-1 MSD	BH10	Soluble	Solid	300.0	27517

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Lab Chronicle

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Client Sample ID: BH10

Lab Sample ID: 890-2401-1

Date Collected: 06/09/22 10:00

Matrix: Solid

Date Received: 06/09/22 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	27599	06/15/22 10:22	MR	XEN MID
Total/NA	Analysis	8021B		1			27608	06/16/22 04:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27612	06/15/22 12:05	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			27478	06/14/22 09:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27379	06/13/22 09:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27351	06/13/22 14:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	27517	06/14/22 13:39	SC	XEN MID
Soluble	Analysis	300.0		1			27729	06/17/22 05:46	CH	XEN MID

Client Sample ID: BH10

Lab Sample ID: 890-2401-2

Date Collected: 06/09/22 10:05

Matrix: Solid

Date Received: 06/09/22 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27499	06/14/22 11:32	MR	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	27512	06/15/22 09:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27612	06/15/22 12:05	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			27478	06/14/22 09:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27379	06/13/22 09:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27351	06/13/22 15:07	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	27517	06/14/22 13:39	SC	XEN MID
Soluble	Analysis	300.0		1			27729	06/17/22 06:09	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Laboratory: Eurofins Midland

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

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: RDX Federal 21 #044

Job ID: 890-2401-1
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2401-1	BH10	Solid	06/09/22 10:00	06/09/22 15:52	1
890-2401-2	BH10	Solid	06/09/22 10:05	06/09/22 15:52	4

- 1
- 2
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- 7
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- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

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 _____ of _____

Project Manager:	Anna Byers	Bill to: (if different)	Jim Raley
Company Name:	Ensolum	Company Name:	WPX
Address:	3122 National Parks HWY	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	575-200-6754	Email:	abyers@ensolum.com, jim.raleys@wpn.com

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

Project Name:	RDX Federal 21 #044	Turn Around	Pres. Code	ANALYSIS REQUEST		Preservative Codes
Project Number:	03A1987008	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush				None: NO DI Water: H ₂ O
Project Location:	Eddy County, NM	Due Date:	5 Day TAT			Cool: Cool MeOH: Me
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm				HCL: HC HNO ₃ : HN
CC #:	10611220001					H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				H ₃ PO ₄ : HP
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Thermometer ID:	NDA-007			NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	-0.2			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:	19.0			Zn Acetate+NaOH: Zn
Total Containers:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Corrected Temperature:	15.8			NaOH+Ascorbic Acid: SARC
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
BH10	S	6.9.22	10:00	1'	Grab/	1
BH10	S	6.9.22	10:05	4'	Grab/	1
CHLORIDES (EPA: 300.0)						
TPH (8015)						
BTX (8021)						
890-2401 Chain of Custody						
Sample Comments						
Incident ID napp211553694						

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	B	Cd	Ca	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg	1631 / 245.1 / 7470 / 7471										

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and sub-contractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6.9.22 1553			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2401-1

SDG Number: Eddy County NM

Login Number: 2401

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2401-1

SDG Number: Eddy County NM

Login Number: 2401

List Number: 2

Creator: Rodriguez, Leticia

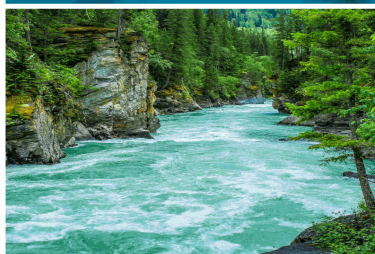
List Source: Eurofins Midland

List Creation: 06/13/22 09:42 AM

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

Report to:

Joseph Hernandez



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDX 21-44

Work Order: E206186

Job Number: 01058-0007

Received: 6/27/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/6/22

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 7/6/22

Joseph Hernandez
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDX 21-44
Workorder: E206186
Date Received: 6/27/2022 8:15:00AM

Joseph Hernandez,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/27/2022 8:15:00AM, under the Project Name: RDX 21-44.

The analytical test results summarized in this report with the Project Name: RDX 21-44 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
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Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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labadmin@envirotech-inc.com

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Office: 505-421-LABS(5227)
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ljjarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDX 21-44 Project Number: 01058-0007 Project Manager: Joseph Hernandez	Reported: 07/06/22 13:45
--	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 0 - 4'	E206186-01A	Soil	06/22/22	06/27/22	Glass Jar, 2 oz.
SW02 0 - 4'	E206186-02A	Soil	06/22/22	06/27/22	Glass Jar, 2 oz.
SW03 0 - 4'	E206186-03A	Soil	06/23/22	06/27/22	Glass Jar, 2 oz.
FS01 4'	E206186-04A	Soil	06/22/22	06/27/22	Glass Jar, 2 oz.
FS02 4'	E206186-05A	Soil	06/22/22	06/27/22	Glass Jar, 2 oz.
FS03 4'	E206186-06A	Soil	06/23/22	06/27/22	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/6/2022 1:45:41PM

SW01 0 - 4'

E206186-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Benzene	ND	0.0250	1	06/28/22	07/05/22	
Ethylbenzene	ND	0.0250	1	06/28/22	07/05/22	
Toluene	ND	0.0250	1	06/28/22	07/05/22	
o-Xylene	ND	0.0250	1	06/28/22	07/05/22	
p,m-Xylene	ND	0.0500	1	06/28/22	07/05/22	
Total Xylenes	ND	0.0250	1	06/28/22	07/05/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	82.0 %	70-130		06/28/22	07/05/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/28/22	07/05/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	81.3 %	70-130		06/28/22	07/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2227053
Diesel Range Organics (C10-C28)	ND	25.0	1	06/28/22	07/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/28/22	07/01/22	
<i>Surrogate: n-Nonane</i>						
	140 %	50-200		06/28/22	07/01/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2227021
Chloride	203	20.0	1	06/27/22	06/30/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/6/2022 1:45:41PM

SW02 0 - 4'

E206186-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Benzene	ND	0.0250	1	06/28/22	07/05/22	
Ethylbenzene	ND	0.0250	1	06/28/22	07/05/22	
Toluene	ND	0.0250	1	06/28/22	07/05/22	
o-Xylene	ND	0.0250	1	06/28/22	07/05/22	
p,m-Xylene	ND	0.0500	1	06/28/22	07/05/22	
Total Xylenes	ND	0.0250	1	06/28/22	07/05/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	81.0 %	70-130		06/28/22	07/05/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/28/22	07/05/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	81.3 %	70-130		06/28/22	07/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2227053
Diesel Range Organics (C10-C28)	ND	25.0	1	06/28/22	07/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/28/22	07/01/22	
<i>Surrogate: n-Nonane</i>						
	131 %	50-200		06/28/22	07/01/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2227021
Chloride	268	20.0	1	06/27/22	06/30/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/6/2022 1:45:41PM

SW03 0 - 4'

