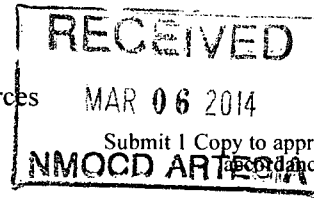


District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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



Form C-141
Revised August 8, 2011

Release Notification and Corrective Action

nHMP1407325518 *246289* **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company	RKI EXPLORATION & PRODUCTION	Contact	HEATHER BREHM
Address	210 PARK AVE, STE 900, OKC, OK 73102	Telephone No.	405-996-5769
Facility Name	ROSS DRAW 12	Facility Type	POW
Surface Owner	Mineral Owner	API No. 30-015-24793	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	33	26S	30E	467'	NORTH	660'	EAST	EDDY

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	OIL/WATER	Volume of Release	15 BBLS	Volume Recovered	0 BBLS
Source of Release	TRANSFER PUMP	Date and Hour of Occurrence	Date and Hour of Discovery		
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	2-25-14 UKN TIME	BLM DISCOVERED 3/5/14 @ 9:00 AM	
By Whom?	M. BALLIET, BLM	Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

WATER TANK RAN OVER, TRANSFER PUMP OVERLOAD

Describe Area Affected and Cleanup Action Taken.*

SPILL WAS CONTAINED IN DIRT CONTAINMENT; DYKE

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

OIL CONSERVATION DIVISION

Signature: <i>Heather Brehm</i>	Approved by Environmental Specialist: <i>[Signature]</i>	
Printed Name: Heather Brehm	Approval Date: <i>3-14-14</i>	Expiration Date: <i>NA</i>
Title: Regulatory Analyst	Conditions of Approval:	
E-mail Address: hbrehm@rkixp.com	Attached <input type="checkbox"/>	
Date: 3/06/2014 Phone: 405-996-5769	Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	

* Attach Additional Sheets If Necessary

4-14-14

2RP 2211

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	nHMP1407325518
District RP	2RP-2211
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: Jim.Raley@dmn.com	Incident # (assigned by OCD): nHMP1407325518
Contact mailing address: 5315 Buena Vista Drive, Carlsbad NM	

Location of Release Source

Latitude 32.004760 Longitude -103.879814
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Ross Draw Unit #012	Site Type: Oil Production Facility
Date Release Discovered: 03/05/2014	API# (if applicable): 30-015-24793

Unit Letter	Section	Township	Range	County
A	33	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 checked="" type="checkbox"/> Crude Oil/ Produced Water	Volume Released (bbls): 15	Volume Recovered (bbls): 0
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	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: A transfer pump overload resulted in a tank overflow to secondary containment.

bbl estimate =

saturated soil volume (ft³)

4.21 (bbl equivalent)

*

estimated porosity (%)


+ recovered fluids (bbl)

Incident ID	nHMP1407325518
District RP	2RP-2211
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Volume exceeded 25bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was submitted via email on 3/6/2014 to Mike Bratcher.	

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>Jim Raley</u>	Title: <u>Environmental Professional</u>
Signature: <u></u>	Date: <u>9/5/2023</u>
email: <u>Jim.Raley@dv.com</u>	Telephone: <u>575-689-7597</u>
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	nHMP1407325518
District RP	2RP-2211
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nHMP1407325518
District RP	2RP-2211
Facility ID	
Application ID	

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

Printed Name: Jim Raley Title: Environmental Professional

Signature:  Date: 9/5/2023

email: Jim.Raley@dm.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Incident ID	nHMP1407325518
District RP	2RP-2211
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 RaleyTitle: Environmental ProfessionalSignature: Date: 9/5/2023email: Jim.Raley@dmv.comTelephone: 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

Ross Draw Unit #012

Eddy County, New Mexico

Incident Numbers

nHMP1407325518

nAPP2315142829

Prepared For:

WPX Energy Permian, LLC

5315 Buena Vista Dr.

Carlsbad, NM 88220

Carlsbad • Midland • San Antonio • Lubbock • Hobbs • Lafayette

SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Report (CRR) detailing corrective actions and subsequent soil sampling events performed for two inadvertent releases of crude oil and produced water at the Ross Draw #012, also referred to as Ross Draw Unit #012 (Site). Based on completed remedial actions and laboratory analytical results from recent soil sampling events, WPX is requesting No Further Action (NFA) at the Site.

SITE LOCATION AND RELEASE BACKGROUND

The Site is located in Unit A, Section 33, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.0047607°, -103.8798141°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM) (**Figure 1 in Appendix A**).

nHMP1407325518

On March 5, 2014, it was discovered that a tank overflow resulted in the release of approximately 15 barrels (bbls) of crude oil and produced water within the secondary containment earthen berm; no fluids were recovered. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on March 6, 2014, and was subsequently assigned Incident Number nHMP1407325518. **Figure 2 in Appendix A** depicts the observed subject release footprint, hereafter referred to as the Area of Concern #1 (AOC #1). It should be noted that the original Form C-141 for Incident Number nHMP1407325518 did not include Global Positioning System (GPS) coordinates for the release but are provided on the updated Final Form C-141.

Between January 15 and February 25, 2020, Etech conducted initial site assessment and delineation activities at the Site to investigate residual soil impacts associated with the AOC #1 and an additional release on the same production pad (Incident Number nAB1702749185). Upon receipt of analytical results, a Closure Request (CR) was prepared and submitted on March 27, 2020, for both incidents. The NMOCD reviewed the CR and denied the request for Incident Number nHMP1407325518 on March 29, 2023, for the following reason:

- “The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.”

Multiple soil borings have been advanced to assist with the depth to groundwater determination of the region since the denial of Incident Number nHMP1407325518 and is described below. Summaries of previous sampling events and laboratory analytical results may be referenced in the CR. However, a more recent spill (Incident Number nAPP2315142829) overlapping AOC #1 has invalidated the laboratory analytical data in the CR, as the data does not provide a current representation of residual soil impacts in same earthen containment impacted by Incident Number nHMP1407325518. WPX requested an extension of the deadline for the two overlapping releases to provide enough time for additional planning, remediation activities and subsequent corrective action report, which was approved by the NMOCD on June 15, 2023.

nAPP2315142829

On May 19, 2023, a tank overflow resulted in the release of approximately 30 bbls of produced water within the secondary containment earthen berm overlapping AOC #1. A vacuum truck was dispatched to

the Site and recovered approximately 20 bbls of free-standing fluids. WPX reported the release to the NMOCD on a Form C-141 on May 31, 2023, and was subsequently assigned Incident Number nAPP2315142829. **Figure 2** in **Appendix A** depicts the observed release footprint, hereafter referred to as the Area of Concern #2 (AOC #2).

SITE CHARACTERIZATION AND CLOSURE CRITERIA

Etech characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to groundwater and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

The nearest permitted water well used in the CR with depth to water data was United States Geological Survey (USGS) well 320125103514701, located approximately 1.6 miles northeast of the Site. USGS well 320125103514701 has a reported depth of water 117 feet below ground surface (bgs) from 1987. Due to the age of the groundwater measurement and the distance of the well from the Site (greater than 25 years old and greater than ½ mile), NMOCD determined the data to be insufficient to assist with the regional groundwater depth estimate at the Site.

Since the submittal of the CR, on December 9, 2020, Talon LPE drilled a soil boring (MW-1), located approximately ½ mile northeast of the Site on the Ross Draw Unit #57 well pad. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 110 feet bgs. No fluids were observed throughout the drilling process nor after a 72-hour observation period. Following the observation period, the boring was plugged and abandoned according to the appropriate regulations. Well records for referenced wells are provided in **Appendix B**.

Based on the desktop review of the current Bureau of Land Management (BLM) Carlsbad Field Office (CFO) karst cave potential map, this Site is located in a medium potential karst area. All other potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details and sources used to determine the site characterization are included in **Figure 1** in **Appendix A**.

Based on the results from the desktop review and estimated regional depth to groundwater at the Site, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria [†]
Chloride	Environmental Protection Agency (EPA) 300.0	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	EPA 8015 M/D	2,500 mg/kg

Gasoline Range Organics (GRO) + Diesel Range Organics (DRO)	EPA 8015 M/D	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

*The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

DELINEATION SOIL SAMPLING ACTIVITIES

On June 19, 2023, Etech conducted delineation activities to characterize residual impacted soil within and around AOC #1 and AOC #2. Two potholes (PH01 and PH02) were advanced within the secondary containment earthen berm impacted by the AOCs, and four potholes (PH03 through PH06) were advanced in every cardinal direction to confirm horizontal delineation of the AOCs. Delineation activities were driven 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 samples were collected from each delineation soil sampling location, representing the highest observed field screening concentrations and the greatest depth. Field screening results and soil descriptions are included on soil sampling logs shown in **Appendix C**. The locations of the delineation soil samples are shown in **Figure 2** in **Appendix A**. Photographic documentation of delineation activities is included in **Appendix D**.

The delineation soil samples were placed directly into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures, to Envirotech Analytical Laboratory (Envirotech) in Farmington, New Mexico, for analysis of COCs.

DELINEATION LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples were below the applicable Site Closure Criteria, except for soil samples collected at 0.5-foot bgs from PH01 and PH02 locations where laboratory analytical results indicated elevated chloride and TPH concentrations. Laboratory analytical results for soil samples collected from PH03 through PH06 locations provided sufficient horizontal delineation for both AOCs. Laboratory analytical results are summarized in **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

EXCAVATION SOIL SAMPLING ACTIVITIES

From July 26, 2023, to July 27, 2023, Etech directed excavation activities via mechanical equipment by referencing PH01 and PH02 laboratory analytical results and by field screening soil for VOCs and chloride as described above. Following the removal of soil, Etech collected 5-point composite floor soil samples (FS01 through FS06) and sidewall samples (SW01 and SW02) at a sampling frequency of 200 square feet from the excavation. The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon, resealable plastic bag. The samples were then handled and analyzed for COCs as previously described.

Upon completion of remediation activities, impacted soil was removed from the Site and transported to a licensed and approved New Mexico landfill under WPX approved manifests. Upon receipt of the final confirmation excavation soil samples results, the excavation was backfilled with clean, locally sourced soil and the Site was restored to “as close to its original state” as possible. Photographic documentation of all Site activities is included in **Appendix D**.

EXCAVATION LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all final confirmation excavation soil samples indicated all analyzed COCs were below the applicable Site Closure Criteria. Laboratory analytical results are summarized in **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

CLOSURE REQUEST

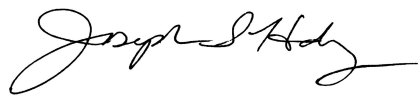
Based on the laboratory analytical results, WPX believes residual impacts associated with the two overlapping, inadvertent releases have been delineated, excavated, and removed from the Site. Concentrations of COCs for all excavation soil samples were below the applicable Site Closure Criteria. Furthermore, the horizontal periphery of impacts has been defined for AOC #1 and AOC #2 via delineation and/or confirmation sampling. WPX believes the completed remedial actions have mitigated impacts at the Site and fulfilled requirements set forth in NMAC 19.15.29.13 guidelines in order to be protective of human health, the environment and ground water. As such, WPX respectfully requests NFA of Incident Numbers nHMP1407325518 and nAPP2315142829.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (281) 702-2329 or joseph@etechenv.com or Gilbert Moreno at (832) 541-7719 or gilbert@etechenv.com. **Appendix G** provides correspondence and email notification receipts associated with the subject releases. Previous remediation activities and soil sample analytical results for the subject release can be referenced in the Original CR in **Appendix H**.

Sincerely,
Etech Environmental and Safety Solutions, Inc.



Gilbert Moreno
Project Geologist



Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

- Appendix A:** Figure 1: Site Map
Figure 2: Delineation Soil Sample Locations
Figure 3: Excavation Soil Sample Locations
- Appendix B:** Referenced Well Records
- Appendix C:** Soil Sampling Logs
- Appendix D:** Photographic Log
- Appendix E:** Tables

Closure Request Report
Incident Numbers nHMP1407325518 & nAPP2315142829
Ross Draw Unit #012

Appendix F: Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix G: NMOCD Notifications

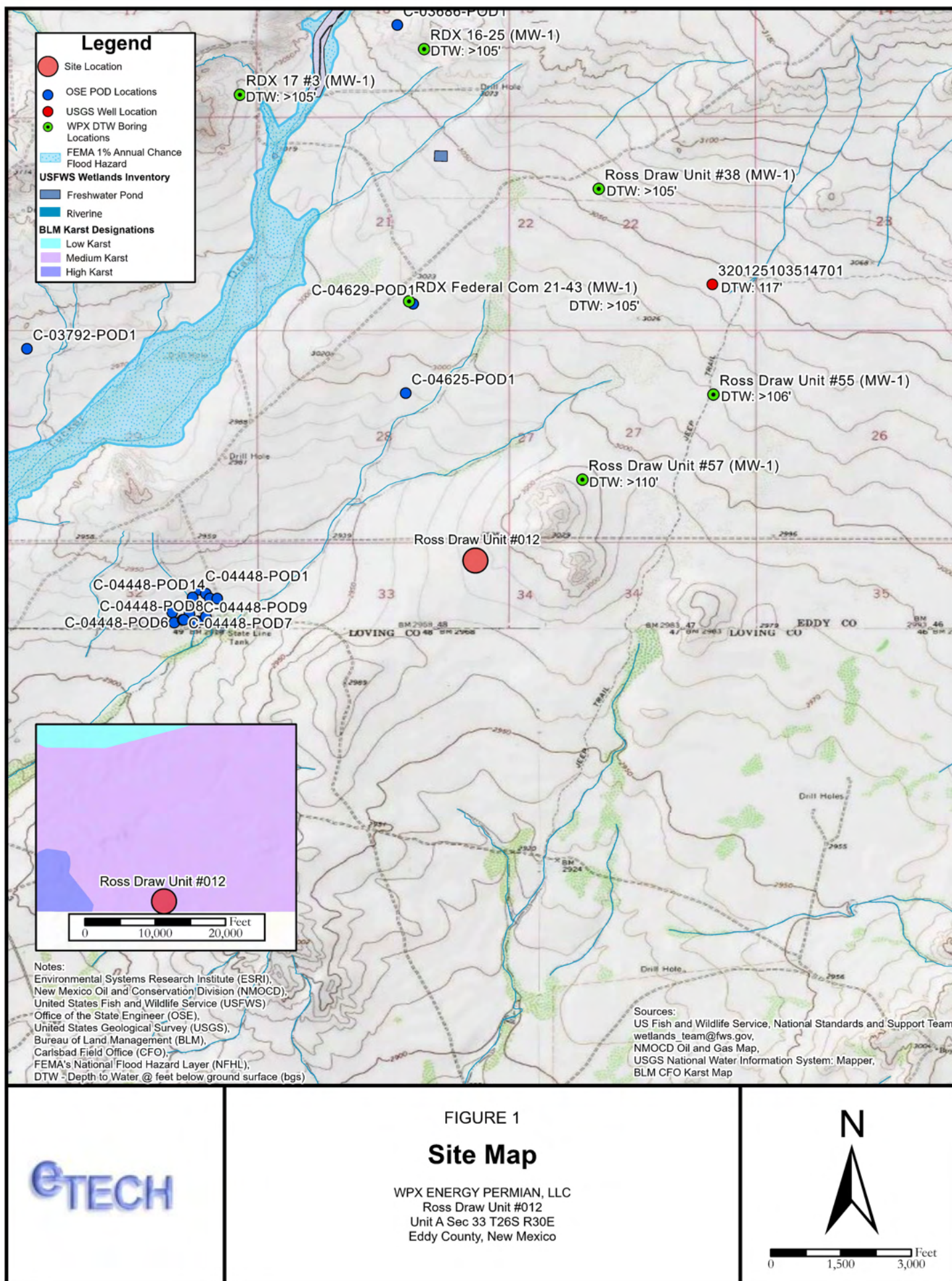
Appendix H: Original Closure Request

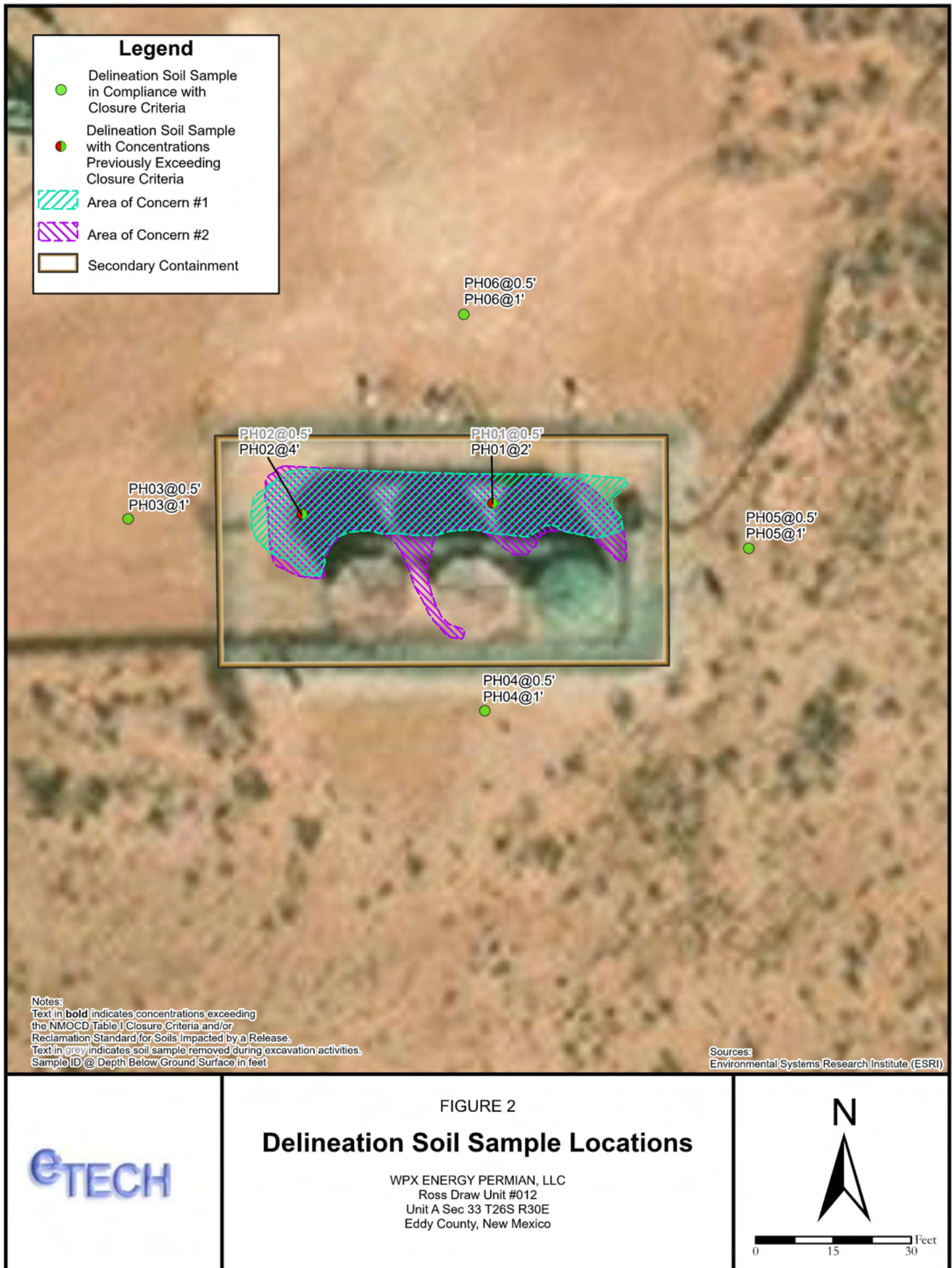
Closure Request Report
Incident Numbers nHMP1407325518 & nAPP2315142829
Ross Draw Unit #012

pg. 5

APPENDIX A

Figures








APPENDIX B

Referenced Well Record

 HRL COMPLIANCE SOLUTIONS							BORING LOG/MONITORING WELL COMPLETION DIAGRAM						
							Boring/Well Number: MW-1			Location: Ross Draw Unit #57			
							Date: 12/9/2020			Client: WPX Energy			
Drilling Method: Air Rotary			Sampling Method: None				Logged By: J. Linn, PG			Drilled By: Talon LPE			
Gravel Pack Type: 10/20 Sand			Gravel Pack Depth Interval: 3 Bags				Seal Type: None		Seal Depth Interval: None		Latitude: 32.01032		
Casing Type: PVC		Diameter: 2-inch		Depth Interval: 0-105 feet bgs			Boring Total Depth (ft. BGS): 110			Longitude: -103.87246			
Screen Type: PVC		Slot: 0.010-inch		Diameter: 2-inch		Depth Interval: 105-110 ft		Well Total Depth (ft. BGS): 110			Depth to Water (ft. BTOC): > 110		
											DTW Date: 12/16/2020		
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks			Well Completion	
0	NM	L/M	D	N	N	NM	SM	NS	Tan/pale orange/pale brown poorly graded fine sand				
5													
10													
15													
20													
25													
30													
35	NM	M	D	N	N	NM	SW	NS	Hard, dry pale pink orange well graded sand with gravel				
40													
45													
50	NM	M	D	N	N	NM	SM	NS	Pale orange red tan silty fine sand				
55													
60	NM	L	D	N	N	NM	SW	NS	Dark brown greyish well graded sand				
65													
70													
75													
80													
85	NM	L/M	D to SL M	N	N	NM	SW	NS	Grey well graded sand				
90													
95													
100													
105	NM	L/M	D	N	N	NM	SM	NS	Tan/pale orange/pale brown poorly graded fine sand - TD 110' bgs				

APPENDIX C

Soil Sampling Logs



Sample Name: PH01

Date: 06/20/2023

Site Name: Ross Draw Unit #012

Incident Number: nHMP1407235518 & nAPP2315142829

Job Number: 18227

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EK

Method: Backhoe

Site Coordinates: 32.0047607,-103.8798141

Hole Diameter: N/A

Total Depth: 2'

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 (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
Dry	2,122	276.5	Yes	PH01	0.5	0	SW-SM	(0-2') SAND, dry, brown, well graded with silt, fine to coarse
Dry	1,944	43.0	No		1	1		@1' no stain.
Dry	372	5.5	No	PH01	2	2		@2' color change to reddish brown, no odor, pad fill.

