

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	nAPP2108361251
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.320088 Longitude -103.8594
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDU 61	Site Type: Production Facility
Date Release Discovered: 03/24/2021	API# (if applicable): 30-015-41980

Unit Letter	Section	Township	Range	County
P	27	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	Volume Released (bbls): 1	Volume Recovered (bbls): 0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 4	Volume Recovered (bbls): 2
	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:

Polish rod liner loosened and caused ~5bbl mixed fluids to be released around the wellhead. No fluids left the pad surface.

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


State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Lynda Laumbach</u>	Title: <u>Environmental Specialist</u>
Signature: <u></u>	Date: <u>04/07/2021</u>
email: <u>Lynda.Laumbach@wpenergy.com</u>	Telephone: <u>(575)725-1647</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>4/29/2021</u>

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

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

CONDITIONS

Action 23301

CONDITIONS OF APPROVAL

Operator: WPX ENERGY PERMIAN, LLC Devon Energy - Regulatory 333West Sheridan Ave. Oklahoma City, OK73102		OGRID: 246289	Action Number: 23301	Action Type: C-141
OCD Reviewer	Condition			
rmarcus	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141			

Incident ID	nAPP2108361251
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Site Assessment/Characterization

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

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

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

Printed Name: _____ Jim Raley _____

Title: _____ Environmental Professional _____

Signature: _____

Date: _____ 02/14/2022 _____

email: _____ jim.raley@dvn.com _____

Telephone: _____ 575-689-7597 _____

OCD Only

Received by: _____

Date: _____

Incident ID	nAPP2108361251
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: _____ *Jim Raley* _____ Date: _____ 02/14/2022 _____
Email: _____ jim.raley@dvn.com _____ Telephone: _____ 575-689-7597 _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature: _____ *Jennifer Nobui* _____ Date: _____ 03/30/2022 _____



WSP USA

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

February 21, 2022

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

**RE: Addendum Deferral Request
Ross Draw Unit 61
Incident Number NAPP2108361251
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of WPX Energy Permian, LLC. (WPX), presents the following Addendum Deferral Request to the original Closure Request submitted on June 10, 2021. This Addendum provides a Deferral Request for the subject release that occurred at the Ross Draw Unit 61 (Site) located in Unit P, Section 27, Township 26 South, Range 30 East, in Eddy County, New Mexico. WPX is submitting this Addendum Deferral Request describing estimated soil volume to be left in place based on current Site conditions and requesting deferral of final remediation for Incident Number NAPP2108361251 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On March 24, 2021, polish rod loosened and caused approximately 4 barrels (bbls) of produced water and 1 bbl of crude oil to be released onto the well pad immediately adjacent to the wellhead. Vacuum trucks were dispatched and recovered approximately 2 bbls of produced water. No crude oil was able to be recovered immediately. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Corrective Action Form C-141 (Form C -141) on April 7, 2021 that was subsequently assigned Incident Number NAPP2108361251.

The initial Closure Request detailed site characterization according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Based on the results of the Site Characterization, specifically the absence of any nearby sensitive receptors and estimated depth to groundwater to be greater than 101 feet below ground surface (bgs), the following Closure Criteria were applied:



WSP USA

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Building 1, Unit 222
Midland, Texas 79705
432.704.5178

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

Between Marcy 25 and June 1, 2021, WPX completed initial site assessment, delineation, excavation, and confirmation sampling activities. Approximately 100 cubic yards of impacted soil were excavated and transported to a permitted landfarm. The excavation extent was approximately 1,990 square feet around the wellhead and extended to approximately 2 feet bgs (Figure 02). Chloride was detected in soil immediately adjacent to the wellhead at a concentration that exceeded the Closure Criteria; however, the removal of the limited residual chloride impacts (approximately 6 cubic yards) was not possible due to the proximity of the active wellhead and concerns for worker safety. WPX believed this was still protective of human health, the environment, and groundwater and as such, presented the NMOCD with a Closure Request on June 9, 2021.