E206186-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Benzene	ND	0.0250	1	06/28/22	07/06/22	
Ethylbenzene	ND	0.0250	1	06/28/22	07/06/22	
Toluene	ND	0.0250	1	06/28/22	07/06/22	
o-Xylene	ND	0.0250	1	06/28/22	07/06/22	
p,m-Xylene	ND	0.0500	1	06/28/22	07/06/22	
Total Xylenes	ND	0.0250	1	06/28/22	07/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	80.7 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/28/22	07/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	82.0 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2227053
Diesel Range Organics (C10-C28)	ND	25.0	1	06/28/22	07/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/28/22	07/01/22	
<i>Surrogate: n-Nonane</i>						
	119 %	50-200		06/28/22	07/01/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2227021
Chloride	ND	20.0	1	06/27/22	06/30/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/6/2022 1:45:41PM

FS01 4'

E206186-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Benzene	ND	0.0250	1	06/28/22	07/06/22	
Ethylbenzene	ND	0.0250	1	06/28/22	07/06/22	
Toluene	ND	0.0250	1	06/28/22	07/06/22	
o-Xylene	ND	0.0250	1	06/28/22	07/06/22	
p,m-Xylene	ND	0.0500	1	06/28/22	07/06/22	
Total Xylenes	ND	0.0250	1	06/28/22	07/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	81.0 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/28/22	07/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	81.5 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2227053
Diesel Range Organics (C10-C28)	ND	25.0	1	06/28/22	07/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/28/22	07/01/22	
<i>Surrogate: n-Nonane</i>						
	137 %	50-200		06/28/22	07/01/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2227021
Chloride	2080	20.0	1	06/27/22	06/30/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/6/2022 1:45:41PM

FS02 4'

E206186-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Benzene	ND	0.0250	1	06/28/22	07/06/22	
Ethylbenzene	ND	0.0250	1	06/28/22	07/06/22	
Toluene	ND	0.0250	1	06/28/22	07/06/22	
o-Xylene	ND	0.0250	1	06/28/22	07/06/22	
p,m-Xylene	ND	0.0500	1	06/28/22	07/06/22	
Total Xylenes	ND	0.0250	1	06/28/22	07/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	82.5 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/28/22	07/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	82.6 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2227053
Diesel Range Organics (C10-C28)	ND	25.0	1	06/28/22	07/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/28/22	07/01/22	
<i>Surrogate: n-Nonane</i>						
	136 %	50-200		06/28/22	07/01/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2227021
Chloride	4340	20.0	1	06/27/22	06/30/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/6/2022 1:45:41PM

FS03 4'

E206186-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Benzene	ND	0.0250	1	06/28/22	07/06/22	
Ethylbenzene	ND	0.0250	1	06/28/22	07/06/22	
Toluene	ND	0.0250	1	06/28/22	07/06/22	
o-Xylene	ND	0.0250	1	06/28/22	07/06/22	
p,m-Xylene	ND	0.0500	1	06/28/22	07/06/22	
Total Xylenes	ND	0.0250	1	06/28/22	07/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	82.8 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2227044
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/28/22	07/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	82.5 %	70-130		06/28/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2227053
Diesel Range Organics (C10-C28)	ND	25.0	1	06/28/22	07/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/28/22	07/01/22	
<i>Surrogate: n-Nonane</i>						
	142 %	50-200		06/28/22	07/01/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2227021
Chloride	2890	20.0	1	06/27/22	06/30/22	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/6/2022 1:45:41PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2227044-BLK1)

Prepared: 06/28/22 Analyzed: 07/05/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.65		8.00		83.1	70-130			

LCS (2227044-BS1)

Prepared: 06/28/22 Analyzed: 07/05/22

Benzene	5.42	0.0250	5.00		108	70-130			
Ethylbenzene	5.24	0.0250	5.00		105	70-130			
Toluene	5.63	0.0250	5.00		113	70-130			
o-Xylene	5.10	0.0250	5.00		102	70-130			
p,m-Xylene	10.6	0.0500	10.0		106	70-130			
Total Xylenes	15.7	0.0250	15.0		105	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.65		8.00		83.1	70-130			

LCS Dup (2227044-BSD1)

Prepared: 06/28/22 Analyzed: 07/05/22

Benzene	5.85	0.0250	5.00		117	70-130	7.62	20	
Ethylbenzene	5.65	0.0250	5.00		113	70-130	7.66	20	
Toluene	6.09	0.0250	5.00		122	70-130	7.73	20	
o-Xylene	5.50	0.0250	5.00		110	70-130	7.44	20	
p,m-Xylene	11.4	0.0500	10.0		114	70-130	7.55	20	
Total Xylenes	16.9	0.0250	15.0		113	70-130	7.51	20	
Surrogate: 4-Bromochlorobenzene-PID	6.61		8.00		82.6	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/6/2022 1:45:41PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2227044-BLK1) Prepared: 06/28/22 Analyzed: 07/05/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.48		8.00		81.0	70-130			

LCS (2227044-BS2) Prepared: 06/28/22 Analyzed: 07/05/22

Gasoline Range Organics (C6-C10)	41.6	20.0	50.0		83.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.52		8.00		81.6	70-130			

LCS Dup (2227044-BSD2) Prepared: 06/28/22 Analyzed: 07/05/22

Gasoline Range Organics (C6-C10)	43.3	20.0	50.0		86.6	70-130	3.93	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.62		8.00		82.7	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/6/2022 1:45:41PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2227053-BLK1)

Prepared: 06/28/22 Analyzed: 06/30/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	58.7		50.0		117	50-200			

LCS (2227053-BS1)

Prepared: 06/28/22 Analyzed: 06/30/22

Diesel Range Organics (C10-C28)	512	25.0	500		102	38-132			
Surrogate: <i>n</i> -Nonane	56.5		50.0		113	50-200			

Matrix Spike (2227053-MS1)

Source: E206184-06

Prepared: 06/28/22 Analyzed: 06/30/22

Diesel Range Organics (C10-C28)	642	25.0	500	ND	128	38-132			
Surrogate: <i>n</i> -Nonane	71.0		50.0		142	50-200			

Matrix Spike Dup (2227053-MSD1)

Source: E206184-06

Prepared: 06/28/22 Analyzed: 06/30/22

Diesel Range Organics (C10-C28)	643	25.0	500	ND	129	38-132	0.148	20	
Surrogate: <i>n</i> -Nonane	71.8		50.0		144	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/6/2022 1:45:41PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2227021-BLK1)					Prepared: 06/27/22 Analyzed: 06/29/22				
Chloride	ND	20.0							
LCS (2227021-BS1)					Prepared: 06/27/22 Analyzed: 06/29/22				
Chloride	250	20.0	250		99.8	90-110			
Matrix Spike (2227021-MS1)					Source: E206184-01		Prepared: 06/27/22 Analyzed: 06/29/22		
Chloride	257	40.0	250	ND	103	80-120			
Matrix Spike Dup (2227021-MSD1)					Source: E206184-01		Prepared: 06/27/22 Analyzed: 06/29/22		
Chloride	253	40.0	250	ND	101	80-120	1.44	20	

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 may differ slightly.