Total Depth



Sample Name: PH02

Date: 06/20/2023

Site Name: Ross Draw Unit #012

Incident Number: nHMP1407235518 & nAPP2315142829

Job Number: 18227

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EK

Method: Backhoe

Site Coordinates: 32.0047607,-103.8798141

Hole Diameter: N/A

Total Depth: 2'

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 (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
Dry	6,064	57.8	Yes	PH02	0.5	0	SW-SM	(0-4') SAND, dry, brown, well graded with silt, fine to coarse
Dry	372	26.0	No		1	1		@1' no stain.
Dry	<120	181.2	No		2	2		@2' color change to reddish brown, pad fill.
Dry	<120	53.2	No		3	3		@4' no odor.
Dry	<120	18.2	No	PH02	4	4		

Total Depth



Sample Name: PH03

Date: 06/20/2023

Site Name: Ross Draw Unit #012

Incident Number: nHMP1407235518 & nAPP2315142829

Job Number: 18227

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EK

Method: Backhoe

Site Coordinates: 32.0047607,-103.8798141

Hole Diameter: N/A

Total Depth: 2'

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 (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
Dry	<120	0.2	No	PH03	0.5	0	SW-SM	(0-1') SAND, dry, tan, well graded with silt, very fine to fine
Dry	<120	0.4	No	PH03	1	1		

Total Depth



Sample Name: PH04

Date: 06/20/2023

Site Name: Ross Draw Unit #012

Incident Number: nHMP1407235518 & nAPP2315142829

Job Number: 18227

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EK

Method: Backhoe

Site Coordinates: 32.0047607,-103.8798141

Hole Diameter: N/A

Total Depth: 2'

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 (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
Dry	<120	0.0	No	PH04	0.5	0	SW-SM	(0-1') SAND, dry, tan, well graded with silt, very fine to fine
Dry	<120	0.0	No	PH04	1	1		

Total Depth



Sample Name: PH05

Date: 06/20/2023

Site Name: Ross Draw Unit #012

Incident Number: nHMP1407235518 & nAPP2315142829

Job Number: 18227

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EK

Method: Backhoe

Site Coordinates: 32.0047607,-103.8798141

Hole Diameter: N/A

Total Depth: 2'

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 (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
Dry	<120	0.0	No	PH05	0.5	0	SW-SM	(0-1') SAND, dry, tan, well graded with silt, very fine to fine
Dry	<120	0.0	No	PH05	1	1		

Total Depth



Sample Name: PH06

Date: 06/20/2023

Site Name: Ross Draw Unit #012

Incident Number: nHMP1407235518 & nAPP2315142829

Job Number: 18227

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EK

Method: Backhoe

Site Coordinates: 32.0047607,-103.8798141

Hole Diameter: N/A

Total Depth: 2'

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 (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
Dry	<120	0.0	No	PH06	0.5	0	SW-SM	(0-1') SAND, dry, tan, well graded with silt, very fine to fine
Dry	<120	0.0	No	PH06	1	1		

Total Depth

APPENDIX D

Photographic Log

eTECH

PHOTOGRAPHIC LOG

WPX Energy Permian, LLC

Ross Draw Unit #012

nHMP1407325518 & nAPP2315142829



Photograph 1

Date: 06/19/2023

Description: Eastern view of delineation activities near PH02.



Photograph 2

Date: 06/19/2023

Description: Northeastern view of delineation activities near PH03.



Photograph 3

Date: 06/19/2023

Description: Eastern view of delineation activities near PH06.



Photograph 4

Date: 07/27/2023

Description: Southeastern view of completed excavation extent.

eTECH

PHOTOGRAPHIC LOG

WPX Energy Permian, LLC

Ross Draw Unit #012

nHMP1407325518 & nAPP2315142829


Photograph 5
Date: 07/27/2023

Description: Western view of completed excavation extent.


Photograph 6
Date: 07/27/2023

Description: Eastern view of completed excavation extent.


Photograph 7
Date: 08/09/2023

Description: Western view of completed backfill.


Photograph 8
Date: 08/09/2023

Description: Southwestern view of completed backfill.

APPENDIX E

Tables



Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #012
Eddy County, New Mexico

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)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples - Incident Numbers nHMP1407235518 & nAPP2315142829										
PH01	06/20/2023	0.5	<0.0250	0.728	24.5	1,300	542	1,542	1,566.5	6,660
PH01	06/20/2023	2	<0.0250	<0.0250	<20.0	70.6	<50.0	70.6	70.6	<200
PH02	06/20/2023	0.5	<0.0500	<0.0500	<40.0	8,510	4,050	12,560	12,560	6,630
PH02	06/20/2023	4	<0.0250	<0.0250	<20.0	56.4	<50.0	56.4	56.4	<200
PH03	06/20/2023	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
PH03	06/20/2023	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
PH04	06/20/2023	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	116
PH04	06/20/2023	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<100
PH05	06/20/2023	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<100
PH05	06/20/2023	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<100
PH06	06/20/2023	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
PH06	06/20/2023	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
Excavation Soil Samples - Incident Numbers nHMP1407235518 & nAPP2315142829										
FS01	07/28/23	0.5-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
FS02	07/28/23	0.5-2	<0.0250	<0.0250	<20.0	105	69.2	174.2	174.2	212
FS03	07/28/23	0.5-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
FS04	07/28/23	0.5-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
FS05	07/28/23	0.5-2	<0.0250	<0.0250	<20.0	212	146	358	358.0	381
FS06	07/28/23	0.5-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
SW01	07/28/23	0-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200
SW02	07/28/23	0-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<200

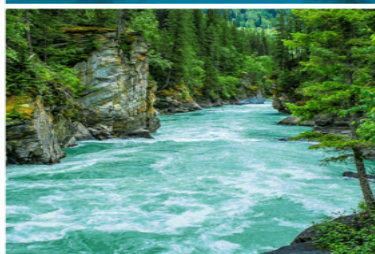
Notes:
 bgs: below ground surface
 mg/kg: milligrams per kilogram
 BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
 GRO: Gasoline Range Organics
 DRO: Diesel Range Organics
 ORO: Oil Range Organics
 TPH: Total Petroleum Hydrocarbon
 NMOCD: New Mexico Oil Conservation Division
 NMAC: New Mexico Administrative Code
 Text in "grey" represents excavated soil samples
 Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release

APPENDIX F

Laboratory Analytical Reports & Chain-of-Custody Documentation

Report to:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDU 12

Work Order: E306160

Job Number: 01058-0007

Received: 6/21/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/21/23

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.

Date Reported: 8/21/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDU 12
Workorder: E306160
Date Received: 6/21/2023 10:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/21/2023 10:00:00AM, under the Project Name: RDU 12.

The analytical test results summarized in this report with the Project Name: RDU 12 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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Sample Summary

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDU 12 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 08/21/23 15:10
--	---	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
PH01 0.5'	E306160-01A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH01 2'	E306160-02A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH02 0.5'	E306160-03A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH02 4'	E306160-04A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH03 0.5'	E306160-05A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH03 1'	E306160-06A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH04 0.5'	E306160-07A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH04 1'	E306160-08A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH05 0.5'	E306160-09A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH05 1'	E306160-10A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH06 0.5'	E306160-11A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.
PH06 1'	E306160-12A	Soil	06/20/23	06/21/23	Glass Jar, 2 oz.



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH01 0.5'

E306160-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/22/23	
Ethylbenzene	0.128	0.0250	1	06/21/23	06/22/23	
Toluene	ND	0.0250	1	06/21/23	06/22/23	
o-Xylene	0.103	0.0250	1	06/21/23	06/22/23	
p,m-Xylene	0.370	0.0500	1	06/21/23	06/22/23	
Total Xylenes	0.472	0.0250	1	06/21/23	06/22/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.7 %	70-130		06/21/23	06/22/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	24.5	20.0	1	06/21/23	06/22/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.6 %	70-130		06/21/23	06/22/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	1300	50.0	2	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	542	100	2	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	88.5 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	6660	400	20	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH01 2'

E306160-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/22/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/22/23	
Toluene	ND	0.0250	1	06/21/23	06/22/23	
o-Xylene	ND	0.0250	1	06/21/23	06/22/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/22/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/22/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	97.3 %	70-130		06/21/23	06/22/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/22/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.8 %	70-130		06/21/23	06/22/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	70.6	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	76.7 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	200	10	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH02 0.5'

E306160-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0500	2	06/21/23	06/23/23	
Ethylbenzene	ND	0.0500	2	06/21/23	06/23/23	
Toluene	ND	0.0500	2	06/21/23	06/23/23	
o-Xylene	ND	0.0500	2	06/21/23	06/23/23	
p,m-Xylene	ND	0.100	2	06/21/23	06/23/23	
Total Xylenes	ND	0.0500	2	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.5 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	40.0	2	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.8 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	8510	500	20	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	4050	1000	20	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	114 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	6630	400	20	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH02 4'

E306160-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.1 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.4 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	56.4	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	79.5 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	200	10	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH03 0.5'

E306160-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.5 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.9 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	81.8 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	200	10	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH03 1'

E306160-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.6 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.3 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	78.3 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	200	10	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH04 0.5'

E306160-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.2 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.0 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	81.3 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	116	100	5	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH04 1'

E306160-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.7 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.6 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	92.0 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	100	5	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH05 0.5'

E306160-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.7 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.4 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	89.9 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	100	5	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH05 1'

E306160-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.7 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.2 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	92.1 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	100	5	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH06 0.5'

E306160-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.1 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.5 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	92.3 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	200	10	06/21/23	06/23/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:10:36PM

PH06 1'

E306160-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Benzene	ND	0.0250	1	06/21/23	06/23/23	
Ethylbenzene	ND	0.0250	1	06/21/23	06/23/23	
Toluene	ND	0.0250	1	06/21/23	06/23/23	
o-Xylene	ND	0.0250	1	06/21/23	06/23/23	
p,m-Xylene	ND	0.0500	1	06/21/23	06/23/23	
Total Xylenes	ND	0.0250	1	06/21/23	06/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.1 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2325049
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/21/23	06/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	85.9 %	70-130		06/21/23	06/23/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2325064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/22/23	06/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	06/22/23	06/24/23	
<i>Surrogate: n-Nonane</i>						
	82.6 %	50-200		06/22/23	06/24/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2325052
Chloride	ND	200	10	06/21/23	06/23/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:10:36PM

Volatile Organics by EPA 8021B

Analyst: SL

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 (2325049-BLK1)

Prepared: 06/21/23 Analyzed: 06/22/23

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	7.61		8.00		95.1	70-130			

LCS (2325049-BS1)

Prepared: 06/21/23 Analyzed: 06/22/23

Benzene	5.12	0.0250	5.00		102	70-130			
Ethylbenzene	5.01	0.0250	5.00		100	70-130			
Toluene	5.08	0.0250	5.00		102	70-130			
o-Xylene	5.02	0.0250	5.00		100	70-130			
p,m-Xylene	10.2	0.0500	10.0		102	70-130			
Total Xylenes	15.2	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.65		8.00		95.6	70-130			

Matrix Spike (2325049-MS1)

Source: E306159-07

Prepared: 06/21/23 Analyzed: 06/22/23

Benzene	4.99	0.0250	5.00	ND	99.8	54-133			
Ethylbenzene	4.89	0.0250	5.00	ND	97.8	61-133			
Toluene	4.96	0.0250	5.00	ND	99.1	61-130			
o-Xylene	4.89	0.0250	5.00	ND	97.8	63-131			
p,m-Xylene	9.96	0.0500	10.0	ND	99.6	63-131			
Total Xylenes	14.9	0.0250	15.0	ND	99.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.59		8.00		94.9	70-130			

Matrix Spike Dup (2325049-MSD1)

Source: E306159-07

Prepared: 06/21/23 Analyzed: 06/22/23

Benzene	5.22	0.0250	5.00	ND	104	54-133	4.56	20	
Ethylbenzene	5.14	0.0250	5.00	ND	103	61-133	4.99	20	
Toluene	5.20	0.0250	5.00	ND	104	61-130	4.72	20	
o-Xylene	5.13	0.0250	5.00	ND	103	63-131	4.76	20	
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131	4.78	20	
Total Xylenes	15.6	0.0250	15.0	ND	104	63-131	4.77	20	
Surrogate: 4-Bromochlorobenzene-PID	7.64		8.00		95.5	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:10:36PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

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 (2325049-BLK1)

Prepared: 06/21/23 Analyzed: 06/22/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.27		8.00		90.9	70-130			

LCS (2325049-BS2)

Prepared: 06/21/23 Analyzed: 06/22/23

Gasoline Range Organics (C6-C10)	46.3	20.0	50.0		92.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.2	70-130			

Matrix Spike (2325049-MS2)

Source: E306159-07

Prepared: 06/21/23 Analyzed: 06/22/23

Gasoline Range Organics (C6-C10)	46.7	20.0	50.0	ND	93.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.17		8.00		89.7	70-130			

Matrix Spike Dup (2325049-MSD2)

Source: E306159-07

Prepared: 06/21/23 Analyzed: 06/22/23

Gasoline Range Organics (C6-C10)	47.1	20.0	50.0	ND	94.2	70-130	0.786	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		91.9	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:10:36PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2325064-BLK1)					Prepared: 06/22/23 Analyzed: 06/23/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.7		50.0		97.4	50-200			

LCS (2325064-BS1)					Prepared: 06/22/23 Analyzed: 06/23/23				
Diesel Range Organics (C10-C28)	270	25.0	250		108	38-132			
Surrogate: n-Nonane	34.5		50.0		68.9	50-200			

Matrix Spike (2325064-MS1)					Source: E306160-04		Prepared: 06/22/23 Analyzed: 06/23/23		
Diesel Range Organics (C10-C28)	342	25.0	250	56.4	114	38-132			
Surrogate: n-Nonane	31.1		50.0		62.2	50-200			

Matrix Spike Dup (2325064-MSD1)					Source: E306160-04		Prepared: 06/22/23 Analyzed: 06/23/23		
Diesel Range Organics (C10-C28)	367	25.0	250	56.4	124	38-132	7.07	20	
Surrogate: n-Nonane	30.7		50.0		61.4	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:10:36PM

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 (2325052-BLK1)					Prepared: 06/21/23 Analyzed: 06/23/23				
Chloride	ND	20.0							
LCS (2325052-BS1)					Prepared: 06/21/23 Analyzed: 06/23/23				
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2325052-MS1)					Source: E306159-01		Prepared: 06/21/23 Analyzed: 06/23/23		
Chloride	264	20.0	250	ND	106	80-120			
Matrix Spike Dup (2325052-MSD1)					Source: E306159-01		Prepared: 06/21/23 Analyzed: 06/23/23		
Chloride	264	20.0	250	ND	106	80-120	0.0462	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:	RDU 12	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	08/21/23 15:10

- 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.

Project Information

Chain of Custody

Client: WPX Energy Permian LLC.				Bill To		Lab Use Only				TAT				EPA Program				
Project: RDU 12				Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Gilbert Moreno				Address: 5315 Buena Vista Dr.		E300160		01058-0007					5 day TAT					
Address: 13000 W County Rd 100				City, State, Zip: Carlsbad, NM, 88220		Analysis and Method									RCRA			
City, State, Zip: Odessa, TX, 79765				Phone: 575-885-7502		Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State				
Phone: 832-541-7719				Email: jim.raley@dvn.com										NM	CO	UT	AZ	TX
Email: Devon-team@etechenv.com				WBS/WO: TBD 21169911														
Collected by: Edyte Konan				Incident ID: AB1702749185 2315142829										Remarks				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number													
10:00	6/20/2023	S	1	PH01	1	0.5'						X						
10:10	6/20/2023	S	1	PH01	2	2'						X						
10:20	6/20/2023	S	1	PH02	3	0.5'						X						
10:30	6/20/2023	S	1	PH02	4	4'						X						
10:40	6/20/2023	S	1	PH03	5	0.5'						X						
10:50	6/20/2023	S	1	PH03	6	1'						X						
11:00	6/20/2023	S	1	PH04	7	0.5'						X						
11:10	6/20/2023	S	1	PH04	8	1'						X						
11:20	6/20/2023	S	1	PH05	9	0.5'						X						
11:30	6/20/2023	S	1	PH05	10	1'						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										
<i>Edyte Konan</i>		6.20.23	1515	<i>Michelle Camps</i>		6-20-23	1515	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										
<i>Michelle Camps</i>		6-20-23	1700	<i>Andrew Muro</i>		6-20-23	1700											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C										
<i>Andrew Muro</i>		6-20-23	2230	<i>Michelle Camps</i>		6/21/23	1000	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.																		



Client: WPX Energy Permian LLC.				Bill To		Lab Use Only				TAT				EPA Program				
Project: RDU 12				Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Gilbert Moreno				Address: 5315 Buena Vista Dr.		E 3060/600		01058-0007					5 day TAT					
Address: 13000 W County Rd 100				City, State, Zip: Carlsbad, NM, 88220		Analysis and Method									RCRA			
City, State, Zip: Odessa, TX, 79765				Phone: 575-885-7502		Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State				
Phone: 832-541-7719				Email: jim.raley@dyn.com										NM	CO	UT	AZ	TX
Email: Devon-team@etechenv.com				WBS/WO: TBB Gal 21169911														
Collected by: Edyte Konan				Incident ID: nAB1702749185 Gal														
nAPP 2315142829				Lab Number		Remarks												
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX					
11:40	6/20/2023	S	1	PH06	11	0.5'						X						
11:50	6/20/2023	S	1	PH06	12	1'						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: EK

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: Y N T1 T2 T3 AVG Temp °C 4
Calvin	6-20-23	1515	Michelle Cuy	6-20-23	1515	
Michelle Cuy	6-20-23	1700	Andrew Musso	6-20-23	1700	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Andrew Musso	6-20-23	2230	Calvin	6-21-23	1000	

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



envirotech

Envirotech Analytical Laboratory

Printed: 6/21/2023 12:09:10PM

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:	06/21/23 10:00	Work Order ID:	E306160
Phone:	(539) 573-4018	Date Logged In:	06/21/23 11:52	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	06/27/23 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? Yes

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

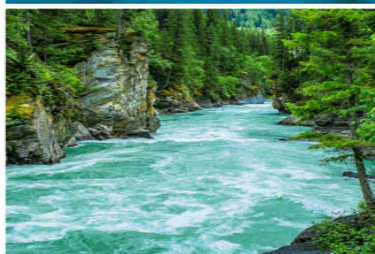


envirotech Inc.

envirotech

Report to:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDU 12

Work Order: E307176

Job Number: 01058-0007

Received: 7/31/2023

Revision: 3

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/22/23

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.

Date Reported: 8/22/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDU 12
Workorder: E307176
Date Received: 7/31/2023 7:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/31/2023 7:15:00AM, under the Project Name: RDU 12.