NMOCD denied the Closure Request (September 9, 2021, C-141 Application) for Incident Number NAPP2108361251 for the following reason:

- *The OCD will not close a release, where contaminants are left in place, due to close proximity to equipment. Sample point SW02 will require a formal deferral request if you are looking to complete remediation during any future major well pad construction/alteration or final plugging and abandonment, whichever occurs first. Also, specify exactly which sample points you are asking for a deferral on and the reason the contaminants can't be removed.*

ADDENDUM RESPONSE

The following section of this report describes the Deferral Request based on sampling activities and laboratory analytical data.

Based on laboratory analytical data, an estimated 6 cubic yards of impacted soil remains in place in the vicinity of sidewall confirmation sample SW02, assuming a maximum 2-foot depth and lateral distance from delineation soil samples DS05 and DS06. The summary table is provided as Table 1 and analytical reports are provided as Attachment 1.



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Building 1, Unit 222
Midland, Texas 79705
432.704.5178

DEFERRAL REQUEST

Based on the data collected from the final delineation soil samples, WPX requests to defer the remaining residual soil impacts in the vicinity of the wellhead, specifically on the eastern side as documented by sidewall confirmation sample SW02, for the following reasons:

- *Impacts have been removed to the maximum extent practicable (MEP) to limit future vertical migration and human exposure upon future Site visits. The remaining residual impacts within the subject area release lay on the well pad in close proximity and surrounding the wellhead.*
- *Depth to groundwater is estimated to be greater than 101 feet bgs based on the nearest well data and regional depth to water determination, and no other sensitive receptors are within the applicable ranges.*
- *Removal of impacted soil is not a practical means of remediation due to the location of the release and wellhead. Safety restrictions prevent the ability to remove all impacted soil associated with chloride exceedances. Based on the data indicating residual impacts are fully delineated, supportive evidence that any remaining chloride concentrations are not harmful to public health, environment, or groundwater based on the shallow nature of identified impacts.*
- *WPX requests to defer approximately 6 cubic yards of impacted soil associated with Incident Number NAPP2108361251 in an effort to forbear from disturbing impacted soil around the wellhead, which may also compromise the safety of field personnel during active operations.*

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

Sincerely,

WSP USA

A handwritten signature in black ink, appearing to read 'Joseph S. Hernandez'.

Joseph S. Hernandez
Consultant, Geologist

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

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



WSP USA

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

cc: Jim Raley, Devon Energy Corporation
United States Bureau of Land Management
NMOCD