Definitions and Notes

WPX Energy - Carlsbad	Project Name:	RDX 21-44	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	07/06/22 13:45

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: WPX		Bill To		Lab Use Only				TAT				EPA Program	
Project: RDX 21-44		Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Joseph Hernandez		Address: 5315 Buena Vista Dr.		E2001810		01058-0007					5 DAY		
Address: 3122 National Parks HWY		City, State, Zip: Carlsbad, NM, 88220		Analysis and Method									
City, State, Zip: Carlsbad, NM, 88220		Phone:											
Phone: 281-702-2329		Email: jim.raley@dvn.com											
Email: jhernandez@ensolum.com													
Report due by:													

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
1400	6.22.22	S	1	SW01	1	0-4'							X		Incident ID: nAPP2115533694
1430	6.22.22	S	1	SW02	2	0-4'							X		Cost Center: 1061122001
1200	6.23.22	S	1	SW03	3	0-4'							X		
1500	6.22.22	S	1	FS01	4	4'							X		
1530	6.22.22	S	1	FS02	5	4'							X		
1230	6.23.22	S	1	FS03	6	4'							X		

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: **GILBERT MORENO**

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	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

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 laboratory is limited to the amount paid for on the report.



envirotech

Envirotech Analytical Laboratory

Printed: 6/28/2022 9:30:18AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	06/27/22 08:15	Work Order ID:	E206186
Phone:	(539) 573-4018	Date Logged In:	06/27/22 09:51	Logged In By:	Caitlin Christian
Email:	jhernandez@ensolum.com	Due Date:	07/01/22 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: UPSComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

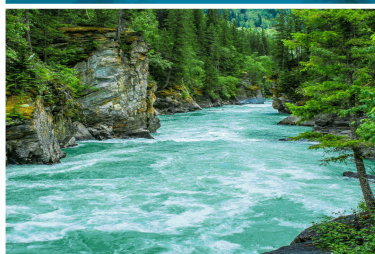
Date



envirotech Inc.

Report to:

Joseph Hernandez



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDX 21-44

Work Order: E206230

Job Number: 01058-0007

Received: 6/29/2022

Revision: 5

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/11/22

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 7/11/22

Joseph Hernandez
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDX 21-44
Workorder: E206230
Date Received: 6/29/2022 8:00:00AM

Joseph Hernandez,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/29/2022 8:00:00AM, under the Project Name: RDX 21-44.

The analytical test results summarized in this report with the Project Name: RDX 21-44 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
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Cell: 775-287-1762
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Sample Summary

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported: 07/11/22 14:48
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS04 4'	E206230-01A	Soil	06/27/22	06/29/22	Glass Jar, 4 oz.
FS05 4'	E206230-02A	Soil	06/27/22	06/29/22	Glass Jar, 4 oz.
FS06 4'	E206230-03A	Soil	06/27/22	06/29/22	Glass Jar, 4 oz.
FS07 4'	E206230-04A	Soil	06/27/22	06/29/22	Glass Jar, 4 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/11/2022 2:48:14PM

FS04 4'

E206230-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Benzene	ND	0.0250	1	07/01/22	07/06/22	
Ethylbenzene	ND	0.0250	1	07/01/22	07/06/22	
Toluene	ND	0.0250	1	07/01/22	07/06/22	
o-Xylene	ND	0.0250	1	07/01/22	07/06/22	
p,m-Xylene	ND	0.0500	1	07/01/22	07/06/22	
Total Xylenes	ND	0.0250	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	97.2 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	94.7 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	97.2 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	94.7 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228002
Diesel Range Organics (C10-C28)	ND	25.0	1	07/05/22	07/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/05/22	07/05/22	
Surrogate: n-Nonane	114 %	50-200		07/05/22	07/05/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228006
Chloride	1370	20.0	1	07/05/22	07/06/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/11/2022 2:48:14PM

FS05 4'

E206230-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Benzene	ND	0.0250	1	07/01/22	07/06/22	
Ethylbenzene	ND	0.0250	1	07/01/22	07/06/22	
Toluene	ND	0.0250	1	07/01/22	07/06/22	
o-Xylene	ND	0.0250	1	07/01/22	07/06/22	
p,m-Xylene	ND	0.0500	1	07/01/22	07/06/22	
Total Xylenes	ND	0.0250	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	98.5 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	95.5 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	98.5 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	95.5 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228002
Diesel Range Organics (C10-C28)	ND	25.0	1	07/05/22	07/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/05/22	07/05/22	
Surrogate: n-Nonane	117 %	50-200		07/05/22	07/05/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228006
Chloride	463	20.0	1	07/05/22	07/06/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/11/2022 2:48:14PM

FS06 4'

E206230-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Benzene	ND	0.0250	1	07/01/22	07/06/22	
Ethylbenzene	ND	0.0250	1	07/01/22	07/06/22	
Toluene	ND	0.0250	1	07/01/22	07/06/22	
o-Xylene	ND	0.0250	1	07/01/22	07/06/22	
p,m-Xylene	ND	0.0500	1	07/01/22	07/06/22	
Total Xylenes	ND	0.0250	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	95.9 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	105 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	95.1 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	95.9 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	105 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	95.1 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228002
Diesel Range Organics (C10-C28)	ND	25.0	1	07/05/22	07/06/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/05/22	07/06/22	
Surrogate: n-Nonane	117 %	50-200		07/05/22	07/06/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228006
Chloride	959	20.0	1	07/05/22	07/06/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/11/2022 2:48:14PM

FS07 4'

E206230-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Benzene	ND	0.0250	1	07/01/22	07/06/22	
Ethylbenzene	ND	0.0250	1	07/01/22	07/06/22	
Toluene	ND	0.0250	1	07/01/22	07/06/22	
o-Xylene	ND	0.0250	1	07/01/22	07/06/22	
p,m-Xylene	ND	0.0500	1	07/01/22	07/06/22	
Total Xylenes	ND	0.0250	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	95.3 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	107 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	94.2 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2227139
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/01/22	07/06/22	
Surrogate: Bromofluorobenzene	95.3 %	70-130		07/01/22	07/06/22	
Surrogate: 1,2-Dichloroethane-d4	107 %	70-130		07/01/22	07/06/22	
Surrogate: Toluene-d8	94.2 %	70-130		07/01/22	07/06/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228002
Diesel Range Organics (C10-C28)	ND	25.0	1	07/05/22	07/06/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/05/22	07/06/22	
Surrogate: n-Nonane	115 %	50-200		07/05/22	07/06/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228006
Chloride	3880	40.0	2	07/05/22	07/06/22	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/11/2022 2:48:14PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2227139-BLK1)

Prepared: 07/01/22 Analyzed: 07/06/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.478		0.500		95.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.480		0.500		96.0	70-130			

LCS (2227139-BS1)