The analytical test results summarized in this report with the Project Name: RDU 12 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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Sample Summary

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	08/22/23 13:56

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 0.5-2'	E307176-01A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.
FS02 0.5-2'	E307176-02A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.
FS03 0.5-2'	E307176-03A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.
FS04 0.5-2'	E307176-04A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.
FS05 0.5-2'	E307176-05A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.
FS06 0.5-2'	E307176-06A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/22/2023 1:56:44PM

FS01 0.5-2'

E307176-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
Surrogate: 4-Bromochlorobenzene-PID	96.4 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.8 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2331016
Diesel Range Organics (C10-C28)	ND	25.0	1	07/31/23	08/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	07/31/23	08/02/23	
Surrogate: n-Nonane	94.8 %	50-200		07/31/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2331010
Chloride	ND	200	10	07/31/23	08/02/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/22/2023 1:56:44PM

FS02 0.5-2'

E307176-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.6 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.6 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2331016	
Diesel Range Organics (C10-C28)	105	25.0	1	07/31/23	08/02/23	
Oil Range Organics (C28-C36)	69.2	50.0	1	07/31/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	95.8 %	50-200		07/31/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2331010	
Chloride	212	200	10	07/31/23	08/02/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/22/2023 1:56:44PM

FS03 0.5-2'

E307176-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.5 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2331016
Diesel Range Organics (C10-C28)	ND	25.0	1	07/31/23	08/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	07/31/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	98.3 %	50-200		07/31/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2331010
Chloride	ND	200	10	07/31/23	08/02/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/22/2023 1:56:44PM

FS04 0.5-2'

E307176-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.4 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.4 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2331016	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/31/23	08/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	07/31/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	94.8 %	50-200		07/31/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2331010	
Chloride	ND	200	10	07/31/23	08/02/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/22/2023 1:56:44PM

FS05 0.5-2'

E307176-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.5 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.7 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2331016
Diesel Range Organics (C10-C28)	212	25.0	1	07/31/23	08/02/23	
Oil Range Organics (C28-C36)	146	50.0	1	07/31/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	98.6 %	50-200		07/31/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2331010
Chloride	381	200	10	07/31/23	08/02/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/22/2023 1:56:44PM

FS06 0.5-2'

E307176-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.2 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2331002
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.7 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2331016
Diesel Range Organics (C10-C28)	ND	25.0	1	07/31/23	08/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	07/31/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	96.7 %	50-200		07/31/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2331010
Chloride	ND	200	10	07/31/23	08/03/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/22/2023 1:56:44PM

Volatile Organics by EPA 8021B

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 (2331002-BLK1)

Prepared: 07/31/23 Analyzed: 07/31/23

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	7.73		8.00		96.6	70-130			

LCS (2331002-BS1)

Prepared: 07/31/23 Analyzed: 07/31/23

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	5.16	0.0250	5.00		103	70-130			
Toluene	5.23	0.0250	5.00		105	70-130			
o-Xylene	5.17	0.0250	5.00		103	70-130			
p,m-Xylene	10.5	0.0500	10.0		105	70-130			
Total Xylenes	15.7	0.0250	15.0		105	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.87		8.00		98.4	70-130			

Matrix Spike (2331002-MS1)

Source: E307174-02

Prepared: 07/31/23 Analyzed: 07/31/23

Benzene	5.03	0.0250	5.00	ND	101	54-133			
Ethylbenzene	4.99	0.0250	5.00	ND	99.7	61-133			
Toluene	5.06	0.0250	5.00	ND	101	61-130			
o-Xylene	4.99	0.0250	5.00	ND	99.8	63-131			
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131			
Total Xylenes	15.1	0.0250	15.0	ND	101	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.79		8.00		97.4	70-130			

Matrix Spike Dup (2331002-MSD1)

Source: E307174-02

Prepared: 07/31/23 Analyzed: 07/31/23

Benzene	4.94	0.0250	5.00	ND	98.7	54-133	1.82	20	
Ethylbenzene	4.91	0.0250	5.00	ND	98.2	61-133	1.54	20	
Toluene	4.98	0.0250	5.00	ND	99.5	61-130	1.55	20	
o-Xylene	4.93	0.0250	5.00	ND	98.5	63-131	1.32	20	
p,m-Xylene	10.0	0.0500	10.0	ND	100	63-131	1.31	20	
Total Xylenes	14.9	0.0250	15.0	ND	99.7	63-131	1.32	20	
Surrogate: 4-Bromochlorobenzene-PID	7.89		8.00		98.6	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/22/2023 1:56:44PM

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 (2331002-BLK1) Prepared: 07/31/23 Analyzed: 07/31/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.48		8.00		93.5	70-130			

LCS (2331002-BS2) Prepared: 07/31/23 Analyzed: 08/01/23

Gasoline Range Organics (C6-C10)	52.8	20.0	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.17		8.00		89.6	70-130			

Matrix Spike (2331002-MS2) Source: E307174-02 Prepared: 07/31/23 Analyzed: 07/31/23

Gasoline Range Organics (C6-C10)	54.7	20.0	50.0	ND	109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.44		8.00		93.0	70-130			

Matrix Spike Dup (2331002-MSD2) Source: E307174-02 Prepared: 07/31/23 Analyzed: 07/31/23

Gasoline Range Organics (C6-C10)	55.1	20.0	50.0	ND	110	70-130	0.677	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		8.00		94.7	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/22/2023 1:56:44PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2331016-BLK1)

Prepared: 07/31/23 Analyzed: 08/02/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.8		50.0		102	50-200			

LCS (2331016-BS1)

Prepared: 07/31/23 Analyzed: 08/02/23

Diesel Range Organics (C10-C28)	280	25.0	250		112	38-132			
Surrogate: n-Nonane	51.7		50.0		103	50-200			

Matrix Spike (2331016-MS1)

Source: E307182-03

Prepared: 07/31/23 Analyzed: 08/02/23

Diesel Range Organics (C10-C28)	290	25.0	250	ND	116	38-132			
Surrogate: n-Nonane	47.1		50.0		94.3	50-200			

Matrix Spike Dup (2331016-MSD1)

Source: E307182-03

Prepared: 07/31/23 Analyzed: 08/02/23

Diesel Range Organics (C10-C28)	278	25.0	250	ND	111	38-132	4.15	20	
Surrogate: n-Nonane	44.3		50.0		88.7	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/22/2023 1:56:44PM

Anions by EPA 300.0/9056A

Analyst: BA

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

Blank (2331010-BLK1)					Prepared: 07/31/23 Analyzed: 07/31/23				
Chloride	ND	20.0							
LCS (2331010-BS1)					Prepared: 07/31/23 Analyzed: 07/31/23				
Chloride	261	20.0	250		104	90-110			
Matrix Spike (2331010-MS1)					Source: E307166-01		Prepared: 07/31/23 Analyzed: 07/31/23		
Chloride	333	200	250	ND	133	80-120			M5
Matrix Spike Dup (2331010-MSD1)					Source: E307166-01		Prepared: 07/31/23 Analyzed: 07/31/23		
Chloride	292	200	250	ND	117	80-120	12.9	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:	RDU 12	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	08/22/23 13:56

- M5 The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated 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.

Project Information

Chain of Custody

Client: WPX Energy Permian LLC.		Bill To		Lab Use Only		TAT			EPA Program		
Project: RDU 12		Attention: Jim Raley		Lab WO#		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Gilbert Moreno		Address: 5315 Buena Vista Dr.		E 301176		Job Number		5 day TAT			
Address: 13000 W County Rd 100		City, State, Zip: Carlsbad, NM, 88220									RCRA
City, State, Zip: Odessa, TX, 79765		Phone: 575-885-7502									
Phone: (832) 541-7719		Email: jim.raley@dmv.com									
Email: Devon-team@etechnv.com		WO: 21169911									
Collected by: Edyte Konan		Incident ID: nAPP2315142829									

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	NM	GDOC	TX	State	Remarks
13:00	7/28/2023	S	1	FS01	1	0.5-2						X					
13:10	7/28/2023	S	1	FS02	2	0.5-2						X					
13:20	7/28/2023	S	1	FS03	3	0.5-2						X					
13:30	7/28/2023	S	1	FS04	4	0.5-2						X					
13:40	7/28/2023	S	1	FS05	5	0.5-2						X					
13:50	7/28/2023	S	1	FS06	6	0.5-2						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:

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="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
<i>[Signature]</i>	07/28/2023	10:00	<i>Michelle Gonzalez</i>	7-28-23	1000	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>Michelle Gonzalez</i>	7-28-23	1700	<i>Andrew M550</i>	7-28-23	1730	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>Andrew M550</i>	7-29-23	2400	<i>Carla Man</i>	7/31/23	7:15	

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: 7/31/2023 8:57:41AM

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:	07/31/23 07:15	Work Order ID:	E307176
Phone:	(539) 573-4018	Date Logged In:	07/28/23 15:48	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	08/04/23 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? Yes

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.

Project Information

Chain of Custody

Page 1 of 1

Incident ID: nAPP2315142829 & nHMP1407325518 *per G. Moreno*

Client: WPX Energy Permian LLC.		Bill To		Lab Use Only		TAT		EPA Program	
Project: RDU 12		Attention: Jim Raley		Lab WO#		1D 2D 3D		CWA SDWA	
Project Manager: Gilbert Moreno		Address: 5315 Buena Vista Dr.		Job Number		Standard		5 day TAT	
Address: 13000 W County Rd 100		City, State, Zip: Carlsbad, NM, 88220		E 307176 01058-0007				RCRA	
City, State, Zip: Odessa, TX, 79765		Phone: 575-885-7502		Analysis and Method				State	
Phone: (832) 541-7719		Email: jim.raley@dvn.com						NM CO UT AZ TX	
Email: Devon-team@etechnv.com		WO: 21169911							
Collected by: Edyte Konan		Incident ID: nAPP2315142829							

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
13:00	7/28/2023	S	1	FS01	1	0.5-2'						X		
13:10	7/28/2023	S	1	FS02	2	0.5-2'						X		
13:20	7/28/2023	S	1	FS03	3	0.5-2'						X		
13:30	7/28/2023	S	1	FS04	4	0.5-2'						X		
13:40	7/28/2023	S	1	FS05	5	0.5-2'						X		
13:50	7/28/2023	S	1	FS06	6	0.5-2'						X		

Additional Instructions:

Add tick mark in report to represent each sample depth as follows: (FS01 through FS06 @ 0.5-2') *Per G. Moreno*

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling 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
<i>[Signature]</i>	07/28/2023	10:00	<i>Michelle Cuyala</i>	7-28-23	1000	Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3
<i>Michelle Cuyala</i>	7-28-23	1700	<i>Adrian M. Soto</i>	7-28-23	1730	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C
<i>Adrian M. Soto</i>	7-29-23	2400	<i>Carla Man</i>	7/31/23	7:15	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

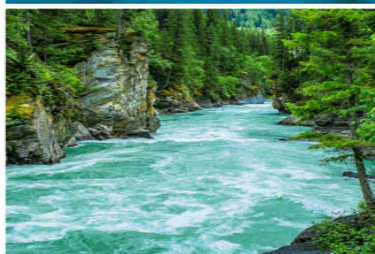
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this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



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Report to:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: RDU 12

Work Order: E307177

Job Number: 01058-0007

Received: 7/31/2023

Revision: 3

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/21/23

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.

Date Reported: 8/21/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: RDU 12
Workorder: E307177
Date Received: 7/31/2023 7:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/31/2023 7:15:00AM, under the Project Name: RDU 12.

The analytical test results summarized in this report with the Project Name: RDU 12 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
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
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Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area
Lynn Jarboe
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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	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	08/21/23 15:16

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 0-2'	E307177-01A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.
SW02 0-2'	E307177-02A	Soil	07/28/23	07/31/23	Glass Jar, 2 oz.



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:16:45PM

SW01 0-2'

E307177-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.3 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2331014	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/01/23	08/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/01/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	104 %	50-200		08/01/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2331011	
Chloride	ND	200	10	07/31/23	07/31/23	



Sample Data

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

Project Name: RDU 12
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
8/21/2023 3:16:45PM

SW02 0-2'

E307177-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Benzene	ND	0.0250	1	07/31/23	08/01/23	
Ethylbenzene	ND	0.0250	1	07/31/23	08/01/23	
Toluene	ND	0.0250	1	07/31/23	08/01/23	
o-Xylene	ND	0.0250	1	07/31/23	08/01/23	
p,m-Xylene	ND	0.0500	1	07/31/23	08/01/23	
Total Xylenes	ND	0.0250	1	07/31/23	08/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.3 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2331002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/31/23	08/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.3 %	70-130		07/31/23	08/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2331014	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/01/23	08/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/01/23	08/02/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		08/01/23	08/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2331011	
Chloride	ND	200	10	07/31/23	07/31/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:16:45PM

Volatile Organics by EPA 8021B

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 (2331002-BLK1)

Prepared: 07/31/23 Analyzed: 07/31/23

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	7.73		8.00		96.6	70-130			

LCS (2331002-BS1)

Prepared: 07/31/23 Analyzed: 07/31/23

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	5.16	0.0250	5.00		103	70-130			
Toluene	5.23	0.0250	5.00		105	70-130			
o-Xylene	5.17	0.0250	5.00		103	70-130			
p,m-Xylene	10.5	0.0500	10.0		105	70-130			
Total Xylenes	15.7	0.0250	15.0		105	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.87		8.00		98.4	70-130			

Matrix Spike (2331002-MS1)

Source: E307174-02

Prepared: 07/31/23 Analyzed: 07/31/23

Benzene	5.03	0.0250	5.00	ND	101	54-133			
Ethylbenzene	4.99	0.0250	5.00	ND	99.7	61-133			
Toluene	5.06	0.0250	5.00	ND	101	61-130			
o-Xylene	4.99	0.0250	5.00	ND	99.8	63-131			
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131			
Total Xylenes	15.1	0.0250	15.0	ND	101	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.79		8.00		97.4	70-130			

Matrix Spike Dup (2331002-MSD1)

Source: E307174-02

Prepared: 07/31/23 Analyzed: 07/31/23

Benzene	4.94	0.0250	5.00	ND	98.7	54-133	1.82	20	
Ethylbenzene	4.91	0.0250	5.00	ND	98.2	61-133	1.54	20	
Toluene	4.98	0.0250	5.00	ND	99.5	61-130	1.55	20	
o-Xylene	4.93	0.0250	5.00	ND	98.5	63-131	1.32	20	
p,m-Xylene	10.0	0.0500	10.0	ND	100	63-131	1.31	20	
Total Xylenes	14.9	0.0250	15.0	ND	99.7	63-131	1.32	20	
Surrogate: 4-Bromochlorobenzene-PID	7.89		8.00		98.6	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:16:45PM

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 (2331002-BLK1)

Prepared: 07/31/23 Analyzed: 07/31/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.48		8.00		93.5	70-130			

LCS (2331002-BS2)

Prepared: 07/31/23 Analyzed: 08/01/23

Gasoline Range Organics (C6-C10)	52.8	20.0	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.17		8.00		89.6	70-130			

Matrix Spike (2331002-MS2)

Source: E307174-02

Prepared: 07/31/23 Analyzed: 07/31/23

Gasoline Range Organics (C6-C10)	54.7	20.0	50.0	ND	109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.44		8.00		93.0	70-130			

Matrix Spike Dup (2331002-MSD2)

Source: E307174-02

Prepared: 07/31/23 Analyzed: 07/31/23

Gasoline Range Organics (C6-C10)	55.1	20.0	50.0	ND	110	70-130	0.677	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		8.00		94.7	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:16:45PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2331014-BLK1)					Prepared: 08/01/23 Analyzed: 08/01/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.5		50.0		117	50-200			

LCS (2331014-BS1)					Prepared: 08/01/23 Analyzed: 08/01/23				
Diesel Range Organics (C10-C28)	260	25.0	250		104	38-132			
Surrogate: n-Nonane	51.0		50.0		102	50-200			

Matrix Spike (2331014-MS1)					Source: E307166-01		Prepared: 08/01/23 Analyzed: 08/01/23		
Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	48.2		50.0		96.5	50-200			

Matrix Spike Dup (2331014-MSD1)					Source: E307166-01		Prepared: 08/01/23 Analyzed: 08/01/23		
Diesel Range Organics (C10-C28)	254	25.0	250	ND	101	38-132	2.66	20	
Surrogate: n-Nonane	49.9		50.0		99.8	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	RDU 12	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	8/21/2023 3:16:45PM

Anions by EPA 300.0/9056A

Analyst: BA

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

Blank (2331011-BLK1)					Prepared: 07/31/23 Analyzed: 07/31/23				
Chloride	ND	20.0							
LCS (2331011-BS1)					Prepared: 07/31/23 Analyzed: 07/31/23				
Chloride	264	20.0	250		105	90-110			
Matrix Spike (2331011-MS1)					Source: E307177-01		Prepared: 07/31/23 Analyzed: 07/31/23		
Chloride	358	200	250	ND	143	80-120			M5
Matrix Spike Dup (2331011-MSD1)					Source: E307177-01		Prepared: 07/31/23 Analyzed: 07/31/23		
Chloride	282	200	250	ND	113	80-120	23.7	20	R2

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:	RDU 12	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	08/21/23 15:16

- M5 The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
- R2 The RPD exceeded the acceptance limit.
- 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 Energy Permian LLC.				Bill To Attention: Jim Raley Address: 5315 Buena Vista Dr. City, State, Zip: Carlsbad, NM, 88220 Phone: 575-885-7502 Email: jim.raley@dmv.com WO: 21169911 Incident ID: nAPP2315142829				Lab Use Only				TAT				EPA Program																			
Project: RDU 12								Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA																		
Project Manager: Gilbert Moreno								E307177		01058-0007					5 day TAT																				
Address: 13000 W County Rd 100								Analysis and Method										RCRA																	
City, State, Zip: Odessa, TX, 79765								Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State																			
Phone: (832) 541-7719																NM	CO	UT	AZ	TX															
Email: Devon-team@etechnv.com																Remarks																			
Collected by: Edyte Konan				Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																										
14:00	7/28/2023	S	1	SW01	1	0-2'							X																						
14:10	7/28/2023	S	1	SW02	2	0-2'							X																						
<div>Additional Instructions:</div> <p>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.</p> <div><div>Relinquished by: (Signature) <i>[Signature]</i></div><div>Date 07/28/2023</div><div>Time 10:00</div><div>Received by: (Signature) <i>Michelle Gonzalez</i></div><div>Date 7-28-23</div><div>Time 1000</div></div> <div><div>Relinquished by: (Signature) <i>Michelle Gonzalez</i></div><div>Date 7-28-23</div><div>Time 1700</div><div>Received by: (Signature) <i>Alton</i></div><div>Date 7-28-23</div><div>Time 1730</div></div> <div><div>Relinquished by: (Signature) <i>Alton</i></div><div>Date 7-29-23</div><div>Time 2400</div><div>Received by: (Signature) <i>Carla Man</i></div><div>Date 7/31/23</div><div>Time 7:15</div></div> <div>Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other</div> <div>Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA</div>																		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.																	
																		Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N																	
																		T1										T2				T3			
																		AVG Temp °C										4							
																		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: 7/31/2023 9:01:02AM

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:	07/31/23 07:15	Work Order ID:	E307177
Phone:	(539) 573-4018	Date Logged In:	07/28/23 15:52	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	08/04/23 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? Yes

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.

Project Information

Chain of Custody

Page 1 of 1

Client: WPX Energy Permian LLC.
 Project: RDU 12
 Project Manager: Gilbert Moreno
 Address: 13000 W County Rd 100
 City, State, Zip: Odessa, TX, 79765
 Phone: (832) 541-7719
 Email: Devon-team@etechnv.com
 Collected by: Edyte Konan

Incident ID: nAPP2315142829 & nHMP1407325518

Bill To
 Attention: Jim Raley
 Address: 5315 Buena Vista Dr.
 City, State, Zip: Carlsbad, NM, 88220
 Phone: 575-885-7502
 Email: jim.raley@dvn.com
 WO: 21169911
 Incident ID: nAPP2315142829

Lab Use Only
 Lab WO# E301177
 Job Number 01058-0007

TAT
 1D 2D 3D Standard 5 day TAT

EPA Program
 CWA SDWA RCRA

Analysis and Method
 Depth (ft.)
 TPH GRO/DRO/ORO by 8015
 BTEX by 8021
 VOC by 8260
 Metals 6010
 Chloride 300.0
 BGDOC NM
 GDOC TX

State
 NM CO UT AZ TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
14:00	7/28/2023	S	1	SW01	1	0-2'						X		
14:10	7/28/2023	S	1	SW02	2	0-2'						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:

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) <i>[Signature]</i>	Date 07/28/2023	Time 10:00	Received by: (Signature) <i>Michelle Gargale</i>	Date 7-28-23	Time 1000	Lab Use Only Received on ice: <input checked="" type="checkbox"/> N
Relinquished by: (Signature) <i>Michelle Gargale</i>	Date 7-28-23	Time 1700	Received by: (Signature) <i>Adrian</i>	Date 7-28-23	Time 1730	T1 T2 T3
Relinquished by: (Signature) <i>Adrian</i>	Date 7-29-23	Time 2400	Received by: (Signature) <i>Carla Man</i>	Date 7/31/23	Time 7:15	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

APPENDIX G

NMOCD Notifications

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Thursday, June 15, 2023 8:35 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD
Subject: (Extension Approval) - RDU 12 Extension Requests - Incident Numbers nHMP1407235518 and nAPP2315142829

Some people who received this message don't often get email from robert.hamlet@emnrd.nm.gov. [Learn why this is important](#)

RE: Incident #NHMP1407325518 and NAPP2315142829

Jim,

Your request for an extension to **September 28th, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 14, 2023 1:57 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechnv.com>
Subject: [EXTERNAL] RDU 12 Extension Requests - Incident Numbers nHMP1407235518 and nAPP2315142829

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Robert,

WPX Energy Permian, LLC (WPX) is requesting an extension to the current deadline for reports required in 19.15.29.12.B.(1) NMAC at the Ross Draw #012 (Site).