Attachments

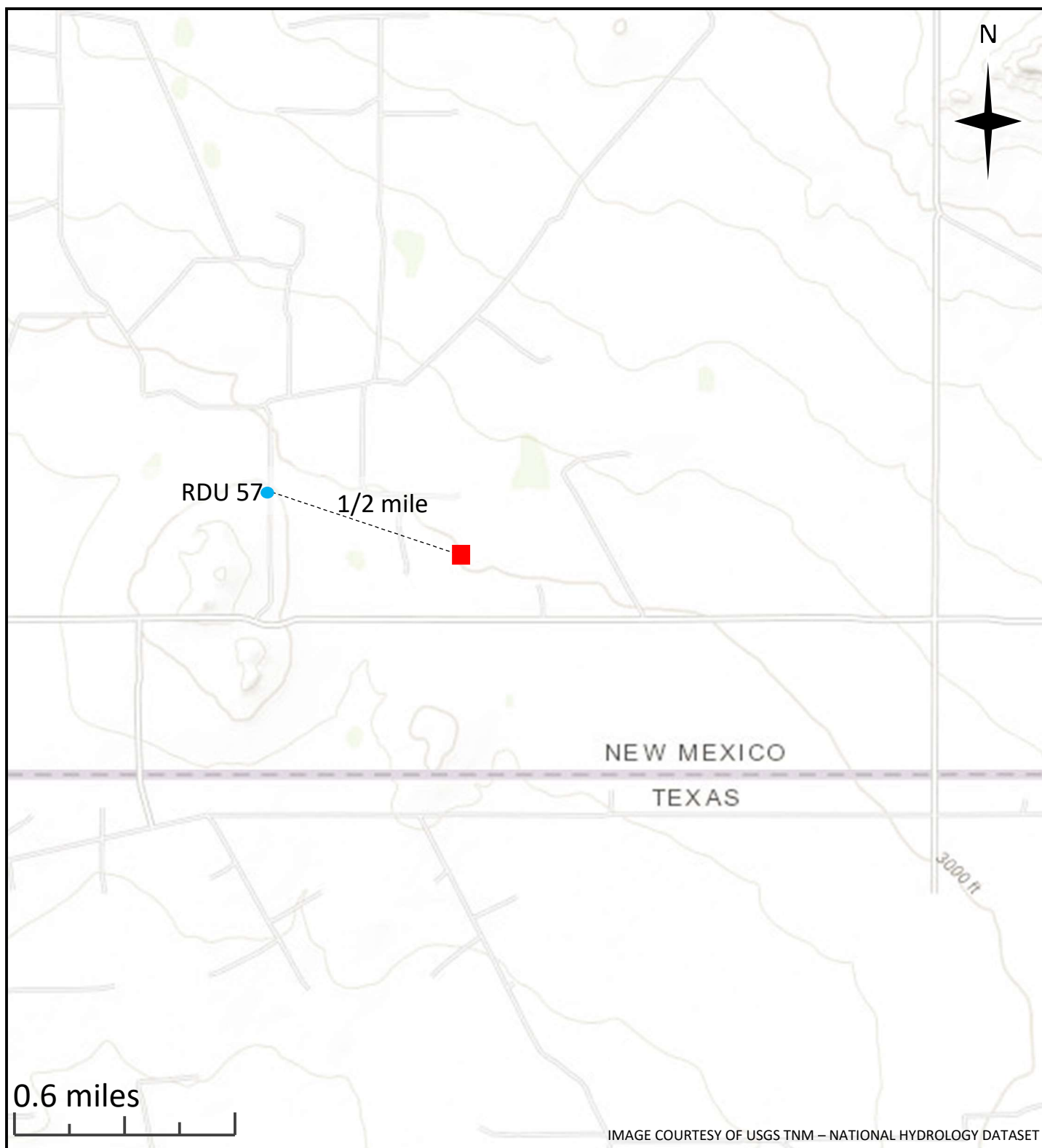
Figure 01 – WPX Site Map

Figure 02 – WPX Excavation Extent Map

Table – Summary Table 1

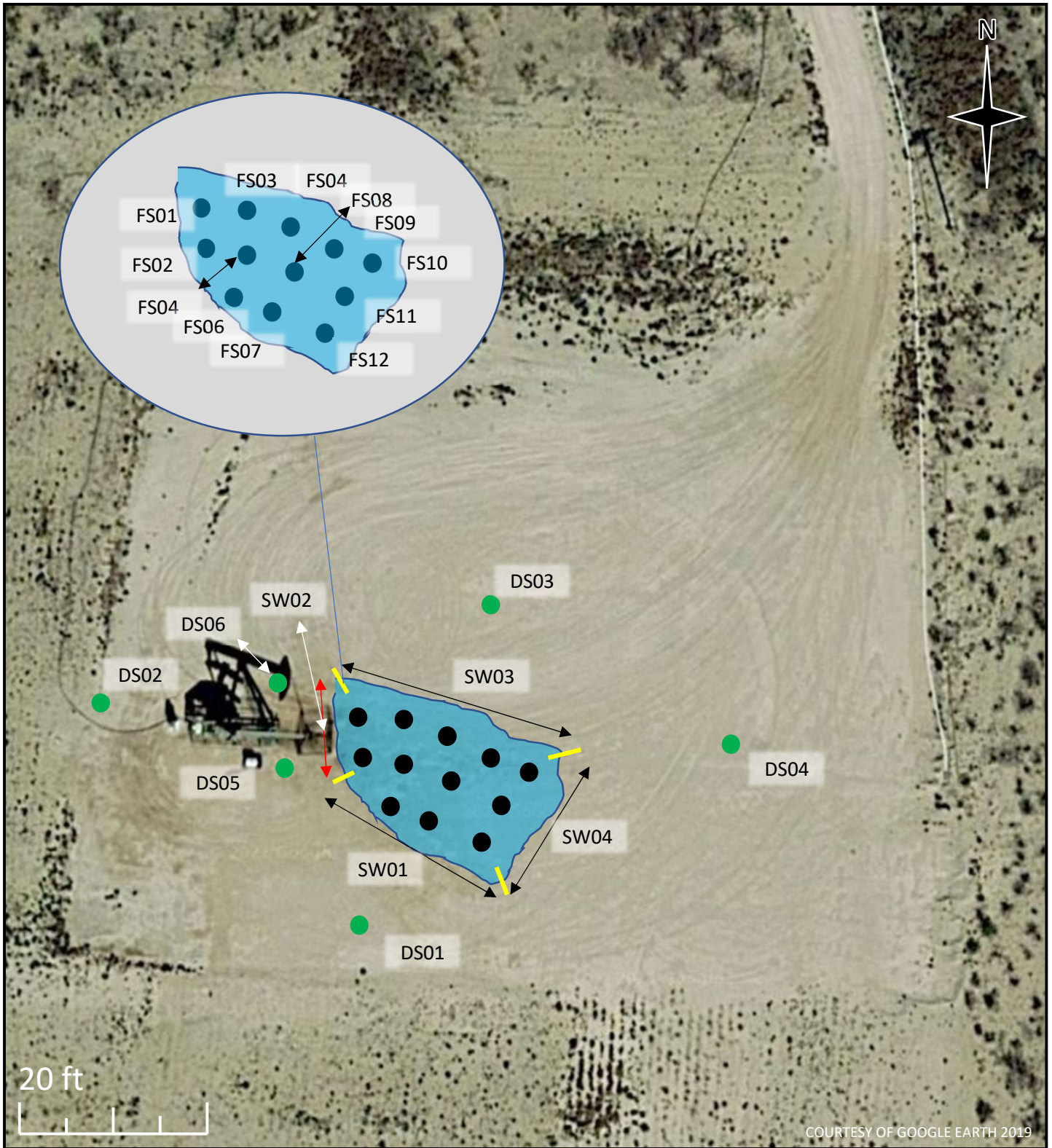
Attachment 1 – Laboratory Analytical Reports

FIGURES

**Legend**

- WPX Wells (DTW determination)
- Site Location

Figure 01
Ross Draw Unit #061H
30-015-41980
Permian Basin, Eddy County, NM
32.00875, -103.862833



Legend


 Excavation Extent

Figure 02
Ross Draw Unit #061H
30-015-41980
Permian Basin, Eddy County, NM
32.00875, -103.862833

TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

ROSS DRAW UNIT #061
NMOCD REFERENCE NUMBER: nAPP2108361251



Sample Name	Depth (ft bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS01	0.5	3/25/2021	<0.00198	0.0744	<49.8	75.9	<49.8	75.9	75.9	15800
SS02	0.5	3/25/2021	0.00271	0.0566	<50.1	<50.1	<50.1	-	-	25400
SS03	0.5	3/25/2021	0.00818	0.213	<50.0	70.5	<50.0	70.5	70.5	17000
SS04	0.5	3/25/2021	<0.00202	0.0346	<50.0	81.5	<50.0	81.5	81.5	2270
FS01	2	4/7/2021	<0.00199	0.00202	<49.9	495.0	269	764	764.0	4530
FS02	2	4/7/2021	<0.00200	-	<49.9	245.0	121	366.0	366.0	6410
FS03	2	4/7/2021	<0.00202	-	<49.8	<49.8	<49.8	-	-	6140
FS04	2	4/7/2021	<0.00200	-	50.3	70.1	<49.9	70.1	70.1	5870
FS05	2	4/7/2021	<0.00199	-	<49.9	91.4	<49.9	91.4	91.4	5620
FS06	2	4/7/2021	0.00289	-	<49.9	184.0	90.8	274.8	274.8	4160
FS07	2	4/7/2021	<0.00198	-	71.1	<50.0	<50.0	-	-	950
FS08	2	4/7/2021	<0.00202	-	528	<50.0	<50.0	-	-	823
FS09	4	4/7/2021	<0.00199	-	<49.9	<49.9	<49.9	-	-	3420
FS10	2	4/7/2021	<0.00200	-	<50.0	107	50.2	155.2	155.2	2910
FS11	2	4/7/2021	<0.00200	-	<49.9	<49.9	<49.9	-	-	790
FS12	2	4/7/2021	<0.00201	-	81.1	<49.8	<49.8	-	-	836
SW01	1	4/7/2021	<0.00200	-	58	66.5	<49.9	66.5	66.5	3000
SW02	1	4/7/2021	<0.00200	-	<50.0	56	<50.0	56	56	43000
SW03	1	4/7/2021	<0.0400	-	<50.0	<50.0	<50.0	-	-	1120
SW04	1	4/7/2021	<0.00199	-	<50.1	<50.1	<50.1	-	-	4540
NMOCD Table 1 Closure Criteria			10	50	NE	NE	NE	1,000	2,500	20,000

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

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
ROSS DRAW UNIT #061
NMOCD REFERENCE NUMBER: nAPP2108361251



Sample Name	Depth (ft bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
DS01	0.5	4/27/2021	<0.00202	-	<49.9	<49.9	<49.9	-	-	19
DS01A	1	4/27/2021	<0.00201	-	<49.9	<49.9	<49.9	-	-	224
DS02	0.5	4/27/2021	<0.00200	-	<49.8	<49.8	<49.8	-	-	164
DS02A	1	4/27/2021	<0.00200	-	<49.9	<49.9	<49.9	-	-	29.8
DS03	0.5	4/27/2021	<0.00200	-	<50.0	<50.0	<50.0	-	-	1370
DS03A	1	4/27/2021	<0.00202	-	<50.0	<50.0	<50.0	-	-	99.9
DS04	0.5	4/27/2021	<0.00199	-	<50.0	<50.0	<50.0	-	-	31.6
DS04A	1	4/27/2021	<0.00200	-	<49.9	<49.9	<49.9	-	-	22.8
DS05	1	6/1/2021	<0.00200	-	<49.8	<49.8	<49.8	-	-	2810
DS05A	2	6/1/2021	<0.00198	-	<49.8	<49.8	<49.8	-	-	483
DS06	1	6/1/2021	<0.00199	-	<50.0	<50.0	<50.0	-	-	208
DS06A	2	6/1/2021	<0.00198	-	<49.8	<49.8	<49.8	-	-	217
NMOCD Table 1 Closure Criteria			10	50	NE	NE	NE	1,000	2,500	20,000

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

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

ATTACHMENT 1 - LABORATORY ANALYTICAL REPORTS



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-436-1
Client Project/Site: RDU 61

For:

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

Attn: Lynda Laumbach

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

Authorized for release by:
4/5/2021 1:45:57 PM

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

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: WPX Energy Production LLC
Project/Site: RDU 61

Laboratory Job ID: 890-436-1

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Definitions/Glossary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

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Case Narrative

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Job ID: 890-436-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-436-1**

Receipt

The samples were received on 3/26/2021 8:03 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS01 (890-436-1), SS02 (890-436-2), SS03 (890-436-3) and SS04 (890-436-4).