Prepared: 07/01/22 Analyzed: 07/06/22

Benzene	2.36	0.0250	2.50		94.3	70-130			
Ethylbenzene	2.38	0.0250	2.50		95.2	70-130			
Toluene	2.35	0.0250	2.50		93.8	70-130			
o-Xylene	2.47	0.0250	2.50		98.9	70-130			
p,m-Xylene	4.83	0.0500	5.00		96.5	70-130			
Total Xylenes	7.30	0.0250	7.50		97.3	70-130			
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.6	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.7	70-130			

LCS Dup (2227139-BSD1)

Prepared: 07/01/22 Analyzed: 07/06/22

Benzene	2.23	0.0250	2.50		89.0	70-130	5.83	23	
Ethylbenzene	2.30	0.0250	2.50		92.0	70-130	3.42	27	
Toluene	2.26	0.0250	2.50		90.3	70-130	3.82	24	
o-Xylene	2.40	0.0250	2.50		96.0	70-130	3.00	27	
p,m-Xylene	4.66	0.0500	5.00		93.1	70-130	3.64	27	
Total Xylenes	7.05	0.0250	7.50		94.1	70-130	3.42	27	
Surrogate: Bromofluorobenzene	0.520		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.5	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/11/2022 2:48:14PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2227139-BLK1)

Prepared: 07/01/22 Analyzed: 07/06/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.478		0.500		95.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.480		0.500		96.0	70-130			

LCS (2227139-BS2)

Prepared: 07/01/22 Analyzed: 07/06/22

Gasoline Range Organics (C6-C10)	45.2	20.0	50.0		90.4	70-130			
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.493		0.500		98.6	70-130			

LCS Dup (2227139-BSD2)

Prepared: 07/01/22 Analyzed: 07/06/22

Gasoline Range Organics (C6-C10)	44.4	20.0	50.0		88.9	70-130	1.76	20	
Surrogate: Bromofluorobenzene	0.506		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.493		0.500		98.6	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/11/2022 2:48:14PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2228002-BLK1) Prepared: 07/05/22 Analyzed: 07/05/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	56.9		50.0		114	50-200			

LCS (2228002-BS1) Prepared: 07/05/22 Analyzed: 07/05/22

Diesel Range Organics (C10-C28)	508	25.0	500		102	38-132			
Surrogate: n-Nonane	56.0		50.0		112	50-200			

Matrix Spike (2228002-MS1) Source: E206231-01 Prepared: 07/05/22 Analyzed: 07/05/22

Diesel Range Organics (C10-C28)	614	50.0	500	ND	123	38-132			
Surrogate: n-Nonane	72.1		50.0		144	50-200			

Matrix Spike Dup (2228002-MSD1) Source: E206231-01 Prepared: 07/05/22 Analyzed: 07/05/22

Diesel Range Organics (C10-C28)	620	50.0	500	ND	124	38-132	0.950	20	
Surrogate: n-Nonane	71.2		50.0		142	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/11/2022 2:48:14PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2228006-BLK1)					Prepared: 07/05/22 Analyzed: 07/06/22				
Chloride	ND	20.0							
LCS (2228006-BS1)					Prepared: 07/05/22 Analyzed: 07/06/22				
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2228006-MS1)					Source: E206229-01		Prepared: 07/05/22 Analyzed: 07/06/22		
Chloride	307	40.0	250	55.2	101	80-120			
Matrix Spike Dup (2228006-MSD1)					Source: E206229-01		Prepared: 07/05/22 Analyzed: 07/06/22		
Chloride	294	40.0	250	55.2	95.7	80-120	4.25	20	

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 may differ slightly.



Definitions and Notes


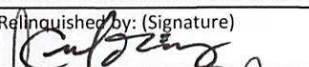
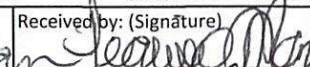
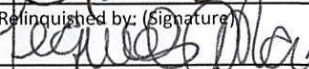
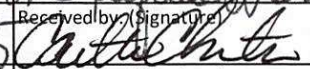
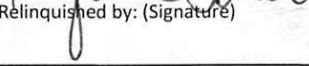
WPX Energy - Carlsbad	Project Name:	RDX 21-44	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	07/11/22 14:48

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: WPX				Bill To				Lab Use Only				TAT				EPA Program						
Project: RDX 21-44				Attention: Jim Raley				Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA					
Project Manager: Joseph Hernandez				Address: 5315 Buena Vista Dr.				E206230		01058-001					5 Day TAT							
Address: 3122 National Parks HWY				City, State, Zip: Carlsbad, NM, 88220				Analysis and Method												RCRA		
City, State, Zip: Carlsbad, NM, 88220				Phone:				Depth(ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	State					
Phone: 281-702-2329				Email:jim.raley@dvn.com													NM	CO	UT	AZ	TX	
Email: jhernandez@ensolum.com																						
Report due by:																		Remarks				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID				Lab Number														
15:00	6.27.22	S	1	FS04				1	4'						X			Incident ID: nAPP2115533694				
15:10	6.27.22	S	1	FS05				2	4'						X			Cost Center:1061122001				
15:30	6.27.22	S	1	FS06				3	4'						X							
15:45	6.27.22	S	1	FS07				4	4'						X							
																						
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.														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	Lab Use Only										
				6/28/22	10:58am					6/28/22	11:00	Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N										
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time	T1 T2 T3										
				6/28/22	6:15					6/29/22	8:00											
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time	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 laboratory is limited to the amount paid for on the report.																						

Envirotech Analytical Laboratory

Printed: 6/29/2022 5:08:41PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	06/29/22 08:00	Work Order ID:	E206230
Phone:	(539) 573-4018	Date Logged In:	06/29/22 10:10	Logged In By:	Caitlin Christian
Email:	jhernandez@ensolum.com	Due Date:	07/06/22 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

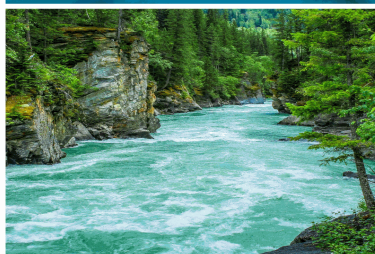
Date



envirotech Inc.

Report to:

Joseph Hernandez



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDX 21-44

Work Order: E207003

Job Number: 01058-0007

Received: 7/1/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/8/22

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 7/8/22

Joseph Hernandez
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDX 21-44
Workorder: E207003
Date Received: 7/1/2022 10:02:00AM

Joseph Hernandez,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/1/2022 10:02:00AM, under the Project Name: RDX 21-44.

The analytical test results summarized in this report with the Project Name: RDX 21-44 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
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West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	07/08/22 13:38

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW04	E207003-01A	Soil	06/29/22	07/01/22	Glass Jar, 4 oz.
SW05	E207003-02A	Soil	06/29/22	07/01/22	Glass Jar, 4 oz.
FS08	E207003-03A	Soil	06/29/22	07/01/22	Glass Jar, 4 oz.
FS09	E207003-04A	Soil	06/29/22	07/01/22	Glass Jar, 4 oz.
FS10	E207003-05A	Soil	06/29/22	07/01/22	Glass Jar, 4 oz.
FS11	E207003-06A	Soil	06/29/22	07/01/22	Glass Jar, 4 oz.