Two crude oil and produced water releases were discovered between March 5, 2014, and January 11, 2017, and subsequently assigned Incident Number nHMP1407235518 and nAB1702749185, respectively. NMOCD recently denied a closure report associated with both inadvertent releases on March 29, 2023, due to inadequate depth to groundwater data. As a result, NMOCD set a new due date for a subsequent report for June 30, 2023. Currently, there is new soil boring data to support the depth to groundwater determination at the Site. However, an additional inadvertent release of release of produced water occurred on May 15, 2023 (nAPP2315142829) and overlapped the same earthen

containment impacted by nHMP1407235518, therefore additional investigation is warranted to determine the presence or absence of impacts. Incident Number nAB1702749185 occurred in a separate location, therefore, a closure addendum will be submitted to address the denial.

To provide enough time for additional planning, remediation activities and subsequent corrective action report, WPX requests an extension of the deadline for the two overlapping releases associated with Incident Number nHMP1407235518 and nAPP2315142829 to September 28, 2023.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@devon.com



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

Erick Herrera

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Friday, June 16, 2023 3:37 PM
To: Erick Herrera
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (6/20 - 6/23)

Erick,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Erick Herrera <erick@etechenv.com>
Sent: Thursday, June 15, 2023 3:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (6/20 - 6/23)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

WPX anticipates conducting confirmation soil sampling activities at the following sites between June 20 – June 23, 2023:

Site Name: North Brushy PW Line
Incident Numbers: nAPP2231126594 & nAPP2312845934

Site Name: RDX 9#004
Incident Number: nAB1803254347
API: 30-015-40180

Site Name: RDX Federal COM 28 #009H
Incident Number: nAB1632648516
API: 30-015-43294

Site Name: Holly A Federal #006

Incident Number: nAPP2116548791

API: 30-015-25331

Site Name: Ross Draw #012

Incident Numbers: nHMP1407235518 and nAPP2315142829

API: 30-015-24793

Thank you,

Erick Herrera

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Monday, July 24, 2023 2:27 PM
To: Erick Herrera
Cc: Bratcher, Michael, EMNRD; Maxwell, Ashley, EMNRD; Hamlet, Robert, EMNRD
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (7/27 - 7/28)

You don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

Good afternoon Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Administrative Permitting Program
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive | Santa Fe, NM 87505
(505)469-7520 | Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Erick Herrera <erick@etechenv.com>
Sent: Monday, July 24, 2023 9:30 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.ralej@dmn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (7/27 - 7/28)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following site between July 27 through July 28, 2023:

Proposed Date: July 27, 2023 & July 28, 2023,
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: Ross Draw #012
Incident Numbers: nHMP1407325518 (2RP-2211) & nAPP2315142829
API: 30-015-24793

Thank you,

Erick Herrera

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

APPENDIX H

Original Closure Request



March 26, 2020
Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210

Re: Ross Draw Unit #12 Release Closure Request (2RP-2211 & 2RP-4095)

Mr. Bratcher,

The attached report summarizes the sampling activities at the Ross Draw Unit (RDU) #12 well pad. WPX requests no further action be taken until the reclamation of the Pad. Please contact me with any questions or concerns.

Best regards,

A handwritten signature in black ink, appearing to read "Lynda Laumbach".

Lynda Laumbach
Environmental Specialist

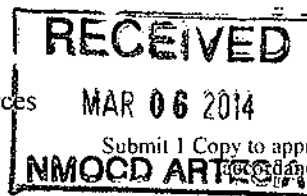
CC: Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Attachment 01 Site Characterization Report & Soil Closure Report

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

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



Form C-141
Revised August 8, 2011

Release Notification and Corrective Action

nHMP1407325518

246289

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	RKI EXPLORATION & PRODUCTION	Contact	HEATHER BREHM
Address	210 PARK AVE, STE 900, OKC, OK 73102	Telephone No.	405-996-5769
Facility Name	ROSS DRAW 12	Facility Type	POW
Surface Owner	Mineral Owner	API No. 30-015-24793	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	33	26S	30E	467'	NORTH	660'	EAST	EDDY

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	OIL/WATER	Volume of Release	15 BBLS	Volume Recovered	0 BBLS
Source of Release	TRANSFER PUMP	Date and Hour of Occurrence	Date and Hour of Discovery		
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	2-25-14 UKN TIME	BLM DISCOVERED 3/5/14 @ 9:00 AM	
By Whom?	M. BALLIET, BLM	Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

WATER TANK RAN OVER, TRANSFER PUMP OVERLOAD

Describe Area Affected and Cleanup Action Taken.*

SPILL WAS CONTAINED IN DIRT CONTAINMENT; DYKE

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCN 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 NMOCN marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCN acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Heather Brehm</i>		OIL CONSERVATION DIVISION	
Printed Name: Heather Brehm		Approved by Environmental Specialist: <i>Heather Brehm</i>	
Title: Regulatory Analyst		Approval Date: 3-14-14	Expiration Date: NA
E-mail Address: hbrehm@rkixp.com		Conditions of Approval:	
Date: 3/06/2014	Phone: 405-996-5769	Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	
		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

SUBMIT REMEDIATION PROPOSAL NO LATER THAN:

4-14-14

2RP 2211

Incident ID	2RP-2211
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	2RP-2211
District RP	
Facility ID	
Application ID	

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature:  Date: 03/26/2020

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

OCD Only

Received by: _____ Date: _____

Incident ID	2RP-2211
District RP	
Facility ID	
Application ID	

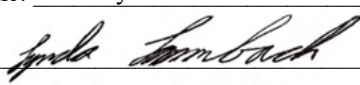
Closure

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: Lynda Laumbach Title: Environmental Specialist
Signature:  Date: 03/26/2020
email: Lynda.Laumbach@wpenergy.com Telephone: (575)725-1647

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: _____

Site Characterization Report & Soil Closure Request

WPX Energy, Inc.

RDU 12

Eddy County, New Mexico

Unit Letter A, Section 33, Township 26 South, Range 30 East

Latitude 32.004760 North, Longitude 103.879775 West

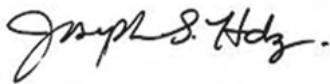
NMOCD Reference No. 2RP-2211 & 2RP-4095

Prepared By:

Etech Environmental & Safety Solutions, Inc.

13000 W County Road 100

Odessa, TX 79765



Joseph S. Hernandez - Project Manager

Intentional Blank



Midland • San Antonio • Lubbock • Lovington • Lafayette

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CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE.....	3.0
REMEDIATION ACTIVITIES SUMMARY.....	4.0
RESTORATION, RECLAMATION AND RE-VEGETATION PLAN.....	5.0
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FIGURES

Figure 1 - Topographic Map

Figure 2 - Aerial Proximity Map

Figure 3 (2RP-2211) & 3A (2RP-4095) - Site & Sample Location Map

TABLES

Table 1 - Concentrations of BTEX, TPH and/or Chloride in Soil (2RP-2211)

Table 1 - Concentrations of BTEX, TPH and/or Chloride in Soil (2RP-4095)

APPENDICES

Appendix A - Depth to Groundwater Information

Appendix B - Field Data and Soil Profile Logs

Appendix C - Laboratory Analytical Reports

Appendix D - Photographic Log

1.0 PROJECT INFORMATION (2RP-2211)

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy, Inc, has prepared this Site Characterization Report and Soil Closure Report for the Release Site Known as the Ross Draw 12. Details of the release are summarized below:

Location of Release Source

Latitude: 32.004760 Longitude: -103.8797758
 Provided GPS are in WGS84 format.

Site Name:	ROSS DRAW 12	Site Type:	Wellhead
Date Release Discovered:	2/25/2014	API # (if applicable):	30-015-24793

Unit Letter	Section	Township	Range	County
A	33	26S	30E	Eddy

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

Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 15	Volume Recovered (bbls) 0
<input checked="" type="checkbox"/> Produced Water		
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<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	Volume/Weight Recovered

Cause of Release:

This release was caused by a transfer pump overload, resulting in the water tank to overflow.

Initial Response

<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"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

1.0A PROJECT INFORMATION (2RP-4095)

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy, Inc, has prepared this Site Characterization Report and Soil Closure Report for the Release Site Known as the RDU 12. Details of the release are summarized below:

Location of Release Source

Latitude: 32.004760 Longitude: -103.8797758
 Provided GPS are in "Y I U: 6'hqto cv0"

Site Name:	RDU 12	Site Type:	Wellhead
Date Release Discovered:	1/11/2017	API # (if applicable):	30-015-24793

Unit Letter	Section	Township	Range	County
A	33	26S	30E	Eddy

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

Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 12	Volume Recovered (bbls) 4.5
<input checked="" type="checkbox"/> Produced Water		
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<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	Volume/Weight Recovered

Cause of Release:

This release was caused by human error; stuffing box failure. The spill migrated west of the pad, entered a dry drainage and migrated for about 100 yards.

Initial Response

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

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION (2RP-2211)

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100' bgs</u>	
Did the 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 any 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?	<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 the 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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figure 2.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release			
Probable Depth to Groundwater	Constituent	Method	Limit
>100' bgs	Chloride	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg

2.0A SITE CHARACTERIZATION (2RP-4095)

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100' bgs</u>	
Did the 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 any 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?	<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 the 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

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figure 2.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release			
Probable Depth to Groundwater	Constituent	Method	Limit
>100' bgs	Chloride	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg

4.0 REMEDIATION ACTIVITIES SUMMARY

On **January 15, 2020**, Etech personnel conducted initial site assessments for **two (2)** releases, **2RP-2211** and **2RP-4095**, that occurred at the RDU 12 Site in Eddy County, NM. The assessments consisted of generating a footprint via GPS receiver of the aforementioned releases and photo documentation of the current Site conditions. Based on visual observation, approximately **eight hundred and nineteen (819)** square feet of surface area was impacted from the release assigned **2RP-2211**; approximately **five thousand and fifty-three (5,053)** square feet of surface area was impacted from the release assigned **2RP-4095**. Between **January 22, 2020** and **February 25, 2020**, a series of test trenches and/or hand-augered soil bores were advanced within the release footprints in an effort to define the vertical and horizontal extent of impacted soil. Field soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and concentrations of chloride utilizing a Hach Quantab® chloride test kit. A "Site & Sample Location Map" is provided as Figure 3 (**2RP-2211**) and Figure 3A (**2RP-4095**). Field data and soil profile logs, if applicable, are provided as Appendix B.

Based on field observations and field test data associated with **2RP-2011**, **thirteen (13)** delineation soil samples (TT1@2', TT1@4', TT2@2', TT2@4', AH1@2', AH1@4', AH1@6', AH2@2', AH2@4', AH3@2', AH3@4', AH4@2' and AH4@4') were relinquished to an accredited laboratory for analysis of BTEX, TPH and Chloride concentrations. Laboratory analytical results indicated soil was not affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

Based on field observations and field test data associated with **2RP-4095**, **twenty (20)** delineation soil samples (TT1@2', TT1@12', TT2@2', TT2@4', TT3@2', TT3@4', AH1@2', AH1@4', AH2@2', AH2@4', AH3@2', AH3@4', AH4@2', AH4@4', AH5@2', AH5@4', AH6@2', AH6@4', AH7@2' and AH7@4') were relinquished to an accredited laboratory for analysis of BTEX, TPH and Chloride concentrations. Laboratory analytical results indicated soil was not affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

Based on laboratory analytical data, soil within the affected areas associated with **2RP-2211** and **2RP-4095** yielded concentrations below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard, therefore the soil has not been excavated from the affected areas.

5.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Laboratory analytical results from soil samples collected during delineation events indicated remediation was not required, therefore the affected area was left in-situ and not altered. Vegetation within the affected area will be monitored and may be reseeded with an agency-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the site, if necessary.

6.0 SOIL CLOSURE REQUEST

Delineation activities were conducted in accordance with applicable NMOCD Regulations. Laboratory analytical from the collected soil samples indicated soil in the affected area(s) was not impacted above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride was below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

Based on laboratory analytical results and field activities conducted to date, Etech recommends WPX Energy, Inc. provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the RDU 12 Site (**2RP-2211** and **2RP-4095**).

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Site Characterization Report and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Basis has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of WPX Energy, Inc. Use of the information contained in this report is prohibited within the consent of Etech and/or WPX Energy, Inc.

8.0 DISTRIBUTION

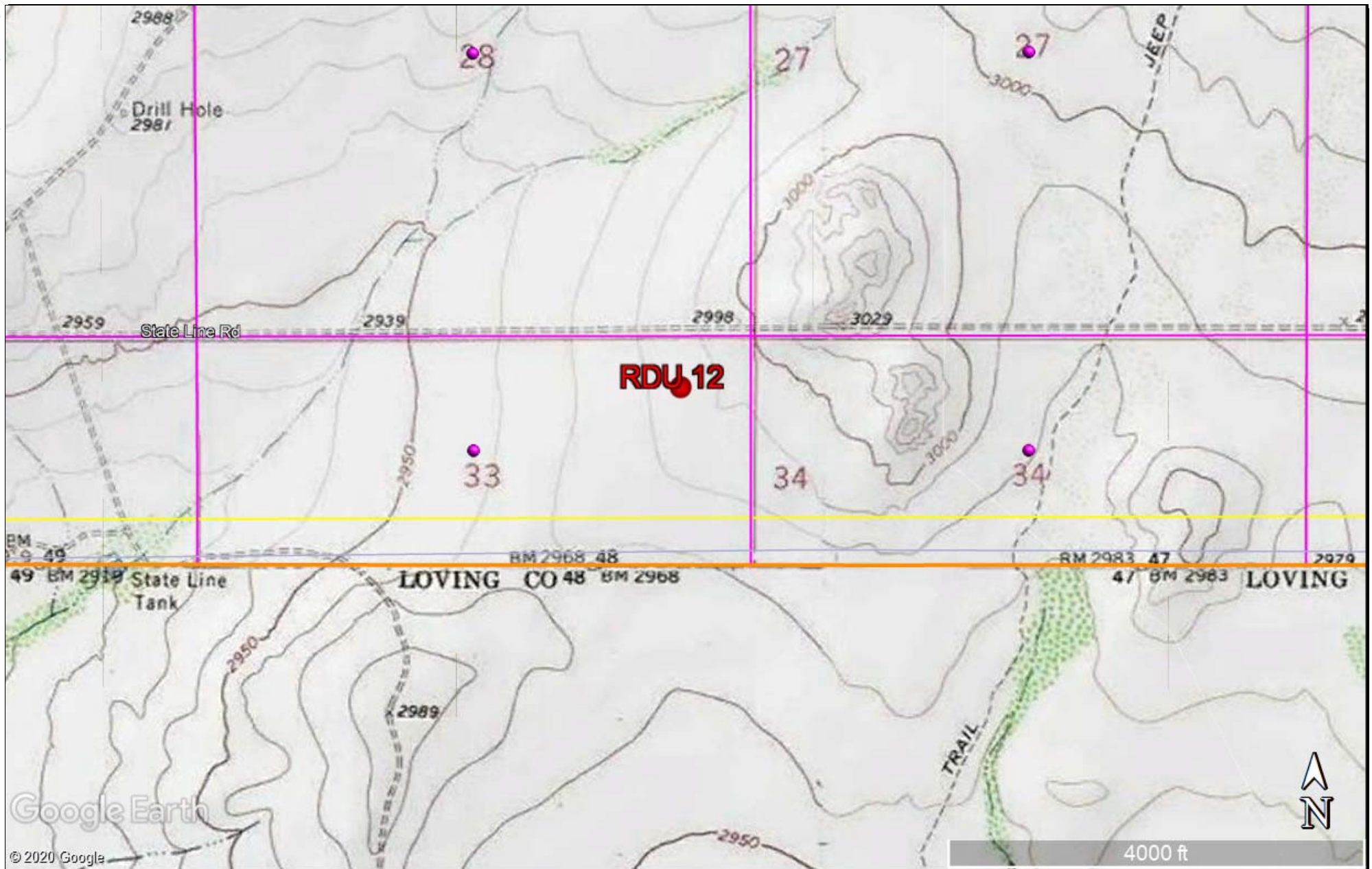
WPX Energy, Inc.
5315 Buena Vista Dr.
Carlsbad, NM 88220

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

(Electronic Submission)

Figure 1

Topographic Map



Legend:

- Site Location

Figure 1
Topographic Map
WPX Energy, Inc.
RDU 12
GPS: 32.004760, -103.8797758
Eddy County



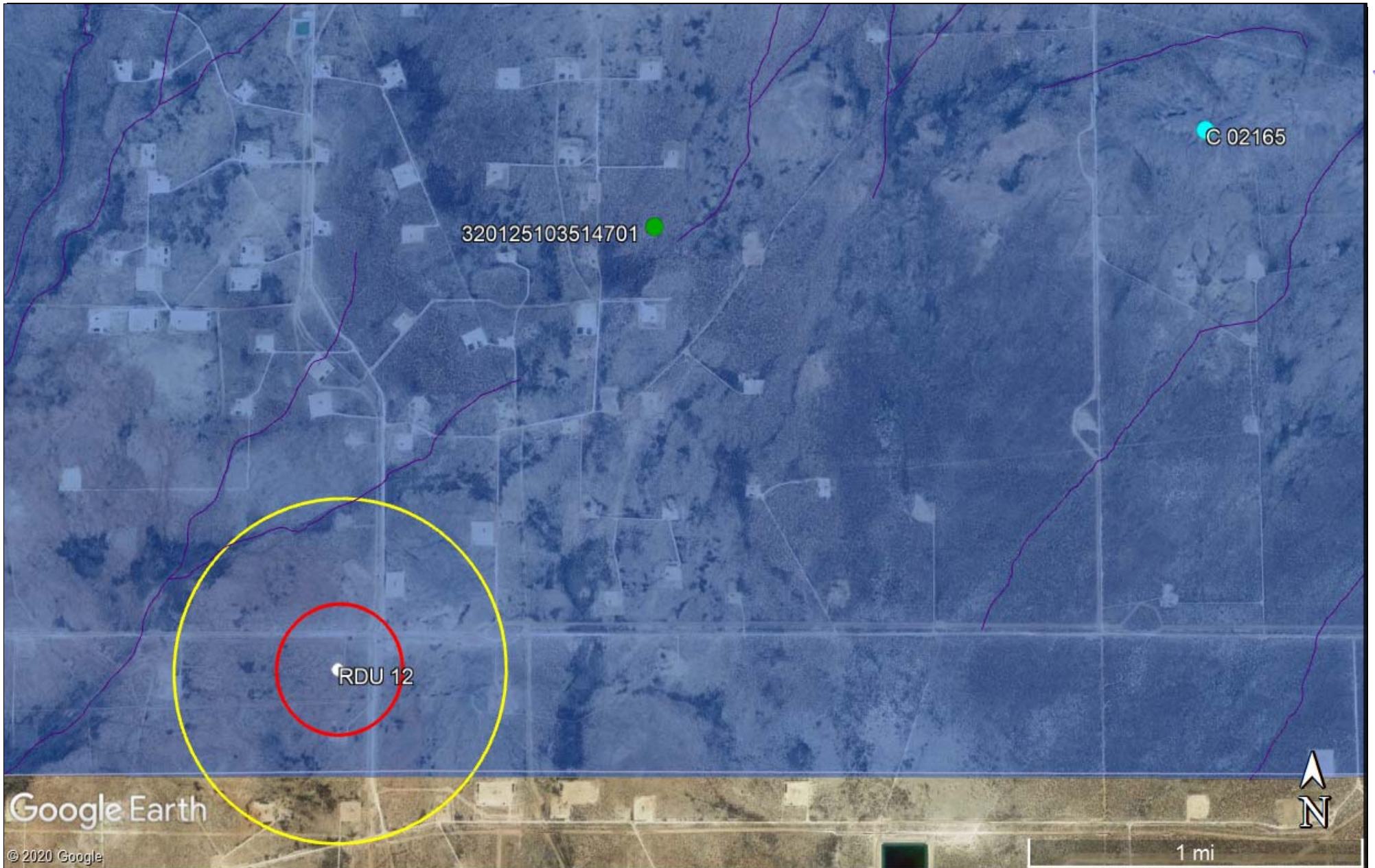
Drafted: JH

Checked: JH

Date: 3/2/20

Figure 2

Aerial Proximity Map



Legend:

	Site Location		Well - USGS
	1,000 ft. radius		Well - NMOSE
	0.5 mi. radius		Surface Water
	Low/Medium Karst zone		1% Annual Flood Chance
	High Karst		Potash Mine Workings

Figure 2
Aerial Map
WPX Energy, Inc.
RDU 12
GPS: 32.004760, -103.8797758
Eddy County

Environmental & Safety Solutions, Inc.