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Client Sample ID: SS01

Lab Sample ID: 890-436-1

Date Collected: 03/25/21 10:10

Matrix: Solid

Date Received: 03/26/21 08:03

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/21 18:30	03/29/21 23:34	1
Toluene	0.0296		0.00198		mg/Kg		03/29/21 18:30	03/29/21 23:34	1
Ethylbenzene	0.00602		0.00198		mg/Kg		03/29/21 18:30	03/29/21 23:34	1
m-Xylene & p-Xylene	0.0275		0.00397		mg/Kg		03/29/21 18:30	03/29/21 23:34	1
o-Xylene	0.0113		0.00198		mg/Kg		03/29/21 18:30	03/29/21 23:34	1
Xylenes, Total	0.0388		0.00397		mg/Kg		03/29/21 18:30	03/29/21 23:34	1
Total BTEX	0.0744		0.00198		mg/Kg		03/29/21 18:30	03/29/21 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130	03/29/21 18:30	03/29/21 23:34	1
1,4-Difluorobenzene (Surr)	115		70 - 130	03/29/21 18:30	03/29/21 23:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/30/21 11:13	03/31/21 03:51	1
Diesel Range Organics (Over C10-C28)	75.9	B	49.8		mg/Kg		03/30/21 11:13	03/31/21 03:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/30/21 11:13	03/31/21 03:51	1
Total TPH	75.9	B	49.8		mg/Kg		03/30/21 11:13	03/31/21 03:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	03/30/21 11:13	03/31/21 03:51	1
o-Terphenyl	105		70 - 130	03/30/21 11:13	03/31/21 03:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15800		251		mg/Kg			04/02/21 19:09	50

Client Sample ID: SS02

Lab Sample ID: 890-436-2

Date Collected: 03/25/21 10:15

Matrix: Solid

Date Received: 03/26/21 08:03

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00271		0.00200		mg/Kg		03/29/21 18:30	03/29/21 23:55	1
Toluene	0.0165		0.00200		mg/Kg		03/29/21 18:30	03/29/21 23:55	1
Ethylbenzene	0.00642		0.00200		mg/Kg		03/29/21 18:30	03/29/21 23:55	1
m-Xylene & p-Xylene	0.0218		0.00401		mg/Kg		03/29/21 18:30	03/29/21 23:55	1
o-Xylene	0.00914		0.00200		mg/Kg		03/29/21 18:30	03/29/21 23:55	1
Xylenes, Total	0.0309		0.00401		mg/Kg		03/29/21 18:30	03/29/21 23:55	1
Total BTEX	0.0566		0.00200		mg/Kg		03/29/21 18:30	03/29/21 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130	03/29/21 18:30	03/29/21 23:55	1
1,4-Difluorobenzene (Surr)	117		70 - 130	03/29/21 18:30	03/29/21 23:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		03/30/21 11:13	03/31/21 04:13	1

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Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Client Sample ID: SS02

Lab Sample ID: 890-436-2

Date Collected: 03/25/21 10:15

Matrix: Solid

Date Received: 03/26/21 08:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		03/30/21 11:13	03/31/21 04:13	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		03/30/21 11:13	03/31/21 04:13	1
Total TPH	<50.1	U	50.1		mg/Kg		03/30/21 11:13	03/31/21 04:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				03/30/21 11:13	03/31/21 04:13	1
o-Terphenyl	116		70 - 130				03/30/21 11:13	03/31/21 04:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25400		249		mg/Kg			04/02/21 19:14	50

Client Sample ID: SS03

Lab Sample ID: 890-436-3

Date Collected: 03/25/21 10:20

Matrix: Solid

Date Received: 03/26/21 08:03

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00818		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
Toluene	0.0600		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
Ethylbenzene	0.0316		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
m-Xylene & p-Xylene	0.0826		0.00404		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
o-Xylene	0.0308		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
Xylenes, Total	0.113		0.00404		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
Total BTEX	0.213		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130				03/29/21 18:30	03/30/21 00:15	1
1,4-Difluorobenzene (Surr)	122		70 - 130				03/29/21 18:30	03/30/21 00:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:34	1
Diesel Range Organics (Over C10-C28)	70.5	B	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:34	1
Total TPH	70.5	B	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				03/30/21 11:13	03/31/21 04:34	1
o-Terphenyl	112		70 - 130				03/30/21 11:13	03/31/21 04:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17000		251		mg/Kg			04/04/21 15:14	50