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDX 21-44 Project Number: 01058-0007 Project Manager: Joseph Hernandez	Reported: 7/8/2022 1:38:29PM
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SW04

E207003-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Benzene	ND	0.0250	1	07/05/22	07/07/22	
Ethylbenzene	ND	0.0250	1	07/05/22	07/07/22	
Toluene	ND	0.0250	1	07/05/22	07/07/22	
o-Xylene	ND	0.0250	1	07/05/22	07/07/22	
p,m-Xylene	ND	0.0500	1	07/05/22	07/07/22	
Total Xylenes	ND	0.0250	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	94.3 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	95.1 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	94.3 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	95.1 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228033
Diesel Range Organics (C10-C28)	ND	25.0	1	07/07/22	07/07/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/07/22	07/07/22	
Surrogate: n-Nonane	110 %	50-200		07/07/22	07/07/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228039
Chloride	216	20.0	1	07/07/22	07/07/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/8/2022 1:38:29PM

SW05

E207003-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Benzene	ND	0.0250	1	07/05/22	07/07/22	
Ethylbenzene	ND	0.0250	1	07/05/22	07/07/22	
Toluene	ND	0.0250	1	07/05/22	07/07/22	
o-Xylene	ND	0.0250	1	07/05/22	07/07/22	
p,m-Xylene	ND	0.0500	1	07/05/22	07/07/22	
Total Xylenes	ND	0.0250	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	95.6 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	97.3 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	95.6 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	97.3 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228033
Diesel Range Organics (C10-C28)	ND	25.0	1	07/07/22	07/07/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/07/22	07/07/22	
Surrogate: n-Nonane	105 %	50-200		07/07/22	07/07/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228039
Chloride	161	20.0	1	07/07/22	07/07/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/8/2022 1:38:29PM

FS08

E207003-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Benzene	ND	0.0250	1	07/05/22	07/07/22	
Ethylbenzene	ND	0.0250	1	07/05/22	07/07/22	
Toluene	ND	0.0250	1	07/05/22	07/07/22	
o-Xylene	ND	0.0250	1	07/05/22	07/07/22	
p,m-Xylene	ND	0.0500	1	07/05/22	07/07/22	
Total Xylenes	ND	0.0250	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene		91.3 %	70-130	07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	07/05/22	07/07/22	
Surrogate: Toluene-d8		93.4 %	70-130	07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene		91.3 %	70-130	07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	07/05/22	07/07/22	
Surrogate: Toluene-d8		93.4 %	70-130	07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228033
Diesel Range Organics (C10-C28)	ND	25.0	1	07/07/22	07/07/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/07/22	07/07/22	
Surrogate: n-Nonane		107 %	50-200	07/07/22	07/07/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228039
Chloride	391	20.0	1	07/07/22	07/07/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/8/2022 1:38:29PM

FS09

E207003-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Benzene	ND	0.0250	1	07/05/22	07/07/22	
Ethylbenzene	ND	0.0250	1	07/05/22	07/07/22	
Toluene	ND	0.0250	1	07/05/22	07/07/22	
o-Xylene	ND	0.0250	1	07/05/22	07/07/22	
p,m-Xylene	ND	0.0500	1	07/05/22	07/07/22	
Total Xylenes	ND	0.0250	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	94.1 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	94.4 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	94.1 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	94.4 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228033
Diesel Range Organics (C10-C28)	ND	25.0	1	07/07/22	07/07/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/07/22	07/07/22	
Surrogate: n-Nonane	105 %	50-200		07/07/22	07/07/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228039
Chloride	1620	20.0	1	07/07/22	07/07/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/8/2022 1:38:29PM

FS10

E207003-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Benzene	ND	0.0250	1	07/05/22	07/07/22	
Ethylbenzene	ND	0.0250	1	07/05/22	07/07/22	
Toluene	ND	0.0250	1	07/05/22	07/07/22	
o-Xylene	ND	0.0250	1	07/05/22	07/07/22	
p,m-Xylene	ND	0.0500	1	07/05/22	07/07/22	
Total Xylenes	ND	0.0250	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	93.6 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	95.5 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	93.6 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	95.5 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228033
Diesel Range Organics (C10-C28)	ND	25.0	1	07/07/22	07/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/07/22	07/08/22	
Surrogate: n-Nonane	100 %	50-200		07/07/22	07/08/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228039
Chloride	1630	20.0	1	07/07/22	07/07/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/8/2022 1:38:29PM

FS11

E207003-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Benzene	ND	0.0250	1	07/05/22	07/07/22	
Ethylbenzene	ND	0.0250	1	07/05/22	07/07/22	
Toluene	ND	0.0250	1	07/05/22	07/07/22	
o-Xylene	ND	0.0250	1	07/05/22	07/07/22	
p,m-Xylene	ND	0.0500	1	07/05/22	07/07/22	
Total Xylenes	ND	0.0250	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	93.4 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	94.7 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2228012
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/05/22	07/07/22	
Surrogate: Bromofluorobenzene	93.4 %	70-130		07/05/22	07/07/22	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		07/05/22	07/07/22	
Surrogate: Toluene-d8	94.7 %	70-130		07/05/22	07/07/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2228033
Diesel Range Organics (C10-C28)	ND	25.0	1	07/07/22	07/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/07/22	07/08/22	
Surrogate: n-Nonane	104 %	50-200		07/07/22	07/08/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2228039
Chloride	2260	20.0	1	07/07/22	07/07/22	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/8/2022 1:38:29PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2228012-BLK1)

Prepared: 07/05/22 Analyzed: 07/07/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.475		0.500		95.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.482		0.500		96.4	70-130			

LCS (2228012-BS1)

Prepared: 07/05/22 Analyzed: 07/07/22

Benzene	2.13	0.0250	2.50		85.4	70-130			
Ethylbenzene	2.15	0.0250	2.50		86.0	70-130			
Toluene	2.15	0.0250	2.50		85.8	70-130			
o-Xylene	2.26	0.0250	2.50		90.5	70-130			
p,m-Xylene	4.41	0.0500	5.00		88.3	70-130			
Total Xylenes	6.68	0.0250	7.50		89.0	70-130			
Surrogate: Bromofluorobenzene	0.511		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			

LCS Dup (2228012-BSD1)

Prepared: 07/05/22 Analyzed: 07/07/22

Benzene	2.22	0.0250	2.50		89.0	70-130	4.11	23	
Ethylbenzene	2.24	0.0250	2.50		89.7	70-130	4.21	27	
Toluene	2.23	0.0250	2.50		89.3	70-130	4.02	24	
o-Xylene	2.34	0.0250	2.50		93.8	70-130	3.56	27	
p,m-Xylene	4.59	0.0500	5.00		91.9	70-130	3.96	27	
Total Xylenes	6.94	0.0250	7.50		92.5	70-130	3.83	27	
Surrogate: Bromofluorobenzene	0.504		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.1	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/8/2022 1:38:29PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2228012-BLK1)