Drafted: JH Checked: JH Date: 3/2/20

Figure 3

Site and Sample Location Map



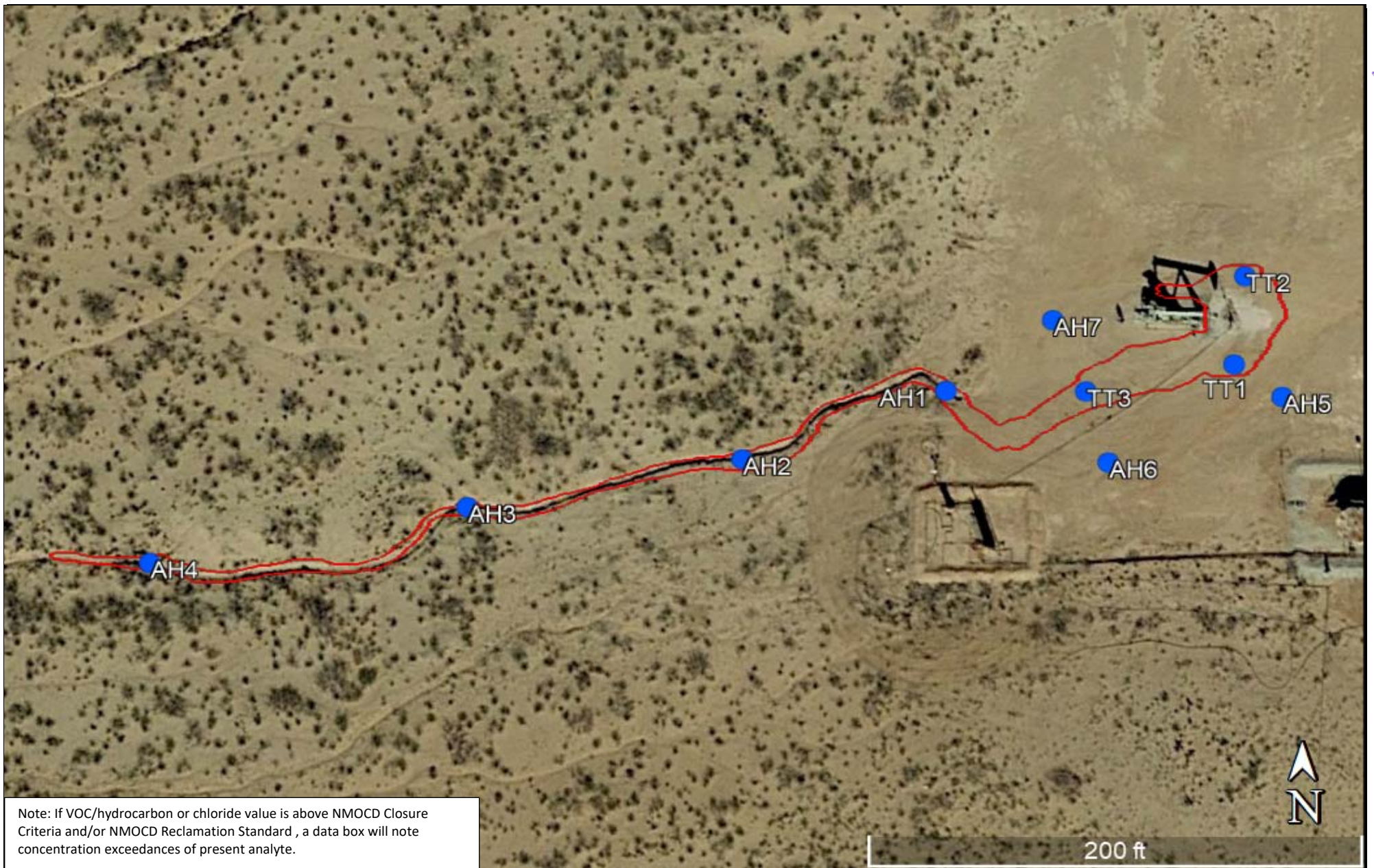
Legend:	
●	Delineation Point
—	Release outline

Figure 3
 Site and Sample Location
 RDU 12
 2RP-2211
 WPX Energy, Inc.
 GPS: 31.004760, -103.879775


Environmental & Safety Solutions, Inc.



Drafted: JH
Checked: JH
Date: 2/28/20



Legend:

- Delineation Point
- Release outline

Figure 3A

Site and Sample Location

RDU 12

2RP-4095

WPX Energy, Inc.

GPS: 31.004760, -103.879775



Drafted: JH

Checked: JH

Date: 2/28/20

Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX TPH AND CHLORIDE IN SOIL
WPX Energy, Inc.
ROSS DRAW 12
2RP-2211

Sample ID	Date	Depth	Soil Status	SW 846 8026B		SW 846 8015M Ext.					300.0 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
TT 1	1/22/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
TT 1	1/22/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
TT 2	1/22/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
TT 2	1/22/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 1	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	5,310
AH 1	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	1,970
AH 1	2/25/2020	6'	In-situ	ND	ND	ND	ND	ND	ND	ND	153
AH 2	2/25/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	166
AH 2	2/25/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 3	2/25/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	156
AH 3	2/25/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	129
AH 4	2/25/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 4	2/25/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	165
Closure Criteria				10	50	-	-	1,000	-	2,500	20,000

NOTES:

- = feet

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

ND text denotes non-detectable concentrations

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX TPH AND CHLORIDE IN SOIL
WPX Energy, Inc.
RDU 12
2RP-4095

Sample ID	Date	Depth	Soil Status	SW 846 8026B		SW 846 8015M Ext.					300.0 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
TT 1	1/22/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	1,360
TT 1	1/22/2020	12'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
TT 2	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	36.0
TT 2	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	108
TT 3	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	891
TT 3	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 1	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	222
AH 1	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	302
AH 2	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 2	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 3	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 3	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 4	1/23/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 4	1/23/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 5	2/25/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	ND
AH 5	2/25/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	178
AH 6	2/25/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	173
AH 6	2/25/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	155
AH 7	2/25/2020	2'	In-situ	ND	ND	ND	ND	ND	ND	ND	212
AH 7	2/25/2020	4'	In-situ	ND	ND	ND	ND	ND	ND	ND	142
Closure Criteria				10	50	-	-	1,000	-	2,500	20,000

NOTES:

- = feet

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

ND text denotes non-detectable concentrations

Appendix A

Depth to Groundwater Information



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Geographic Area:

Groundwater

United States

GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 320125103514701

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 320125103514701 26S.30E.22.44124

Eddy County, New Mexico
Latitude 32°01'25", Longitude 103°51'47" NAD27
Land-surface elevation 3,044 feet above NGVD29

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1987-10-21			D	117.03		2		S		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

- [Questions about sites/data?](#)
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[Automated retrievals](#)
[Help](#)
[Data Tips](#)
[Explanation of terms](#)
[Subscribe for system changes](#)
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Accessibility Plug-Ins FOIA Privacy Policies and Notices



[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-03-02 09:57:48 EST

0.28 0.26 nadww01




USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:	Geographic Area:	
Groundwater	United States	GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320125103514701

Minimum number of levels = 1

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

USGS 320125103514701 26S.30E.22.44124

Available data for this site

Eddy County, New Mexico

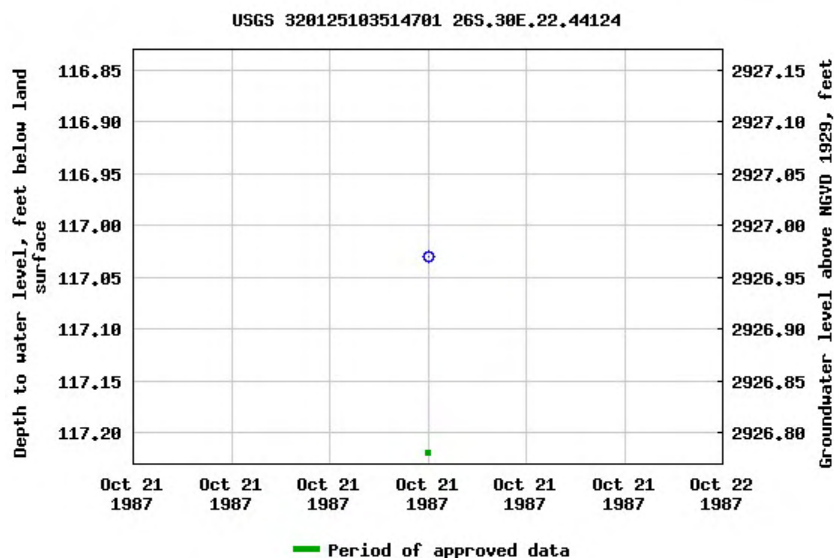
Hydrologic Unit Code 13070001

Latitude 32°01'25", Longitude 103°51'47" NAD27

Land-surface elevation 3,044 feet above NGVD29

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-03-02 09:55:57 EST

0.66 0.55 nadww01



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Q Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C 04068 POD1		CUB	ED	1	3	1	16	26S	30E	604397	3546018	4722			
C 02165		C	ED				24	26S	30E	610036	3544121*	4967	440	180	260
C 02038		C	ED	3	2	4	26	26S	29E	599204	3541992*	6622	200		
C 03483		C	ED	4	4	4	05	26S	30E	604296	3548251	6907	700	200	500
C 03581 POD1		CUB	ED	4	4	4	05	26S	30E	604298	3548291	6946	800	320	480
C 01361		CUB	ED	3	4	3	05	26S	30E	603240	3548157	7124	775	184	591
C 01360		CUB	ED	4	3	3	05	26S	30E	602997	3548152	7211	770	173	597
C 01354 X-3		CUB	ED	2	1	3	23	26S	29E	598323	3543837	7838	170		
C 03605 POD1		CUB	ED	4	2	3	27	26S	29E	596990	3541983	8831	45	0	45
C 02248		CUB	ED	1	2	3	08	26S	31E	612942	3547316*	9196	300	292	8
C 02249		CUB	ED	1	2	3	08	26S	31E	612942	3547316*	9196	300	292	8
C 01777		C	ED				08	26S	31E	613245	3547409*	9490	325	300	25

Average Depth to Water: **215 feet**
Minimum Depth: **0 feet**
Maximum Depth: **320 feet**

Record Count: 12

UTMNAD83 Radius Search (in meters):

Easting (X): 605808.6733984414

Northing (Y): 3541511.5491144983

Radius: 10000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/1/20 1:47 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: C 02165 **Subbasin:** C **Cross Reference:** -
Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: GRACE OIL
Contact: CORKY GLENN

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/		Acres	Diversion	Consumptive
				1	2		To				
get images	468923	72121	1988-05-02	PMT	LOG	C 02165	T			3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	64Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
C 02165		Shallow			24	26S 30E	610036	3544121*	1780 FEL 460 FSL

An () after northing value indicates UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/2/20 7:57 AM

WATER RIGHT SUMMARY

Appendix B

Field Data and Soil Profile Logs



Sample Log

Date:

Jan²²⁻
23, 2020

Project: RDU 12 (2RP-2211, 2RP-4095)

Project Number: 11755

Latitude: 32.00476033

Longitude: -103.8797759

[illegible]

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Soil Profile

Date: Jan 22-23, 2020Project: RDU 12 (2RP-2211)Project Number: 11755Latitude: 32.00476033Longitude: -103.8797759

Depth (ft. bgs)

Description

1	
2	light medium brown silty sand trace caliche
3	medium brown silty sand
4	" " caliche in part
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
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37	
38	
39	
40	



Sample Log

Project: RDU 12 (2RP-2211)

Date: 7.25.20

Project Number: 11755

Latitude: 32.00476033 Longitude: -103.8797759

[illegible]

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Soil Profile

Date: 2.25.20Project: RDU 12 (2RP-2211)Project Number: 11755Latitude: 32.00476033Longitude: -103.8797759

Depth (ft. bgs)

Description

AH 1 @

1	
2	light-medium brown silty sand, poorly sorted
3	medium brown silty sand
4	" "
5	medium brown silty sand, trace caliche
6	
7	brown silty sand, trace of clays
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
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Sample Log

Date: Jan 22-23, 2020

Project: RDU 12 (2RP-2211 (2RP-4095))

Project Number: 11755 Latitude: 32.00476033 Longitude: -103.8797759

Sample ID	PID/Odor	Chloride Conc.	GPS
TT1 @ 1' @ 1:35 pm	10.0 / mild	7.2	1,812
2' @ 1:45 pm	0.2 / none	4.6	744
4' @ 1:50 pm	40.0 / mild	5.4	996
6' @ 1:55 pm	20.5 / mild	6.8	1,588
8' @ 2:00 pm	30.0 / mild	~4.8	804
10' @ 2:15 pm	5.6 / mild	5.0	864
12' @ 2:20 pm	0.1 / none	1.0	<108
TT2 @ 1' @ 10:30 am	2.0 / none	5.6	1,068
2' @ 10:45 am	0 / none	4.6	744
4' @ 10:50 am	" "	2.0	164
TT3 @ 1' @ 11:00 am	1.3 / none	6.2	1,304
2' @ 11:15 am	0 / none	6.0	1,220
4' @ 11:20 am	" "	1.4	<108
AH1 @ 1' @ 11:57 am	0 / none	3.0	348
2' @ 12:00 pm	" "	1.8	132
4' @ 12:05 pm	" "	1.2	<108
AH2 @ 1' @ 12:07 pm	0 / none	2.4	232
2' @ 12:10 pm	" "	1.0	<108
4' @ 12:15 pm	" "	0.8	" "
AH3 @ 1' @ 12:17 pm	0 / none	2.0	164
2' @ 12:20 pm	" "	1.6	108
4' @ 12:25 pm	" "	1.0	<108
AH4 @ 1' @ 12:27 pm	0 / none	1.8	132
2' @ 12:30 pm	" "	0.8	<108
4' @ 12:35 pm	" "	0.6	<108

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Area



Soil Profile

Project:

Date: Jun 22-23-2020

Project Number:

RDU 12 (2RP-4095)11755

Latitude:

32.00476033

Longitude:

-103.8797759

Depth (ft. bgs)

Description

1	caliche + med brown silty sand
2	light - med brown silty sand
3	
4	medium brown silty sand, caliche in part
5	
6	medium dk brown clay w/ silty sand
7	
8	medium brown silty sand, clay in part, trace caliche
9	
10	clays w/ trace red sandstone
11	
12	" S A A "
13	
14	
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Sample Log

Project: RDU 12 (2RP-4095)
Project Number: _____

Date: 2.25.20

Project Number: 11755

Latitude: 32.00476033 **Longitude:** -103.8797759

[illegible]

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Soil Profile

Date: 2.25.20Project: RDU 12 (2RP-4095)Project Number: 11755Latitude: 32.00476033Longitude: -103.8797759

Depth (ft. bgs)

Description

1	light - med dk brown, silty sand
2	med dk brown silty sand
3	med brown silty sand, caliche in part
4	med brown silty sand trace of caliche
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
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Location RDU 12 (2RP-2211, 4095) Date 1.15.20

3

Project / Client WPX EnergyScale 32.00476033, -103.8797759

0912 - Arrive onsite / prepare JSA

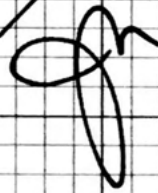
0930 - Tailgate safety meeting

0945 - Take photos of releases

0955 - Stake white flags for one-catch

10:15 - Begin release track(s)

10:40 - Leave site



Rite in the Rain

Location RDU 12Date 1-22-20Project / Client ZRP-4095 / ZRP-2211 (WAX)32.00476033, -103.8797759

1:20 pm - Onsite w/ Kemp (operator)

prepare JSA, conduct tailgate safety meeting, calibrate PID

1:25 pm - Site walk through, confirm utility locates: Yellow flags down

1:27 pm - Begin delineation activities for ZRP-4095

2:30 pm - Call Delaware Basin to schedule line remark to confirm subsurface gas line. (west of pad from meter run)

2:45 pm - Prep for delineation activities (ZRP-2211) inside tank battery

3:00 pm - Utilize backhoe to pot-hole over fence.

3:05 pm - Begin delineation activities for (-2211)

4:15 pm - Finish, load equipment

4:30 pm - offsite

SM

Location RDU 12Date 1.23.20Project / Client ZRP-4095 / ZRP-2211 (WPA)32.004760332, -103.079775899

10:15 am - Confirmed w/ Delaware Basin, site has been remarked, can cont. to delineate on pad.

10:20 am - Prep JSA - tailgate safety meeting w/ Kemp. Inke equipment, calibrate ~~JSA~~ PID

10:25 am - Continue delineating ZRP-4095

11:45 am - ~~Install~~ ^{Install} borings in pasture / wash

12:35 pm - Finish borings for ZRP-4095

1:00 pm - Install augerhole inside tank battery inaccessible w/ equipment for -2211.

1:45 pm - Finish delineation activities

2:30 pm - load equipment

3:00 pm - offsite to submit samples.

* reference Sample map / log for screening



26

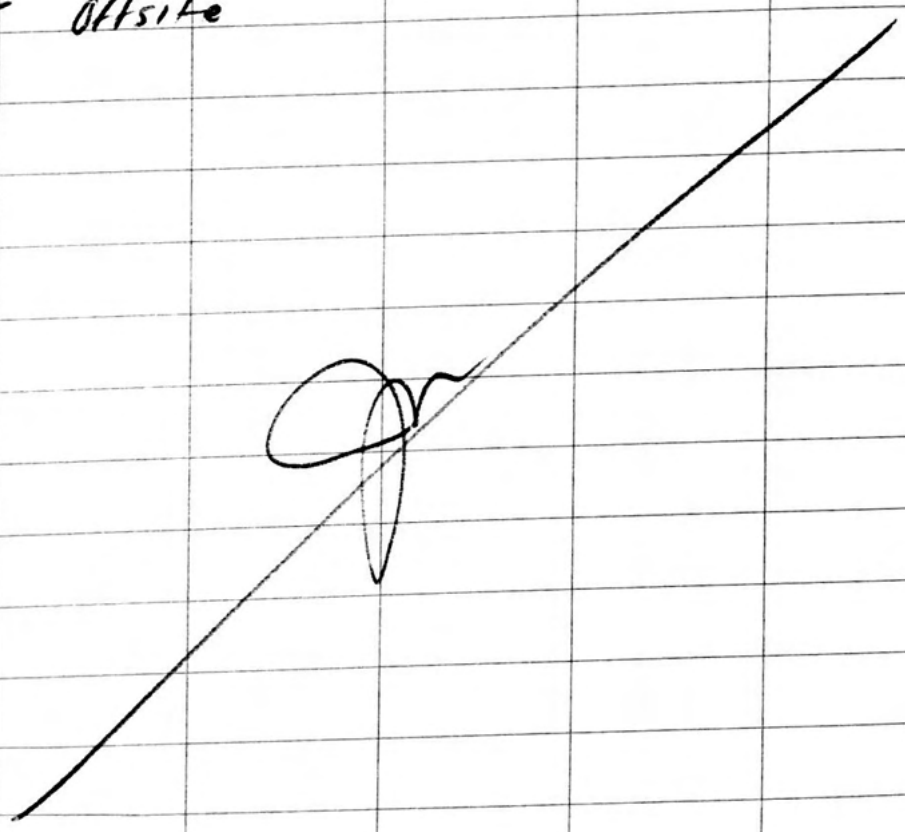
Location RDU12 (2RP-2211, 4095) Date 2/25/20Project / Client WPX Energy

1:00 pm - Onsite, JSA prep, tailgate safety meeting, calibrate PID, prep screening equipment

1:30 pm - Begin delineating (cont.) 2211 & 4095

5:30 pm - Finish delineating site / screening
Begin jarring samples to take to lab

5:50 pm - Offsite



Appendix C

Laboratory Analytical Reports



Analytical Report

Report Summary

Client: WPX (Carlsbad)

Samples Received: 1/24/2020

Job Number: 04108-0639

Work Order: P001079

Project Name/Location: RDU 12 (2RP-2211)

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light blue rectangular background.