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Client Sample ID: SS04

Lab Sample ID: 890-436-4

Date Collected: 03/25/21 10:25

Matrix: Solid

Date Received: 03/26/21 08:03

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:35	1
Toluene	0.0117		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:35	1
Ethylbenzene	0.00442		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:35	1
m-Xylene & p-Xylene	0.0129		0.00404		mg/Kg		03/29/21 18:30	03/30/21 00:35	1
o-Xylene	0.00555		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:35	1
Xylenes, Total	0.0185		0.00404		mg/Kg		03/29/21 18:30	03/30/21 00:35	1
Total BTEX	0.0346		0.00202		mg/Kg		03/29/21 18:30	03/30/21 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	03/29/21 18:30	03/30/21 00:35	1
1,4-Difluorobenzene (Surr)	114		70 - 130	03/29/21 18:30	03/30/21 00:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:55	1
Diesel Range Organics (Over C10-C28)	81.5	B	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:55	1
Total TPH	81.5	B	50.0		mg/Kg		03/30/21 11:13	03/31/21 04:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	03/30/21 11:13	03/31/21 04:55	1
o-Terphenyl	109		70 - 130	03/30/21 11:13	03/31/21 04:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2270		253		mg/Kg			04/04/21 15:29	50

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-436-1	SS01	135 S1+	115
890-436-2	SS02	138 S1+	117
890-436-3	SS03	141 S1+	122
890-436-4	SS04	129	114
LCS 880-1037/1-A	Lab Control Sample	97	101
LCSD 880-1037/2-A	Lab Control Sample Dup	101	104
MB 880-1037/5-A	Method Blank	99	102
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-436-1	SS01	103	105
890-436-2	SS02	108	116
890-436-3	SS03	101	112
890-436-4	SS04	98	109
LCS 880-1065/2-A	Lab Control Sample	99	100
LCSD 880-1065/3-A	Lab Control Sample Dup	100	108
MB 880-1065/1-A	Method Blank	109	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1037/5-A

Matrix: Solid

Analysis Batch: 1038

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1037

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/21 18:30	03/29/21 21:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/21 18:30	03/29/21 21:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/21 18:30	03/29/21 21:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/21 18:30	03/29/21 21:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/21 18:30	03/29/21 21:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/29/21 18:30	03/29/21 21:51	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/29/21 18:30	03/29/21 21:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	03/29/21 18:30	03/29/21 21:51	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/29/21 18:30	03/29/21 21:51	1

Lab Sample ID: LCS 880-1037/1-A

Matrix: Solid

Analysis Batch: 1038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07967		mg/Kg		80	70 - 130
Toluene	0.100	0.07787		mg/Kg		78	70 - 130
Ethylbenzene	0.100	0.08067		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	0.200	0.1593		mg/Kg		80	70 - 130
o-Xylene	0.100	0.08008		mg/Kg		80	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-1037/2-A

Matrix: Solid

Analysis Batch: 1038

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1037

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08930		mg/Kg		89	70 - 130	11	35
Toluene	0.100	0.08493		mg/Kg		85	70 - 130	9	35
Ethylbenzene	0.100	0.08741		mg/Kg		87	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1739		mg/Kg		87	70 - 130	9	35
o-Xylene	0.100	0.08945		mg/Kg		89	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

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

Lab Sample ID: MB 880-1065/1-A

Matrix: Solid

Analysis Batch: 1054

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1065

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1196		50.0		mg/Kg		03/30/21 11:13	03/30/21 20:46	1
Diesel Range Organics (Over C10-C28)	1130		50.0		mg/Kg		03/30/21 11:13	03/30/21 20:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/30/21 11:13	03/30/21 20:46	1
Total TPH	2326		50.0		mg/Kg		03/30/21 11:13	03/30/21 20:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	03/30/21 11:13	03/30/21 20:46	1
o-Terphenyl	116		70 - 130	03/30/21 11:13	03/30/21 20:46	1

Lab Sample ID: LCS 880-1065/2-A

Matrix: Solid

Analysis Batch: 1054

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1065

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	995.8		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	926.0		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-1065/3-A

Matrix: Solid

Analysis Batch: 1054

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1065

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	980.5		mg/Kg		98	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	983.9		mg/Kg		98	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	108		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1232/1-A