Prepared: 07/05/22 Analyzed: 07/07/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.475		0.500		95.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.482		0.500		96.4	70-130			

LCS (2228012-BS2)

Prepared: 07/05/22 Analyzed: 07/07/22

Gasoline Range Organics (C6-C10)	40.6	20.0	50.0		81.3	70-130			
Surrogate: Bromofluorobenzene	0.491		0.500		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.8	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.8	70-130			

LCS Dup (2228012-BSD2)

Prepared: 07/05/22 Analyzed: 07/07/22

Gasoline Range Organics (C6-C10)	43.5	20.0	50.0		87.0	70-130	6.78	20	
Surrogate: Bromofluorobenzene	0.495		0.500		99.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/8/2022 1:38:29PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2228033-BLK1)

Prepared: 07/07/22 Analyzed: 07/07/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	52.4		50.0		105	50-200			

LCS (2228033-BS1)

Prepared: 07/07/22 Analyzed: 07/07/22

Diesel Range Organics (C10-C28)	450	25.0	500		90.0	38-132			
Surrogate: <i>n</i> -Nonane	46.8		50.0		93.5	50-200			

Matrix Spike (2228033-MS1)

Source: E207004-01

Prepared: 07/07/22 Analyzed: 07/07/22

Diesel Range Organics (C10-C28)	459	25.0	500	ND	91.7	38-132			
Surrogate: <i>n</i> -Nonane	50.9		50.0		102	50-200			

Matrix Spike Dup (2228033-MSD1)

Source: E207004-01

Prepared: 07/07/22 Analyzed: 07/07/22

Diesel Range Organics (C10-C28)	477	25.0	500	ND	95.5	38-132	4.01	20	
Surrogate: <i>n</i> -Nonane	53.5		50.0		107	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/8/2022 1:38:29PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2228039-BLK1)					Prepared: 07/07/22 Analyzed: 07/07/22				
Chloride	ND	20.0							
LCS (2228039-BS1)					Prepared: 07/07/22 Analyzed: 07/07/22				
Chloride	245	20.0	250		98.1	90-110			
Matrix Spike (2228039-MS1)					Source: E207002-01		Prepared: 07/07/22 Analyzed: 07/07/22		
Chloride	247	20.0	250	ND	98.7	80-120			
Matrix Spike Dup (2228039-MSD1)					Source: E207002-01		Prepared: 07/07/22 Analyzed: 07/07/22		
Chloride	249	20.0	250	ND	99.6	80-120	0.945	20	

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 may differ slightly.



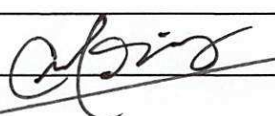
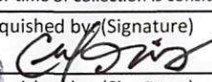
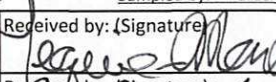
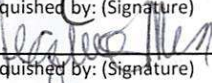
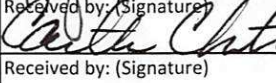
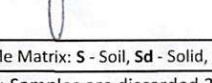
Definitions and Notes

WPX Energy - Carlsbad	Project Name:	RDX 21-44	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	07/08/22 13:38

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX				Bill To				Lab Use Only				TAT				EPA Program			
Project: RDX 21-44				Attention: Jim Raley				Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA		
Project Manager: Joseph Hernandez				Address: 5315 Buena Vista Dr.				E20700.3		D1058-0057					5 Day TAT				
Address: 3122 National Parks HWY				City, State, Zip: Carlsbad, NM, 88220				Analysis and Method										RCRA	
City, State, Zip: Carlsbad, NM, 88220				Phone:														State	
Phone: 281-702-2329				Email: jim.raley@dvn.com														NM CO UT AZ TX	
Email: jhernandez@ensolum.com																			
Report due by:																			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks				
10:00	6.29.22	S	1	SW04	1	0-4'							X		Incident ID: nAPP2115533694				
10:30	6.29.22	S	1	SW05	2	0-4'							X		Cost Center: 1061122001				
14:00	6.28.22	S	1	FS08	3	4'							X						
15:00	6.29.22	S	1	FS09	4	4'							X						
15:30	6.29.22	S	1	FS10	5	4'							X						
16:00	6.29.22	S	1	FS11	6	4'							X						
																			
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.												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: 6/30/22 Time: 10:15												Received by: (Signature)  Date: 6-30-22 Time: 10:15							
Relinquished by: (Signature)  Date: 6-30-22 Time: 10:15												Received by: (Signature)  Date: 7/1/22 Time: 10:02							
Relinquished by: (Signature)  Date: Time:												Received by: (Signature) Date: Time:							
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 laboratory is limited to the amount paid for on the report.																			



Envirotech Analytical Laboratory

Printed: 7/1/2022 1:17:00PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	07/01/22 10:02	Work Order ID:	E207003
Phone:	(539) 573-4018	Date Logged In:	07/01/22 10:56	Logged In By:	Caitlin Christian
Email:	jhernandez@ensolum.com	Due Date:	07/08/22 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: UPSComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:

Joseph Hernandez



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDX 21-44

Work Order: E207036

Job Number: 01058-0007

Received: 7/8/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/13/22

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 7/13/22

Joseph Hernandez
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDX 21-44
Workorder: E207036
Date Received: 7/8/2022 10:15:00AM

Joseph Hernandez,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/8/2022 10:15:00AM, under the Project Name: RDX 21-44.

The analytical test results summarized in this report with the Project Name: RDX 21-44 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

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Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDX 21-44 Project Number: 01058-0007 Project Manager: Joseph Hernandez	Reported: 07/13/22 17:01
--	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW06 0 - 4'	E207036-01A	Soil	06/30/22	07/08/22	Glass Jar, 2 oz.
SW07 0 - 4'	E207036-02A	Soil	06/30/22	07/08/22	Glass Jar, 2 oz.
SW08 0 - 4'	E207036-03A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
SW09 0 - 4'	E207036-04A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
SW10 0 - 4'	E207036-05A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
SW11 0 - 4'	E207036-06A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
SW12 0 - 4'	E207036-07A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS12 4'	E207036-08A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS13 4'	E207036-09A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS14 4'	E207036-10A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS15 4'	E207036-11A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS16 4'	E207036-12A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS17 4'	E207036-13A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS18 4'	E207036-14A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS19 4'	E207036-15A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.
FS20 4'	E207036-16A	Soil	07/06/22	07/08/22	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW06 0 - 4'

E207036-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
Surrogate: 4-Bromochlorobenzene-PID	99.0 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.0 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
Surrogate: n-Nonane	107 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	192	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW07 0 - 4'

E207036-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	97.0 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.7 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	119 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	142	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW08 0 - 4'

E207036-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.9 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.5 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	104 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	57.6	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW09 0 - 4'

E207036-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.0 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.5 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	102 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	289	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW10 0 - 4'

E207036-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.4 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.9 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	99.7 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	197	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW11 0 - 4'

E207036-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.9 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.2 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	109 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	96.9	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