Date: 1/30/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



WPX (Carlsbad)
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDU 12 (2RP-2211)
Project Number: 04108-0639
Project Manager: Lynda Laumbach

Reported:
01/30/20 16:46

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TT2 @ 2'	P001079-01A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT2 @ 4'	P001079-02A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT1 @ 2'	P001079-03A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT1 @ 4'	P001079-04A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
AH1 @ 2'	P001079-05A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH1 @ 4'	P001079-06A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	Reported: 01/30/20 16:46
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

TT2 @ 2'
P001079-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	2005010	01/27/20	01/29/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		90.0 %		50-200	2005001	01/27/20	01/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.5 %		50-150	2005010	01/27/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

TT2 @ 4'
P001079-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2005010	01/27/20	01/29/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		101 %		50-200	2005001	01/27/20	01/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.6 %		50-150	2005010	01/27/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

TT1 @ 2'
P001079-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	2005010	01/27/20	01/29/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		87.9 %		50-200	2005001	01/27/20	01/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.3 %		50-150	2005010	01/27/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

TT1 @ 4'
P001079-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	2005010	01/27/20	01/29/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		93.5 %		50-200	2005001	01/27/20	01/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		87.7 %		50-150	2005010	01/27/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

AH1 @ 2'
P001079-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	2005010	01/27/20	01/29/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Surrogate: n-Nonane		85.4 %		50-200	2005001	01/27/20	01/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.8 %		50-150	2005010	01/27/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	5310	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	Reported: 01/30/20 16:46
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

AH1 @ 4'
P001079-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	2005010	01/27/20	01/29/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005001	01/27/20	01/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		89.8 %		50-200	2005001	01/27/20	01/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005010	01/27/20	01/29/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.7 %		50-150	2005010	01/27/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	1970	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005010 - Purge and Trap EPA 5030A

Blank (2005010-BLK1)

Prepared: 01/27/20 1 Analyzed: 01/30/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 7.96 " 8.00 99.5 50-150

LCS (2005010-BS1)

Prepared: 01/27/20 1 Analyzed: 01/28/20 1

Benzene	5.07	0.0250	mg/kg	5.00		101	70-130			
Toluene	5.15	0.0250	"	5.00		103	70-130			
Ethylbenzene	5.07	0.0250	"	5.00		101	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	5.03	0.0250	"	5.00		101	70-130			
Total Xylenes	15.1	0.0250	"	15.0		101	70-130			

Surrogate: 4-Bromochlorobenzene-PID 8.10 " 8.00 101 50-150

Matrix Spike (2005010-MS1)

Source: P001077-01

Prepared: 01/27/20 1 Analyzed: 01/28/20 2

Benzene	4.90	0.0250	mg/kg	5.00	ND	97.9	54.3-133			
Toluene	5.02	0.0250	"	5.00	ND	100	61.4-130			
Ethylbenzene	4.95	0.0250	"	5.00	ND	99.0	61.4-133			
p,m-Xylene	9.84	0.0500	"	10.0	ND	98.4	63.3-131			
o-Xylene	4.92	0.0250	"	5.00	ND	98.4	63.3-131			
Total Xylenes	14.8	0.0250	"	15.0	ND	98.4	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.20 " 8.00 103 50-150

Matrix Spike Dup (2005010-MSD1)

Source: P001077-01

Prepared: 01/27/20 1 Analyzed: 01/28/20 2

Benzene	4.87	0.0250	mg/kg	5.00	ND	97.5	54.3-133	0.454	20	
Toluene	5.00	0.0250	"	5.00	ND	100	61.4-130	0.454	20	
Ethylbenzene	4.94	0.0250	"	5.00	ND	98.8	61.4-133	0.212	20	
p,m-Xylene	9.82	0.0500	"	10.0	ND	98.2	63.3-131	0.258	20	
o-Xylene	4.91	0.0250	"	5.00	ND	98.2	63.3-131	0.239	20	
Total Xylenes	14.7	0.0250	"	15.0	ND	98.2	63.3-131	0.252	20	

Surrogate: 4-Bromochlorobenzene-PID 8.21 " 8.00 103 50-150

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005001 - DRO Extraction EPA 3570

Blank (2005001-BLK1)

Prepared: 01/27/20 0 Analyzed: 01/27/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	53.3		"	50.0		107	50-200			

LCS (2005001-BS1)

Prepared: 01/27/20 0 Analyzed: 01/27/20 1

Diesel Range Organics (C10-C28)	450	25.0	mg/kg	500		90.1	38-132			
Surrogate: n-Nonane	50.2		"	50.0		100	50-200			

Matrix Spike (2005001-MS1)

Source: P001072-01

Prepared: 01/27/20 0 Analyzed: 01/27/20 1

Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500	29.1	90.0	38-132			
Surrogate: n-Nonane	47.3		"	50.0		94.7	50-200			

Matrix Spike Dup (2005001-MSD1)

Source: P001072-01

Prepared: 01/27/20 0 Analyzed: 01/27/20 1

Diesel Range Organics (C10-C28)	483	25.0	mg/kg	500	29.1	90.9	38-132	0.962	20	
Surrogate: n-Nonane	47.5		"	50.0		95.0	50-200			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	Reported: 01/30/20 16:46
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005010 - Purge and Trap EPA 5030A

Blank (2005010-BLK1)

Prepared: 01/27/20 1 Analyzed: 01/30/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.05		"	8.00		88.1	50-150			

LCS (2005010-BS2)

Prepared: 01/27/20 1 Analyzed: 01/28/20 1

Gasoline Range Organics (C6-C10)	46.6	20.0	mg/kg	50.0		93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.08		"	8.00		88.5	50-150			

Matrix Spike (2005010-MS2)

Source: P001077-01

Prepared: 01/27/20 1 Analyzed: 01/28/20 2

Gasoline Range Organics (C6-C10)	48.2	20.0	mg/kg	50.0	ND	96.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.12		"	8.00		89.0	50-150			

Matrix Spike Dup (2005010-MSD2)

Source: P001077-01

Prepared: 01/27/20 1 Analyzed: 01/28/20 2

Gasoline Range Organics (C6-C10)	45.1	20.0	mg/kg	50.0	ND	90.2	70-130	6.61	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.15		"	8.00		89.4	50-150			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	01/30/20 16:46

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005019 - Anion Extraction EPA 300.0/9056A**Blank (2005019-BLK1)**

Prepared & Analyzed: 01/28/20 1

Chloride ND 20.0 mg/kg

LCS (2005019-BS1)

Prepared & Analyzed: 01/28/20 1

Chloride 254 20.0 mg/kg 250 102 90-110

Matrix Spike (2005019-MS1)**Source: P001076-01**

Prepared & Analyzed: 01/28/20 1

Chloride 1600 100 mg/kg 250 1360 96.3 80-120

Matrix Spike Dup (2005019-MSD1)**Source: P001076-01**

Prepared & Analyzed: 01/28/20 1

Chloride 1620 100 mg/kg 250 1360 104 80-120 1.26 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.

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WPX (Carlsbad) 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDU 12 (2RP-2211) Project Number: 04108-0639 Project Manager: Lynda Laumbach	Reported: 01/30/20 16:46
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Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

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

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Project Information					Chain of Custody		Lab Use Only		TAT		EPA Program					
Client: _____					Report due by: _____		Lab WO# _____		Job Number _____		1D	3D	RCRA	CWA	SDWA	
Project: <u>RDU 12 (2RP-2211)</u>					Attention: _____		<u>P001079</u>		<u>04108-0039</u>							
Project Manager: _____					Address: _____		Analysis and Method		State		NM <input checked="" type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/>					
Address: _____					City, State, Zip _____											
City, State, Zip _____					Phone: _____											
Phone: _____					Email: <u>joseph@etcshenv.com</u>		DRO/ORO by 8015		GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	Remarks		
Email: <u>Lynda@WPX</u>																
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number											
3:45pm	1-22-20	S	1	TT2 @ 2'	1											
3:50pm	1-22-20	S	1	TT2 @ 4'	2											
3:15pm	1-22-20		1	TT1 @ 2'	3											
3:20pm	1-22-20		1	TT1 @ 4'	4											
1:15pm	1-23-20		1	AH1 @ 2'	5											
1:30pm			1	AH1 @ 4'	6											

Additional Instructions:

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

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

Relinquished by: (Signature) _____	Date <u>1-23-20</u>	Time <u>4:25 pm</u>	Received by: (Signature) _____	Date <u>1-23-2020</u>	Time <u>1625</u>	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 <u>1-24-2020</u>	Time <u>1915</u>	Received by: (Signature) _____	Date <u>1/24/20</u>	Time <u>19:30</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.



5796 US Highway 64, Farmington, NM 87401
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laboratory@envirotech-inc.com

Project Information					Chain of Custody		Lab Use Only		TAT		EPA Program				
Client: <u>WPX</u>					Report due by:		Lab WO# <u>P001079</u>		Job Number <u>04108-0039</u>		1D	3D	RCRA	CWA	SDW
Project: <u>RDU 12 (ZEP-2211)</u>					Attention:		Analysis and Method								
Project Manager: <u>Lynda Laumbach</u>					Address:										
Address:					City, State, Zip		State								
City, State, Zip					Phone:										
Phone:					Email: <u>joseph@etcchenr.com</u>		<div style="display: flex; justify-content: space-between;"> <div> DRO/ORO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0 <u>BL-DOC-M</u> </div> <div> <input checked="" type="checkbox"/> NM <input type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> A </div> </div>								
Email: <u>Lynda@WPX</u>															
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	Remarks									
3:45pm	1-22-20	S	1	TT2 @ 2'	1	<div style="display: flex; align-items: center;"> <div style="border-left: 2px solid black; height: 100px; margin-right: 10px;"></div> <div> <input checked="" type="checkbox"/> X </div> </div>									
3:50pm	1-22-20	S	1	TT2 @ 4'	2										
3:15pm	1-22-20	S	1	TT1 @ 2'	3										
3:20pm	1-22-20	S	1	TT1 @ 4'	4										
1:15pm	1-23-20	S	1	AH1 @ 2'	5										
1:30pm	1-23-20	S	1	AH1 @ 4'	6										

Additional Instructions:

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

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

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>1-23-20</u>	Time <u>4:25pm</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>1-23-2020</u>	Time <u>1625</u>	<div style="text-align: right;">Lab Use Only</div> Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>1-24-2020</u>	Time <u>1915</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>1/24/20</u>	Time <u>19:30</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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laboratory@envirotech-inc.com



Analytical Report

Report Summary

Client: WPX (Carlsbad)

Samples Received: 2/27/2020

Job Number: 04108-0639

Work Order: P002091

Project Name/Location: RDU 12 (2RP-2211)

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light blue rectangular background.

Date: 2/28/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



WPX (Carlsbad)
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDU 12 (2RP-2211)
Project Number: 04108-0639
Project Manager: Lynda Laumbach

Reported:
02/28/20 13:37

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
AH1 @ 6'	P002091-01A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH2 @ 2'	P002091-02A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH2 @ 4'	P002091-03A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH3 @ 2'	P002091-04A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH3 @ 4'	P002091-05A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH4 @ 2'	P002091-06A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH4 @ 4'	P002091-07A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	Reported: 02/28/20 13:37
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

AH1 @ 6'
P002091-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		89.5 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		85.4 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	153	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

AH2 @ 2'
P002091-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		84.8 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		85.6 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	166	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

AH2 @ 4'
P002091-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		92.0 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.0 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	Reported: 02/28/20 13:37
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

AH3 @ 2'
P002091-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		93.8 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		85.4 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	156	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

AH3 @ 4'
P002091-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		95.2 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.3 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	129	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

AH4 @ 2'
P002091-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		87.2 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.1 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

AH4 @ 4'
P002091-07 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.9 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		96.7 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.4 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	165	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	Reported: 02/28/20 13:37
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

Volatile Organics by EPA 8021 - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009030 - Purge and Trap EPA 5030A**Blank (2009030-BLK1)**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 8.34 " 8.00 104 50-150

LCS (2009030-BS1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	4.94	0.0250	mg/kg	5.00		98.7	70-130			
Toluene	4.94	0.0250	"	5.00		98.8	70-130			
Ethylbenzene	4.93	0.0250	"	5.00		98.6	70-130			
p,m-Xylene	9.84	0.0500	"	10.0		98.4	70-130			
o-Xylene	4.93	0.0250	"	5.00		98.6	70-130			
Total Xylenes	14.8	0.0250	"	15.0		98.5	0-200			

Surrogate: 4-Bromochlorobenzene-PID 8.42 " 8.00 105 50-150

Matrix Spike (2009030-MS1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	4.96	0.0250	mg/kg	5.00	ND	99.1	54.3-133			
Toluene	4.96	0.0250	"	5.00	ND	99.2	61.4-130			
Ethylbenzene	4.96	0.0250	"	5.00	ND	99.1	61.4-133			
p,m-Xylene	9.90	0.0500	"	10.0	ND	99.0	63.3-131			
o-Xylene	4.96	0.0250	"	5.00	ND	99.3	63.3-131			
Total Xylenes	14.9	0.0250	"	15.0	ND	99.1	0-200			

Surrogate: 4-Bromochlorobenzene-PID 8.40 " 8.00 105 50-150

Matrix Spike Dup (2009030-MSD1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	5.11	0.0250	mg/kg	5.00	ND	102	54.3-133	3.13	20	
Toluene	5.09	0.0250	"	5.00	ND	102	61.4-130	2.55	20	
Ethylbenzene	5.07	0.0250	"	5.00	ND	101	61.4-133	2.31	20	
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131	2.15	20	
o-Xylene	5.07	0.0250	"	5.00	ND	101	63.3-131	2.20	20	
Total Xylenes	15.2	0.0250	"	15.0	ND	101	0-200	2.17	200	

Surrogate: 4-Bromochlorobenzene-PID 8.44 " 8.00 105 50-150

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009029 - DRO Extraction EPA 3570

Blank (2009029-BLK1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	46.1		"	50.0		92.2	50-200			

LCS (2009029-BS1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	453	25.0	mg/kg	500		90.6	38-132			
Surrogate: n-Nonane	47.5		"	50.0		95.0	50-200			

Matrix Spike (2009029-MS1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	462	25.0	mg/kg	500	ND	92.4	38-132			
Surrogate: n-Nonane	48.3		"	50.0		96.5	50-200			

Matrix Spike Dup (2009029-MSD1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	466	25.0	mg/kg	500	ND	93.2	38-132	0.836	20	
Surrogate: n-Nonane	48.6		"	50.0		97.2	50-200			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009030 - Purge and Trap EPA 5030A

Blank (2009030-BLK1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		"	8.00		94.1	50-150			

LCS (2009030-BS2)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	46.6	20.0	mg/kg	50.0		93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		"	8.00		93.1	50-150			

Matrix Spike (2009030-MS2)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	46.4	20.0	mg/kg	50.0	ND	92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		"	8.00		94.2	50-150			

Matrix Spike Dup (2009030-MSD2)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	47.5	20.0	mg/kg	50.0	ND	94.9	70-130	2.15	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		"	8.00		92.4	50-150			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-2211)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:37

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009031 - Anion Extraction EPA 300.0/9056A**Blank (2009031-BLK1)**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	ND	20.0	mg/kg							
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LCS (2009031-BS1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	263	20.0	mg/kg	250		105	90-110			
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Matrix Spike (2009031-MS1)**Source: P002090-01**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	331	100	mg/kg	250	ND	132	80-120			M1
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Matrix Spike Dup (2009031-MSD1)**Source: P002090-01**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	324	100	mg/kg	250	ND	130	80-120	2.05	20	M1
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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.

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WPX (Carlsbad) 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDU 12 (2RP-2211) Project Number: 04108-0639 Project Manager: Lynda Laumbach	Reported: 02/28/20 13:37
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Notes and Definitions

M1 Matrix spike recovery was above acceptance 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

** Methods marked with ** are non-accredited methods.

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

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Project Information

Chain of Custody

Page 1 of 15

Client: WPX
 Project: KDU 12 (2RP-2211)
 Project Manager:
 Address:
 City, State, Zip
 Phone:
 Email: Lynda @ WPX

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

Lab Use Only
 Lab WO# P 002091 Job Number 04108-0639
 TAT 1D ☒ 3D ☐
EPA Program RCRA ☐ CWA ☐ SD ☐

Analysis and Method
 DRO/ORO by 8015 ☐ GRO/DRO by 8015 ☐ BTEX by 8021 ☐ VOC by 8260 ☐ Chloride 300.0 ☐ BGDOC - NM TCEQ 1005 ☐ BGDOC - NM ☐ BGDOC - TX ☐
State NM ☒ CO ☐ UT ☐ AZ ☐

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005	BGDOC - NM	BGDOC - TX	Remarks
5:25pm	2.25.20	S	1	AH1@6'	1						X				
3:25pm		S	1	AH2@2'	2						X				
3:40pm		S	1	AH2@4'	3						X				
4:00pm		S	1	AH3@2'	4						X				
4:15pm		S	1	AH3@4'	5						X				
4:25pm		S	1	AH4@2'	6						X				
4:45pm		S	1	AH4@4'	7						X				

Additional Instructions:

* 24 hr TAT

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

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	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	
	2.25.20	5:15pm		2.25.20	1715	
	2.26.2020	1325	Raim Lopez	2/27/20	9:30	

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.



5796 US Highway 64, Farmington, NM 87401
 24 Hour Emergency Response Phone (800) 362-1379

Ph (505) 532-1881 Fx (505) 632-1855

envirotech-inc.com
 labadmin@envirotech-inc.com



Analytical Report

Report Summary

Client: WPX (Carlsbad)

Samples Received: 1/24/2020

Job Number: 04108-0639

Work Order: P001076

Project Name/Location: RDU 12 (2RP-4095)

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light blue rectangular background.

Date: 1/30/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



WPX (Carlsbad)
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDU 12 (2RP-4095)
Project Number: 04108-0639
Project Manager: Joseph Hernandez

Reported:
01/30/20 13:41

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TT1 @ 2'	P001076-01A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT1 @ 12'	P001076-02A	Soil	01/22/20	01/24/20	Glass Jar, 4 oz.
TT2 @ 2'	P001076-03A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
TT2 @ 4'	P001076-04A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
TT3 @ 2'	P001076-05A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
TT3 @ 4'	P001076-06A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 1 @ 2'	P001076-07A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 1 @ 4'	P001076-08A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 2 @ 2'	P001076-09A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 2 @ 4'	P001076-10A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 3 @ 2'	P001076-11A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 3 @ 4'	P001076-12A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 4 @ 2'	P001076-13A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.
AH 4 @ 4'	P001076-14A	Soil	01/23/20	01/24/20	Glass Jar, 4 oz.

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

TT1 @ 2'
P001076-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		110 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		96.2 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		91.6 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		89.6 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		110 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		96.2 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		91.6 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	1360	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

TT1 @ 12'
P001076-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		103 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		98.3 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		92.4 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		90.7 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		103 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		98.3 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		92.4 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

TT2 @ 2'
P001076-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		106 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		96.5 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		90.5 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		88.7 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		106 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		96.5 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		90.5 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	36.0	20.0	mg/kg	1	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	Reported: 01/30/20 13:41
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	

TT2 @ 4'
P001076-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		104 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		96.7 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		91.1 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		87.9 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		104 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		96.7 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		91.1 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	108	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

TT3 @ 2'
P001076-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		107 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		96.9 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		91.3 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		76.9 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		107 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		96.9 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		91.3 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	891	40.0	mg/kg	2	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

TT3 @ 4'
P001076-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		105 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		96.4 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		88.5 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		85.5 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		105 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		96.4 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		88.5 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

AH 1 @ 2'
P001076-07 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		108 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		95.2 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		89.4 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		89.8 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		108 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		95.2 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		89.4 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	222	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

AH 1 @ 4'
P001076-08 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		110 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Toluene-d8		96.8 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	
Surrogate: Bromofluorobenzene		90.2 %		70-130	2005016	01/28/20	01/28/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		89.4 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		110 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Toluene-d8		96.8 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	
Surrogate: Bromofluorobenzene		90.2 %		70-130	2005016	01/28/20	01/28/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	302	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

AH 2 @ 2'
P001076-09 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		107 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Toluene-d8		95.9 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Bromofluorobenzene		89.5 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		87.8 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		107 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Toluene-d8		95.9 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Bromofluorobenzene		89.5 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

AH 2 @ 4'
P001076-10 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		111 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Toluene-d8		97.3 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Bromofluorobenzene		91.0 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		90.5 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		111 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Toluene-d8		97.3 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Bromofluorobenzene		91.0 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	Reported: 01/30/20 13:41
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	

AH 3 @ 2'
P001076-11 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		107 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Toluene-d8		96.2 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Bromofluorobenzene		90.3 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/28/20	EPA 8015D	
Surrogate: n-Nonane		84.6 %		50-200	2005012	01/27/20	01/28/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		107 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Toluene-d8		96.2 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Bromofluorobenzene		90.3 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/28/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

AH 3 @ 4'
P001076-12 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		109 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Toluene-d8		97.7 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Bromofluorobenzene		89.6 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/29/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/29/20	EPA 8015D	
Surrogate: n-Nonane		91.3 %		50-200	2005012	01/27/20	01/29/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		109 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Toluene-d8		97.7 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Bromofluorobenzene		89.6 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	Reported: 01/30/20 13:41
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	

AH 4 @ 2'
P001076-13 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		111 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Toluene-d8		95.8 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Bromofluorobenzene		90.1 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/29/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/29/20	EPA 8015D	
Surrogate: n-Nonane		92.8 %		50-200	2005012	01/27/20	01/29/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		111 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Toluene-d8		95.8 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Bromofluorobenzene		90.1 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

AH 4 @ 4'
P001076-14 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		109 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Toluene-d8		96.2 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	
Surrogate: Bromofluorobenzene		89.9 %		70-130	2005016	01/28/20	01/29/20	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2005012	01/27/20	01/29/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2005012	01/27/20	01/29/20	EPA 8015D	
Surrogate: n-Nonane		86.9 %		50-200	2005012	01/27/20	01/29/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		109 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Toluene-d8		96.2 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	
Surrogate: Bromofluorobenzene		89.9 %		70-130	2005016	01/28/20	01/29/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2005019	01/28/20	01/29/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

Volatile Organic Compounds by 8260 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005016 - Purge and Trap EPA 5030A

Blank (2005016-BLK1)

Prepared & Analyzed: 01/28/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 1,2-Dichloroethane-d4	0.546		"	0.500		109	70-130			
Surrogate: Toluene-d8	0.485		"	0.500		97.0	70-130			
Surrogate: Bromofluorobenzene	0.442		"	0.500		88.3	70-130			

LCS (2005016-BS1)