SW12 0 - 4'

E207036-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		100 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.1 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
		107 %	50-200	07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	36.6	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS12 4'

E207036-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.2 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
		108 %	50-200	07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	237	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS13 4'

E207036-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.9 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	2510	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS14 4'

E207036-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.6 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.9 %	70-130		07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	2580	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS15 4'

E207036-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		110 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		102 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
		119 %	50-200	07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	232	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS16 4'

E207036-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		111 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		103 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
		114 %	50-200	07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	1770	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS17 4'

E207036-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		111 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		105 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/11/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/11/22	
<i>Surrogate: n-Nonane</i>						
		100 %	50-200	07/11/22	07/11/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	594	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS18 4'

E207036-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		111 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		105 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/12/22	
<i>Surrogate: n-Nonane</i>						
		95.7 %	50-200	07/11/22	07/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	430	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS19 4'

E207036-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		112 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		106 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/12/22	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	07/11/22	07/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	216	20.0	1	07/11/22	07/11/22	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDX 21-44
Project Number: 01058-0007
Project Manager: Joseph Hernandez

Reported:
7/13/2022 5:01:33PM

FS20 4'

E207036-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Benzene	ND	0.0250	1	07/11/22	07/12/22	
Ethylbenzene	ND	0.0250	1	07/11/22	07/12/22	
Toluene	ND	0.0250	1	07/11/22	07/12/22	
o-Xylene	ND	0.0250	1	07/11/22	07/12/22	
p,m-Xylene	ND	0.0500	1	07/11/22	07/12/22	
Total Xylenes	ND	0.0250	1	07/11/22	07/12/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		115 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2229023
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/22	07/12/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		105 %	70-130	07/11/22	07/12/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2229008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/22	07/12/22	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/22	07/12/22	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	07/11/22	07/12/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2229017
Chloride	1260	20.0	1	07/11/22	07/11/22	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/13/2022 5:01:33PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2229023-BLK1)

Prepared: 07/11/22 Analyzed: 07/12/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.67		8.00		95.8	70-130			

LCS (2229023-BS1)

Prepared: 07/11/22 Analyzed: 07/12/22

Benzene	5.01	0.0250	5.00		100	70-130			
Ethylbenzene	4.44	0.0250	5.00		88.8	70-130			
Toluene	4.76	0.0250	5.00		95.3	70-130			
o-Xylene	4.68	0.0250	5.00		93.7	70-130			
p,m-Xylene	9.13	0.0500	10.0		91.3	70-130			
Total Xylenes	13.8	0.0250	15.0		92.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.85		8.00		98.1	70-130			

Matrix Spike (2229023-MS1)

Source: E207036-02

Prepared: 07/11/22 Analyzed: 07/12/22

Benzene	5.04	0.0250	5.00	ND	101	54-133			
Ethylbenzene	4.50	0.0250	5.00	ND	90.1	61-133			
Toluene	4.81	0.0250	5.00	ND	96.2	61-130			
o-Xylene	4.75	0.0250	5.00	ND	95.0	63-131			
p,m-Xylene	9.28	0.0500	10.0	ND	92.8	63-131			
Total Xylenes	14.0	0.0250	15.0	ND	93.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.99		8.00		99.9	70-130			

Matrix Spike Dup (2229023-MSD1)

Source: E207036-02

Prepared: 07/11/22 Analyzed: 07/12/22

Benzene	5.03	0.0250	5.00	ND	101	54-133	0.188	20	
Ethylbenzene	4.49	0.0250	5.00	ND	89.8	61-133	0.270	20	
Toluene	4.80	0.0250	5.00	ND	96.0	61-130	0.205	20	
o-Xylene	4.73	0.0250	5.00	ND	94.6	63-131	0.442	20	
p,m-Xylene	9.25	0.0500	10.0	ND	92.5	63-131	0.377	20	
Total Xylenes	14.0	0.0250	15.0	ND	93.2	63-131	0.399	20	
Surrogate: 4-Bromochlorobenzene-PID	7.98		8.00		99.7	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/13/2022 5:01:33PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2229023-BLK1)

Prepared: 07/11/22 Analyzed: 07/12/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.3	70-130			

LCS (2229023-BS2)

Prepared: 07/11/22 Analyzed: 07/12/22

Gasoline Range Organics (C6-C10)	46.4	20.0	50.0		92.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.0	70-130			

Matrix Spike (2229023-MS2)

Source: E207036-02

Prepared: 07/11/22 Analyzed: 07/12/22

Gasoline Range Organics (C6-C10)	46.0	20.0	50.0	ND	92.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.1	70-130			

Matrix Spike Dup (2229023-MSD2)

Source: E207036-02

Prepared: 07/11/22 Analyzed: 07/12/22

Gasoline Range Organics (C6-C10)	46.1	20.0	50.0	ND	92.1	70-130	0.0998	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/13/2022 5:01:33PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2229008-BLK1)

Prepared: 07/11/22 Analyzed: 07/11/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	60.9		50.0		122	50-200			

LCS (2229008-BS1)

Prepared: 07/11/22 Analyzed: 07/11/22

Diesel Range Organics (C10-C28)	518	25.0	500		104	38-132			
Surrogate: n-Nonane	52.2		50.0		104	50-200			

Matrix Spike (2229008-MS1)

Source: E207036-09

Prepared: 07/11/22 Analyzed: 07/11/22

Diesel Range Organics (C10-C28)	568	25.0	500	ND	114	38-132			
Surrogate: n-Nonane	53.4		50.0		107	50-200			

Matrix Spike Dup (2229008-MSD1)

Source: E207036-09

Prepared: 07/11/22 Analyzed: 07/11/22

Diesel Range Organics (C10-C28)	533	25.0	500	ND	107	38-132	6.19	20	
Surrogate: n-Nonane	53.1		50.0		106	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDX 21-44	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	7/13/2022 5:01:33PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2229017-BLK1)					Prepared: 07/11/22 Analyzed: 07/11/22				
Chloride	ND	20.0							
LCS (2229017-BS1)					Prepared: 07/11/22 Analyzed: 07/11/22				
Chloride	250	20.0	250		99.8	90-110			
Matrix Spike (2229017-MS1)					Source: E207036-01		Prepared: 07/11/22 Analyzed: 07/11/22		
Chloride	507	20.0	250	192	126	80-120			M2
Matrix Spike Dup (2229017-MSD1)					Source: E207036-01		Prepared: 07/11/22 Analyzed: 07/11/22		
Chloride	489	20.0	250	192	119	80-120	3.54	20	

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 may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	RDX 21-44	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	07/13/22 17:01

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: WPX				Bill To				Lab Use Only				TAT				EPA Program					
Project: RDX 21-44				Attention: Jim Raley				Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Joseph Hernandez				Address: 5315 Buena Vista Dr.				E207030		01058-0007					5 Day TAT						
Address: 3122 National Parks HWY				City, State, Zip: Carlsbad, NM, 88220				Analysis and Method										RCRA			
City, State, Zip: Carlsbad, NM, 88220				Phone:				Depth (ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	State				
Phone: 281-702-2329				Email: jim.raley@dvn.com													NM	CO	UT	AZ	TX
Email: jhernandez@ensolum.com																		Remarks			
Report due by:																					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX							
14:00	6.30.22	S	1	SW06	1	0-4'							X			Incident ID: nAPP2115533694					
14:30	6.30.22	S	1	SW07	2	0-4'							X			Cost Center: 1061122001					
10:15	7.6.22	S	1	SW08	3	0-4'							X								
10:00	7.6.22	S	1	SW09	4	0-4'							X								
10:30	7.6.22	S	1	SW10	5	0-4'							X								
10:45	7.6.22	S	1	SW11	6	0-4'							X								
11:00	7.6.22	S	1	SW12	7	0-4'							X								
11:10	7.6.22	S	1	FS12	8	4'							X								
11:20	7.6.22	S	1	FS13	9	4'							X								
11:30	7.6.22	S	1	FS14	10	4'							X								
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.												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.									
Sampled by: Gilbert Moreno																					
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only									
[Signature]		7-7-22		4:15		[Signature]		7-7-22		12:45		Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T1									
[Signature]		7-7-22		4:15		[Signature]		7/8/22		10:15		T2									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T3									
[Signature]						[Signature]						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 laboratory is limited to the amount paid for on the report.																					


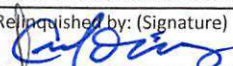
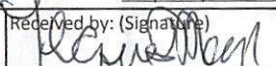
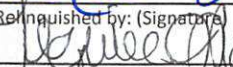
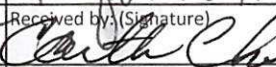


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Project Information

Chain of Custody

Page 2 of 2

Client: WPX				Bill To				Lab Use Only				TAT				EPA Program						
Project: RDX 21-44				Attention: Jim Raley				Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA					
Project Manager: Joseph Hernandez				Address: 5315 Buena Vista Dr.				E207036		01058-0007					5 Day TAT							
Address: 3122 National Parks HWY				City, State, Zip: Carlsbad, NM, 88220				Analysis and Method										RCRA				
City, State, Zip: Carlsbad, NM, 88220				Phone:				Depth (ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	State					
Phone: 281-702-2329				Email: jim.raley@dvn.com													NM	CO	UT	AZ	TX	
Email: jhernandez@ensolum.com																						
Report due by:																						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft)	Field Treated	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks							
11:40	7.6.22	S	1	FS15	11	4'							X		Incident ID: nAPP2115533694							
11:50	7.6.22	S	1	FS16	12	4'							X		Cost Centter:1061122001							
12:00	7.6.22	S	1	FS17	13	4'							X									
12:10	7.6.22	S	1	FS18	14	4'							X									
12:20	7.6.22	S	1	FS19	15	4'							X									
12:30	7.6.22	S	1	FS20	16	4'							X									
																						
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.										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		Lab Use Only										
		7-7-22		4:15				7-7-22		12:49		Received on ice: <input checked="" type="checkbox"/> Y / N										
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T1 _____ T2 _____ T3 _____										
		7-7-22		4:15				7-7-22		10:15		AVG Temp °C <u>4</u>										
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 laboratory is limited to the amount paid for on the report.																						


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Envirotech Analytical Laboratory

Printed: 7/8/2022 2:01:23PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	07/08/22 10:15	Work Order ID:	E207036
Phone:	(539) 573-4018	Date Logged In:	07/08/22 08:34	Logged In By:	Caitlin Christian
Email:	jhernandez@ensolum.com	Due Date:	07/13/22 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: UPSComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



APPENDIX F

Email Correspondence

Erick Herrera

From: Joseph Hernandez
Sent: Monday, January 30, 2023 11:21 AM
To: Erick Herrera
Subject: FW: WPX Site Activity Update for Week of June 6, 2022



Joseph S. Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC



From: Joseph Hernandez
Sent: Thursday, June 2, 2022 3:55 PM
To: ocd.enviro@state.nm.us
Cc: Raley, Jim <Jim.Raley@dmn.com>; Anna Byers <abyers@ensolum.com>; Ben Belill <bbelill@ensolum.com>
Subject: WPX Site Activity Update for Week of June 6, 2022

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following site between June 6 through June 10, 2022:

Site: RDX Federal 21 #044

API: 30-015-41193

Incident Number: nAPP2115533694

Thank you,



Joseph Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC



Erick Herrera

From: Joseph Hernandez
Sent: Monday, January 30, 2023 11:20 AM
To: Erick Herrera
Subject: FW: WPX Site Activity Update for Week of June 20, 2022



Joseph S. Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC



From: Joseph Hernandez
Sent: Friday, June 17, 2022 1:29 PM
To: ocd.enviro@state.nm.us; BLM_NM_CFO_Spill@blm.gov
Cc: Raley, Jim <Jim.Raley@dvn.com>; Devon-Team <Devon-Team@ensolum.com>
Subject: WPX Site Activity Update for Week of June 20, 2022

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between June 20 through June 24, 2022:

Site: RDX Federal 21 #044
API: 30-015-41193
Incident Number: nAPP2115533694

Site: RDX Federal 28 #011
API: 30-015-42109
Incident Number: nAPP2215732821

Site: EP USA #005
API: 30-015-25020
Incident Number: NMAP1826970471



Joseph Hernandez

Senior Geologist

281-702-2329

Ensolum, LLC



From: [Joseph Hernandez](#)
To: ocd.enviro@state.nm.us; "[CFO_Spill, BLM_NM](#)"
Cc: [Raley, Jim](#); [Devon Team](#)
Subject: WPX Site Sampling Activity Update (6/25/22-7/2/22)
Date: Friday, June 24, 2022 9:52:00 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Good morning,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between June 25 through July 2, 2022:

Site: RDX Federal 21 #044
API: 30-015-41193
Incident Number: nAPP2115533694

Site: EP USA #005
API: 30-015-25020
Incident Number: NMAP1826970471



Joseph Hernandez
Senior Geologist
281-702-2329
Ensolum, LLC



Erick Herrera

From: Joseph Hernandez
Sent: Friday, July 1, 2022 3:02 PM
To: ocd.enviro@state.nm.us; 'CFO_Spill, BLM_NM'
Cc: Devon Team; Raley, Jim
Subject: WPX Site Sampling Activity Update (7/5-7/9/22)

Good afternoon,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between July 5 through July 9, 2022:

Site: RDX Federal 21 #044
API: 30-015-41193
Incident Number: nAPP2115533694

Site: RDX Federal 28 #011
API: 30-015-42109
Incident Number: nAPP2215732821

Site: Ross Draw Unit #060
API: 30-015-41979
Incident Number: nAPP2216732906



Joseph Hernandez

Senior Geologist
281-702-2329

Ensolum, LLC



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

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

CONDITIONS

Action 188330

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 188330
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2115533694 RDX FEDERAL 21 #044, thank you. This closure is approved.	6/21/2023