Prepared & Analyzed: 01/28/20 1

Benzene	2.54	0.0250	mg/kg	2.50		102	70-130			
Toluene	2.43	0.0250	"	2.50		97.4	70-130			
Ethylbenzene	2.40	0.0250	"	2.50		96.1	70-130			
p,m-Xylene	5.00	0.0500	"	5.00		100	70-130			
o-Xylene	2.38	0.0250	"	2.50		95.1	70-130			
Total Xylenes	7.38	0.0250	"	7.50		98.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.532		"	0.500		106	70-130			
Surrogate: Toluene-d8	0.507		"	0.500		101	70-130			
Surrogate: Bromofluorobenzene	0.482		"	0.500		96.4	70-130			

Matrix Spike (2005016-MS1)

Source: P001076-01

Prepared & Analyzed: 01/28/20 1

Benzene	2.30	0.0250	mg/kg	2.50	ND	92.2	48-131			
Toluene	2.17	0.0250	"	2.50	ND	86.9	48-130			
Ethylbenzene	2.15	0.0250	"	2.50	ND	86.1	45-135			
p,m-Xylene	4.48	0.0500	"	5.00	ND	89.5	43-135			
o-Xylene	2.13	0.0250	"	2.50	ND	85.1	43-135			
Total Xylenes	6.60	0.0250	"	7.50	ND	88.0	43-135			
Surrogate: 1,2-Dichloroethane-d4	0.537		"	0.500		107	70-130			
Surrogate: Toluene-d8	0.497		"	0.500		99.3	70-130			
Surrogate: Bromofluorobenzene	0.475		"	0.500		95.0	70-130			

Matrix Spike Dup (2005016-MSD1)

Source: P001076-01

Prepared & Analyzed: 01/28/20 1

Benzene	2.46	0.0250	mg/kg	2.50	ND	98.6	48-131	6.69	23	
Toluene	2.33	0.0250	"	2.50	ND	93.1	48-130	6.98	24	
Ethylbenzene	2.31	0.0250	"	2.50	ND	92.2	45-135	6.84	27	
p,m-Xylene	4.78	0.0500	"	5.00	ND	95.5	43-135	6.47	27	
o-Xylene	2.28	0.0250	"	2.50	ND	91.0	43-135	6.75	27	
Total Xylenes	7.05	0.0250	"	7.50	ND	94.0	43-135	6.56	27	
Surrogate: 1,2-Dichloroethane-d4	0.533		"	0.500		107	70-130			
Surrogate: Toluene-d8	0.498		"	0.500		99.5	70-130			
Surrogate: Bromofluorobenzene	0.486		"	0.500		97.2	70-130			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005012 - DRO Extraction EPA 3570

Blank (2005012-BLK1)

Prepared: 01/27/20 1 Analyzed: 01/29/20 0

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	54.6		"	50.0		109	50-200			

LCS (2005012-BS1)

Prepared: 01/27/20 1 Analyzed: 01/29/20 0

Diesel Range Organics (C10-C28)	443	25.0	mg/kg	500		88.7	38-132			
Surrogate: n-Nonane	47.2		"	50.0		94.4	50-200			

Matrix Spike (2005012-MS1)

Source: P001075-03

Prepared: 01/27/20 1 Analyzed: 01/28/20 1

Diesel Range Organics (C10-C28)	481	25.0	mg/kg	500	ND	96.1	38-132			
Surrogate: n-Nonane	48.9		"	50.0		97.7	50-200			

Matrix Spike Dup (2005012-MSD1)

Source: P001075-03

Prepared: 01/27/20 1 Analyzed: 01/28/20 1

Diesel Range Organics (C10-C28)	464	25.0	mg/kg	500	ND	92.8	38-132	3.50	20	
Surrogate: n-Nonane	47.8		"	50.0		95.5	50-200			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	Reported: 01/30/20 13:41
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005016 - Purge and Trap EPA 5030A

Blank (2005016-BLK1)

Prepared & Analyzed: 01/28/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	0.546		"	0.500		109	70-130			
Surrogate: Toluene-d8	0.485		"	0.500		97.0	70-130			
Surrogate: Bromofluorobenzene	0.442		"	0.500		88.3	70-130			

LCS (2005016-BS2)

Prepared & Analyzed: 01/28/20 1

Gasoline Range Organics (C6-C10)	46.1	20.0	mg/kg	50.0		92.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.537		"	0.500		107	70-130			
Surrogate: Toluene-d8	0.506		"	0.500		101	70-130			
Surrogate: Bromofluorobenzene	0.465		"	0.500		92.9	70-130			

Matrix Spike (2005016-MS2)

Source: P001076-01

Prepared & Analyzed: 01/28/20 1

Gasoline Range Organics (C6-C10)	43.4	20.0	mg/kg	50.0	ND	86.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.528		"	0.500		106	70-130			
Surrogate: Toluene-d8	0.497		"	0.500		99.3	70-130			
Surrogate: Bromofluorobenzene	0.466		"	0.500		93.2	70-130			

Matrix Spike Dup (2005016-MSD2)

Source: P001076-01

Prepared & Analyzed: 01/28/20 1

Gasoline Range Organics (C6-C10)	44.6	20.0	mg/kg	50.0	ND	89.2	70-130	2.61	20	
Surrogate: 1,2-Dichloroethane-d4	0.501		"	0.500		100	70-130			
Surrogate: Toluene-d8	0.503		"	0.500		101	70-130			
Surrogate: Bromofluorobenzene	0.472		"	0.500		94.4	70-130			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Joseph Hernandez	01/30/20 13:41

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2005019 - Anion Extraction EPA 300.0/9056A**Blank (2005019-BLK1)**

Prepared & Analyzed: 01/28/20 1

Chloride ND 20.0 mg/kg

LCS (2005019-BS1)

Prepared & Analyzed: 01/28/20 1

Chloride 254 20.0 mg/kg 250 102 90-110

Matrix Spike (2005019-MS1)**Source: P001076-01**

Prepared & Analyzed: 01/28/20 1

Chloride 1600 100 mg/kg 250 1360 96.3 80-120

Matrix Spike Dup (2005019-MSD1)**Source: P001076-01**

Prepared & Analyzed: 01/28/20 1

Chloride 1620 100 mg/kg 250 1360 104 80-120 1.26 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.

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WPX (Carlsbad) 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: RDU 12 (2RP-4095) Project Number: 04108-0639 Project Manager: Joseph Hernandez	Reported: 01/30/20 13:41
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Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

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

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Project Information		Chain of Custody		Page 1 of 2	
Client: <u>WPX</u>		Report Attention		Lab Use Only	
Project: <u>RDU 12 (2RP-4095)</u>		Report due by: <u>Standard T/A</u>		TAT	
Project Manager: <u>Joseph Hernandez</u>		Attention:		EPA Program	
Address: <u>P.O. Box 62228</u>		Address:		1D 3D RCRA CWA SDWA	
City, State, Zip		City, State, Zip		Analysis and Method	
Phone:		Phone:		State	
Email: <u>Lynda @ WPX</u>		Email: <u>joseph@etechemr.com</u>		NM CO UT A	

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	NM	Remarks
1:45 pm	1-22-20	S	1	TT 1 @ 2'	1							X		
2:20 pm	1-22-20		1	TT 1 @ 12'	2									
10:45 am	1-23-20		1	TT 2 @ 2'	3									
10:50 am	1-23-20		1	TT 2 @ 4'	4									
11:15 am			1	TT 3 @ 2'	5									
11:20 am			1	TT 3 @ 4'	6									
12:00 pm			1	AH 1 @ 2'	7									
12:05 pm			1	AH 1 @ 4'	8									
12:10 pm			1	AH 2 @ 2'	9									
12:15 pm			1	AH 2 @ 4'	10									

Additional Instructions:

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

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
<u>[Signature]</u>	1-23-20	4:10 pm	<u>[Signature]</u>	1-23-2020	1610	Received on ice: <u>(Y)</u> / N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3
<u>[Signature]</u>	1-24-2020	1915	<u>Raine Lopez</u>	1/24/20	19:30	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.



5796 US Highway 64, Farmington, NM 87401

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Analytical Report

Report Summary

Client: WPX (Carlsbad)

Samples Received: 2/27/2020

Job Number: 04108-0639

Work Order: P002090

Project Name/Location: RDU 12 (2RP-4095)

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light blue rectangular background.

Date: 2/28/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc. attests the data reported has not been altered in any way.
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Envirotech, Inc. holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc. holds the Texas TNI certification T104704557-19-2 for the data reported.



WPX (Carlsbad)
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDU 12 (2RP-4095)
Project Number: 04108-0639
Project Manager: Lynda Laumbach

Reported:
02/28/20 13:35

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
AH5 @ 2'	P002090-01A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH5 @ 4'	P002090-02A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH6 @ 2'	P002090-03A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH6 @ 4'	P002090-04A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH7 @ 2'	P002090-05A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.
AH7 @ 4'	P002090-06A	Soil	02/25/20	02/27/20	Glass Jar, 4 oz.

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

AH5 @ 2'
P002090-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		90.6 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.6 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	Reported: 02/28/20 13:35
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

AH5 @ 4'
P002090-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		91.7 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.5 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	178	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

AH6 @ 2'
P002090-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		94.7 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.0 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	173	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

AH6 @ 4'
P002090-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		95.4 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.8 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	155	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

AH7 @ 2'
P002090-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		87.3 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		85.6 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	212	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

AH7 @ 4'
P002090-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2009030	02/27/20	02/27/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2009029	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		93.5 %		50-200	2009029	02/27/20	02/27/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2009030	02/27/20	02/27/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		85.0 %		50-150	2009030	02/27/20	02/27/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	142	100	mg/kg	5	2009031	02/27/20	02/27/20	EPA 300.0/9056A	
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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	Reported: 02/28/20 13:35
5315 Buena Vista Dr	Project Number:	04108-0639	
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	

Volatile Organics by EPA 8021 - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009030 - Purge and Trap EPA 5030A**Blank (2009030-BLK1)**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 8.34 " 8.00 104 50-150

LCS (2009030-BS1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	4.94	0.0250	mg/kg	5.00		98.7	70-130			
Toluene	4.94	0.0250	"	5.00		98.8	70-130			
Ethylbenzene	4.93	0.0250	"	5.00		98.6	70-130			
p,m-Xylene	9.84	0.0500	"	10.0		98.4	70-130			
o-Xylene	4.93	0.0250	"	5.00		98.6	70-130			
Total Xylenes	14.8	0.0250	"	15.0		98.5	0-200			

Surrogate: 4-Bromochlorobenzene-PID 8.42 " 8.00 105 50-150

Matrix Spike (2009030-MS1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	4.96	0.0250	mg/kg	5.00	ND	99.1	54.3-133			
Toluene	4.96	0.0250	"	5.00	ND	99.2	61.4-130			
Ethylbenzene	4.96	0.0250	"	5.00	ND	99.1	61.4-133			
p,m-Xylene	9.90	0.0500	"	10.0	ND	99.0	63.3-131			
o-Xylene	4.96	0.0250	"	5.00	ND	99.3	63.3-131			
Total Xylenes	14.9	0.0250	"	15.0	ND	99.1	0-200			

Surrogate: 4-Bromochlorobenzene-PID 8.40 " 8.00 105 50-150

Matrix Spike Dup (2009030-MSD1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Benzene	5.11	0.0250	mg/kg	5.00	ND	102	54.3-133	3.13	20	
Toluene	5.09	0.0250	"	5.00	ND	102	61.4-130	2.55	20	
Ethylbenzene	5.07	0.0250	"	5.00	ND	101	61.4-133	2.31	20	
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131	2.15	20	
o-Xylene	5.07	0.0250	"	5.00	ND	101	63.3-131	2.20	20	
Total Xylenes	15.2	0.0250	"	15.0	ND	101	0-200	2.17	200	

Surrogate: 4-Bromochlorobenzene-PID 8.44 " 8.00 105 50-150

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009029 - DRO Extraction EPA 3570

Blank (2009029-BLK1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	46.1		"	50.0		92.2	50-200			

LCS (2009029-BS1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	453	25.0	mg/kg	500		90.6	38-132			
Surrogate: n-Nonane	47.5		"	50.0		95.0	50-200			

Matrix Spike (2009029-MS1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	462	25.0	mg/kg	500	ND	92.4	38-132			
Surrogate: n-Nonane	48.3		"	50.0		96.5	50-200			

Matrix Spike Dup (2009029-MSD1)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Diesel Range Organics (C10-C28)	466	25.0	mg/kg	500	ND	93.2	38-132	0.836	20	
Surrogate: n-Nonane	48.6		"	50.0		97.2	50-200			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009030 - Purge and Trap EPA 5030A

Blank (2009030-BLK1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		"	8.00		94.1	50-150			

LCS (2009030-BS2)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	46.6	20.0	mg/kg	50.0		93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		"	8.00		93.1	50-150			

Matrix Spike (2009030-MS2)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	46.4	20.0	mg/kg	50.0	ND	92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		"	8.00		94.2	50-150			

Matrix Spike Dup (2009030-MSD2)

Source: P002090-01

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Gasoline Range Organics (C6-C10)	47.5	20.0	mg/kg	50.0	ND	94.9	70-130	2.15	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		"	8.00		92.4	50-150			

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WPX (Carlsbad)	Project Name:	RDU 12 (2RP-4095)	
5315 Buena Vista Dr	Project Number:	04108-0639	Reported:
Carlsbad NM, 88220	Project Manager:	Lynda Laumbach	02/28/20 13:35

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2009031 - Anion Extraction EPA 300.0/9056A**Blank (2009031-BLK1)**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	ND	20.0	mg/kg							
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LCS (2009031-BS1)

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	263	20.0	mg/kg	250		105	90-110			
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Matrix Spike (2009031-MS1)**Source: P002090-01**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	331	100	mg/kg	250	ND	132	80-120			M1
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Matrix Spike Dup (2009031-MSD1)**Source: P002090-01**

Prepared: 02/27/20 0 Analyzed: 02/27/20 1

Chloride	324	100	mg/kg	250	ND	130	80-120	2.05	20	M1
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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.

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WPX (Carlsbad)
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: RDU 12 (2RP-4095)
Project Number: 04108-0639
Project Manager: Lynda Laumbach

Reported:
02/28/20 13:35

Notes and Definitions

M1 Matrix spike recovery was above acceptance 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

** Methods marked with ** are non-accredited methods.

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

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Project Information

Chain of Custody

Page 1 of 1

Client: <u>WPX</u>				Report Attention				Lab Use Only				TAT		EPA Program				
Project: <u>ADU 12 (2RP-4095)</u>				Report due by:				Lab WO# <u>P002090</u>		Job Number <u>04108-0639</u>		1D	3D	RCRA	CWA	SD		
Project Manager:				Attention:				Analysis and Method								State		
Address:				Address:				DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC-NM	TCEQ 1005	BGDOC - NM	BGDOC - TX		
City, State, Zip				City, State, Zip														
Phone:				Phone:														
Email: <u>Lynda @ WPX</u>				Email: <u>joseph@etechenv.com</u>														
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	Remarks												
2:00pm	2-25-20	S	1	AH 5 @ 2'	1													
2:15pm		S	1	AH 5 @ 4'	2													
2:30pm		S	1	AH 6 @ 2'	3													
2:45pm		S	1	AH 6 @ 4'	4													
3:00pm		S	1	AH 7 @ 2'	5													
3:15pm		S	1	AH 7 @ 4'	6													

Additional Instructions:

* 24 hr TAT

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

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <u>Y</u> / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
<u>[Signature]</u>	2-25-20	5:15pm	<u>[Signature]</u>	2-25-20	1715	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<u>[Signature]</u>	2-26-2020	1325	<u>Raina Lopez</u>	2/27/20	9:30	

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.

Appendix D

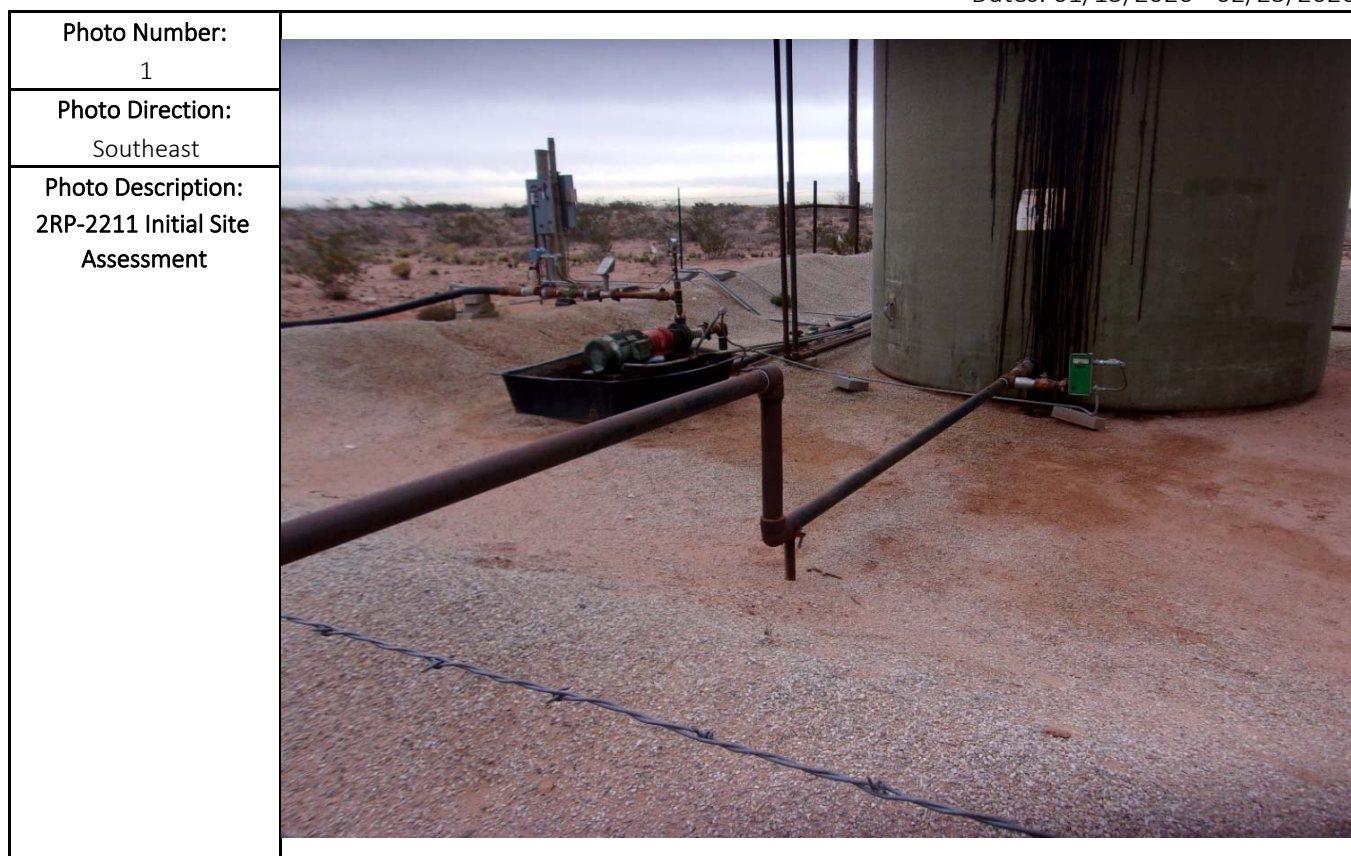
Photographic Log

Site Name: RDU 12

Photographic Log

Client: WPX Energy, Inc.

Dates: 01/15/2020 - 02/25/2020

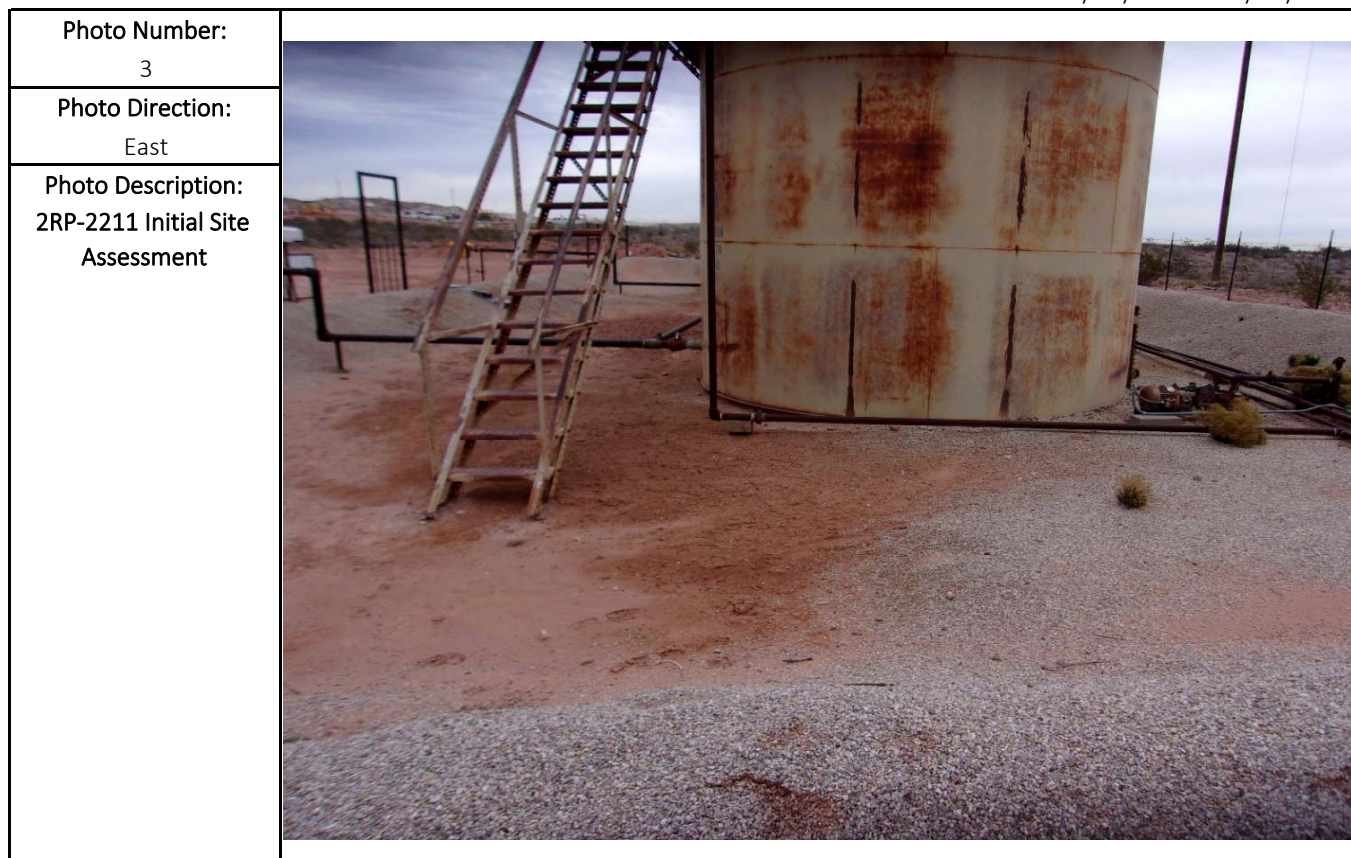


Site Name: RDU 12

Photographic Log

Client: WPX Energy, Inc.

Dates: 01/15/2020 - 02/25/2020

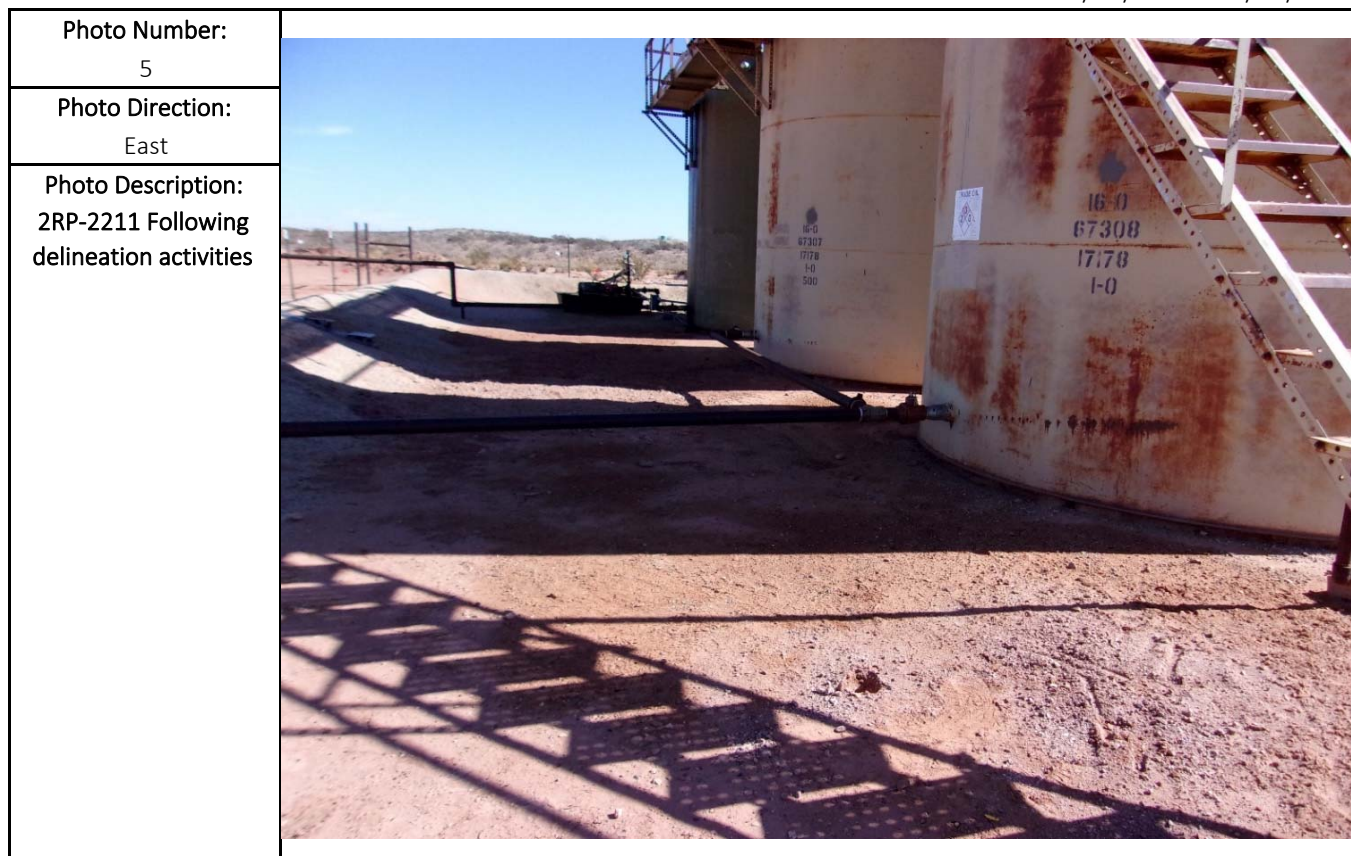


Site Name: RDU 12

Photographic Log

Client: WPX Energy, Inc.

Dates: 01/15/2020 - 02/25/2020



Site Name: RDU 12

Photographic Log

Client: WPX Energy, Inc.

Dates: 01/15/2020 - 02/25/2020

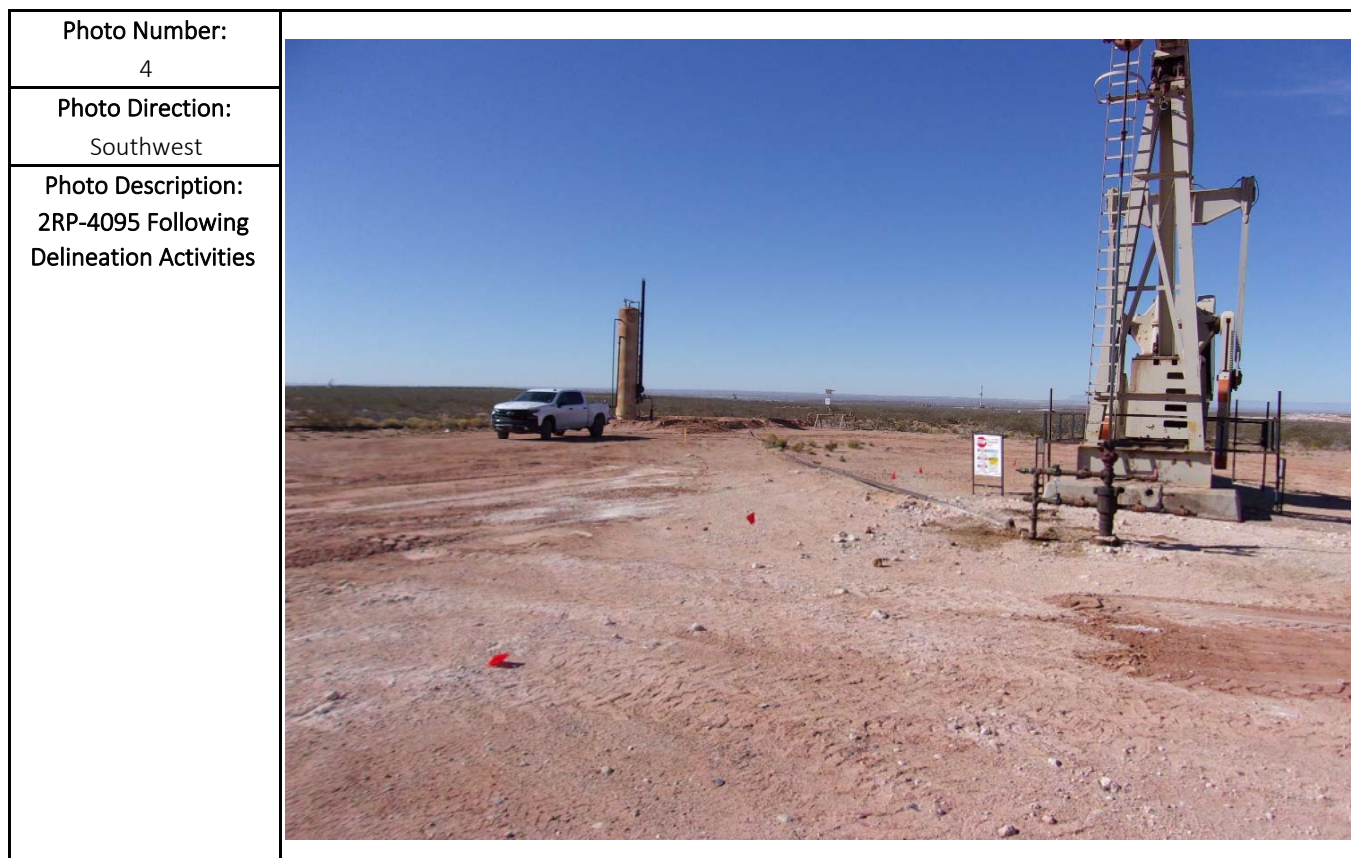
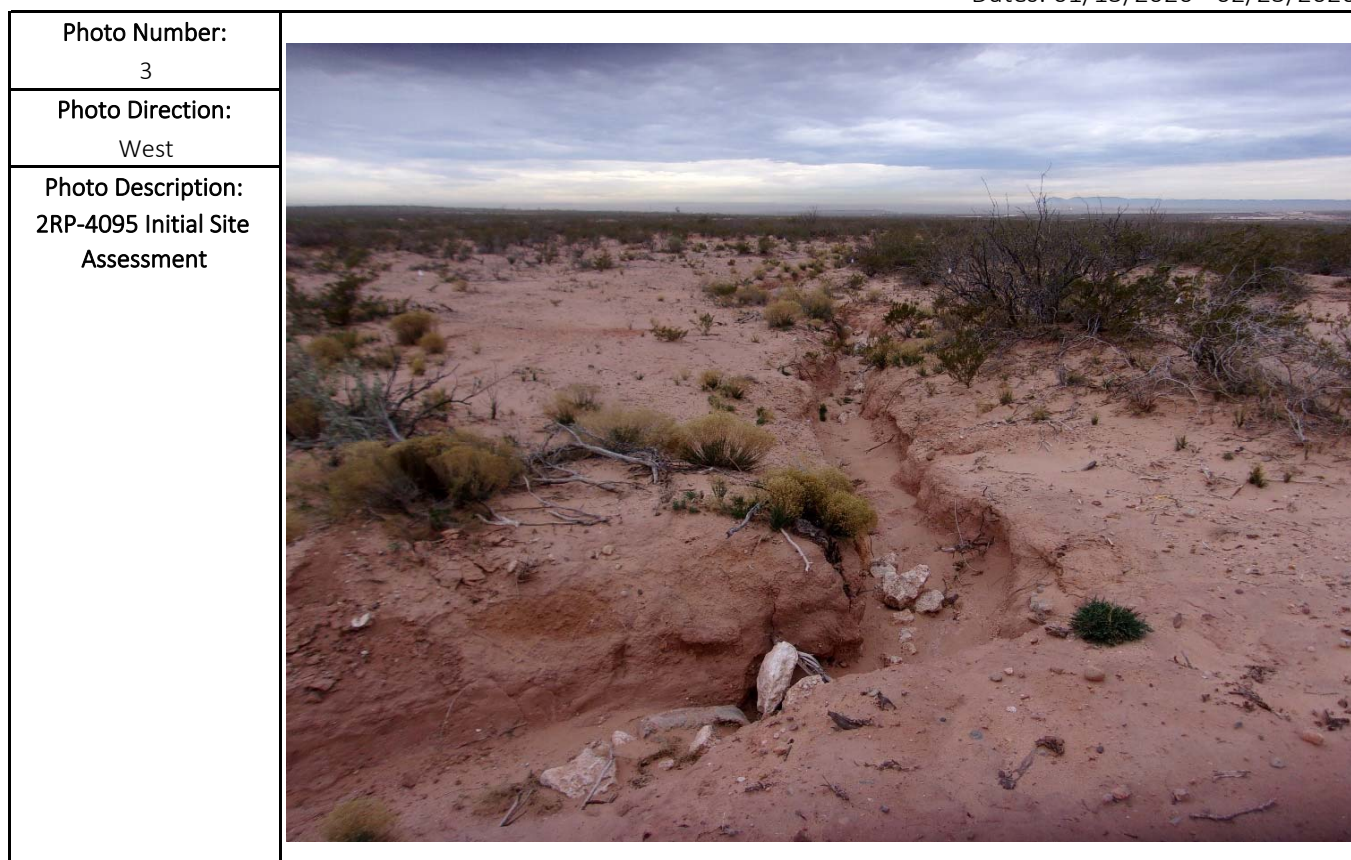


Site Name: RDU 12

Photographic Log

Client: WPX Energy, Inc.

Dates: 01/15/2020 - 02/25/2020

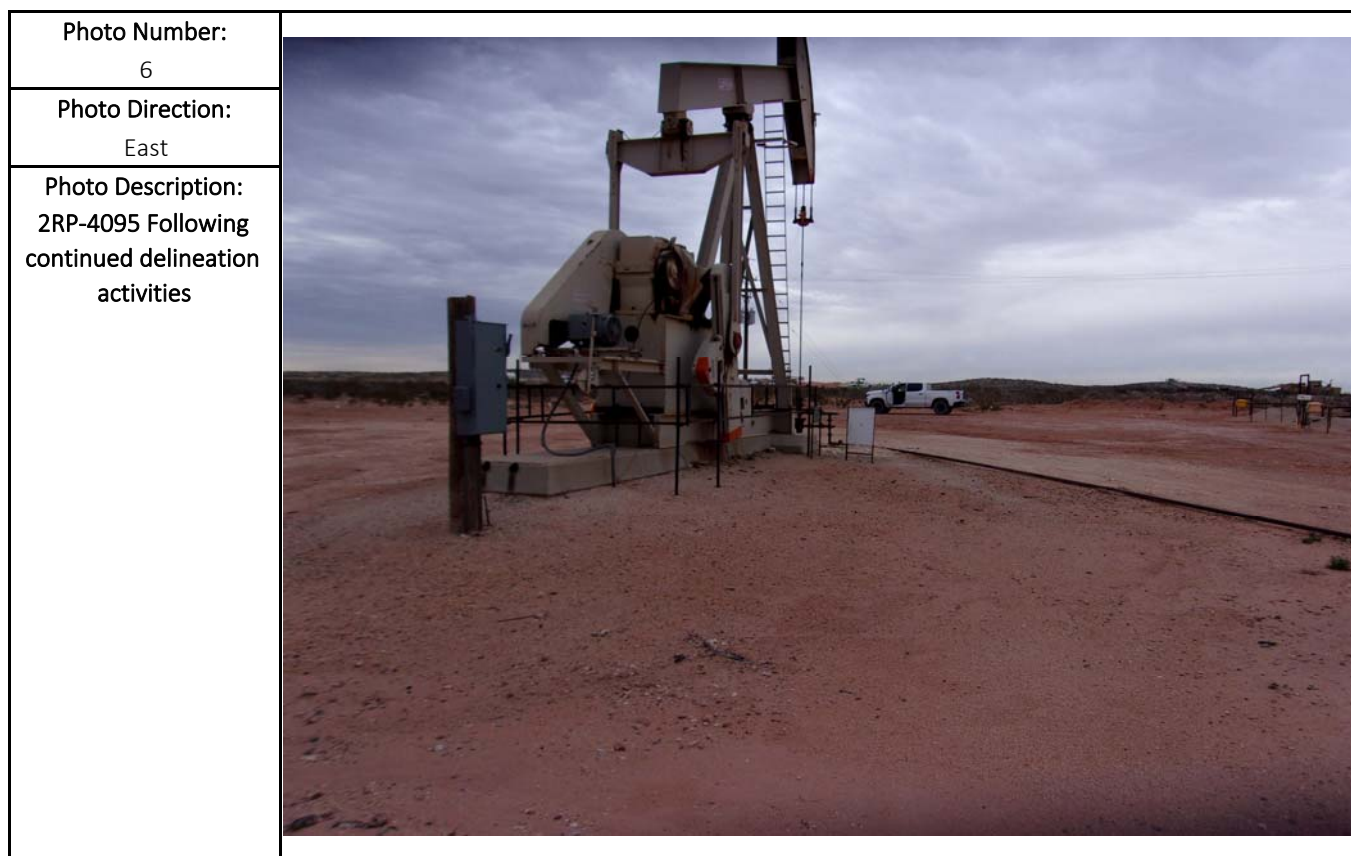
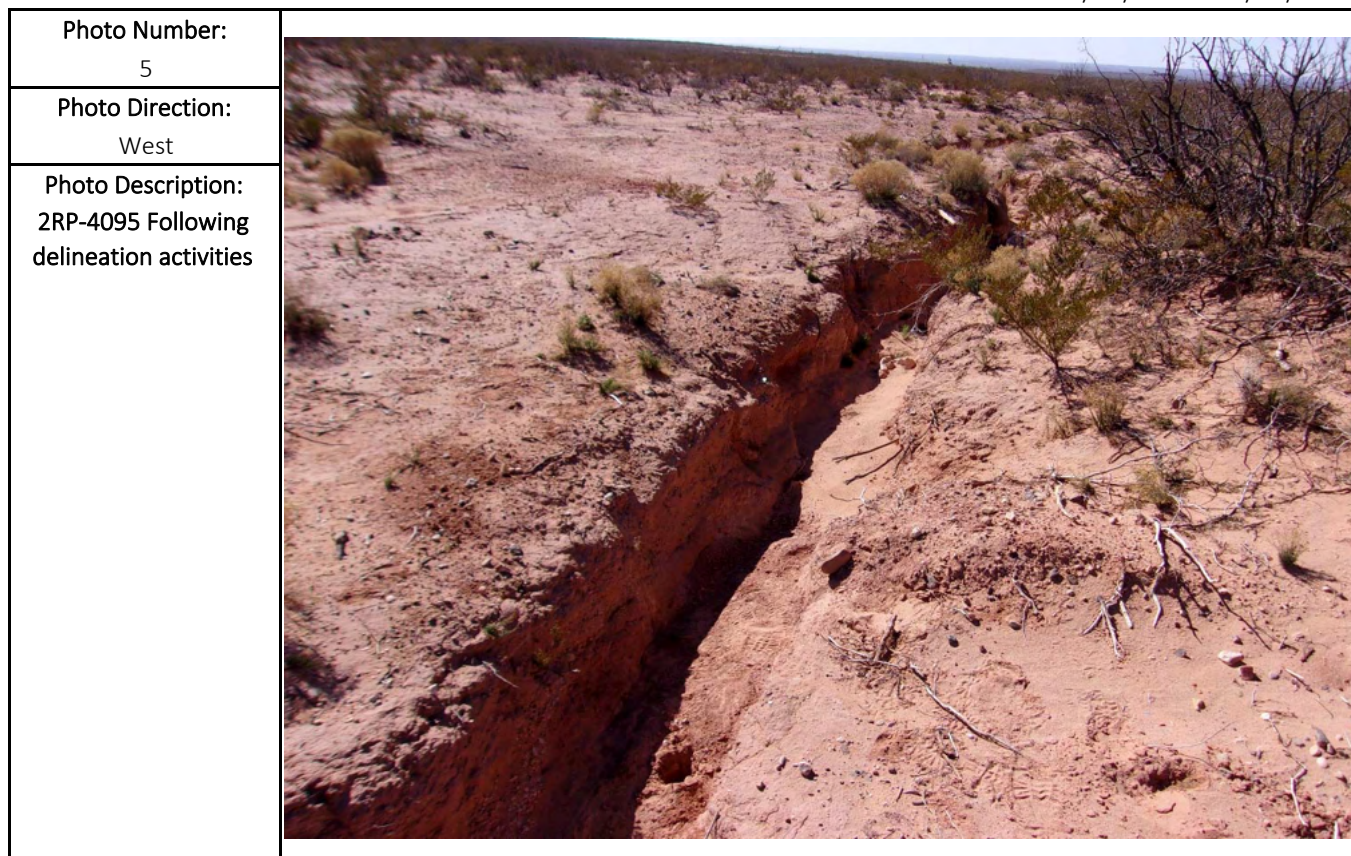


Site Name: RDU 12

Photographic Log

Client: WPX Energy, Inc.

Dates: 01/15/2020 - 02/25/2020



District I
1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 261713

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 261713
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	None	9/6/2023