Matrix: Solid

Analysis Batch: 1263

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/02/21 18:36	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1232/2-A

Matrix: Solid

Analysis Batch: 1263

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	272.0		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-1232/3-A

Matrix: Solid

Analysis Batch: 1263

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	272.8		mg/Kg		109	90 - 110	0	20

Lab Sample ID: MB 880-1058/1-A

Matrix: Solid

Analysis Batch: 1307

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/04/21 14:59	1

Lab Sample ID: LCS 880-1058/2-A

Matrix: Solid

Analysis Batch: 1307

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.9		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-1058/3-A

Matrix: Solid

Analysis Batch: 1307

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	248.2		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-436-3 MS

Matrix: Solid

Analysis Batch: 1307

Client Sample ID: SS03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17000		251	29460	4	mg/Kg		4952	90 - 110

Lab Sample ID: 890-436-3 MSD

Matrix: Solid

Analysis Batch: 1307

Client Sample ID: SS03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17000		251	29510	4	mg/Kg		4972	90 - 110	0	20

Lab Sample ID: MB 880-1308/1-A

Matrix: Solid

Analysis Batch: 1309

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/04/21 17:52	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-1308/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 1309									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	250	251.1		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-1308/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 1309									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	251.5		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

GC VOA

Prep Batch: 1037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-1	SS01	Total/NA	Solid	5035	
890-436-2	SS02	Total/NA	Solid	5035	
890-436-3	SS03	Total/NA	Solid	5035	
890-436-4	SS04	Total/NA	Solid	5035	
MB 880-1037/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1037/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1037/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-1	SS01	Total/NA	Solid	8021B	1037
890-436-2	SS02	Total/NA	Solid	8021B	1037
890-436-3	SS03	Total/NA	Solid	8021B	1037
890-436-4	SS04	Total/NA	Solid	8021B	1037
MB 880-1037/5-A	Method Blank	Total/NA	Solid	8021B	1037
LCS 880-1037/1-A	Lab Control Sample	Total/NA	Solid	8021B	1037
LCSD 880-1037/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1037

GC Semi VOA

Analysis Batch: 1054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-1	SS01	Total/NA	Solid	8015B NM	1065
890-436-2	SS02	Total/NA	Solid	8015B NM	1065
890-436-3	SS03	Total/NA	Solid	8015B NM	1065
890-436-4	SS04	Total/NA	Solid	8015B NM	1065
MB 880-1065/1-A	Method Blank	Total/NA	Solid	8015B NM	1065
LCS 880-1065/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1065
LCSD 880-1065/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1065

Prep Batch: 1065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-1	SS01	Total/NA	Solid	8015NM Prep	
890-436-2	SS02	Total/NA	Solid	8015NM Prep	
890-436-3	SS03	Total/NA	Solid	8015NM Prep	
890-436-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-1065/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1065/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1065/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 1058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-3	SS03	Soluble	Solid	DI Leach	
890-436-4	SS04	Soluble	Solid	DI Leach	
MB 880-1058/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1058/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1058/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-436-3 MS	SS03	Soluble	Solid	DI Leach	
890-436-3 MSD	SS03	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

HPLC/IC

Leach Batch: 1232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-1	SS01	Soluble	Solid	DI Leach	
890-436-2	SS02	Soluble	Solid	DI Leach	
MB 880-1232/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1232/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1232/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-1	SS01	Soluble	Solid	300.0	1232
890-436-2	SS02	Soluble	Solid	300.0	1232
MB 880-1232/1-A	Method Blank	Soluble	Solid	300.0	1232
LCS 880-1232/2-A	Lab Control Sample	Soluble	Solid	300.0	1232
LCSD 880-1232/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1232

Analysis Batch: 1307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-436-3	SS03	Soluble	Solid	300.0	1058
890-436-4	SS04	Soluble	Solid	300.0	1058
MB 880-1058/1-A	Method Blank	Soluble	Solid	300.0	1058
LCS 880-1058/2-A	Lab Control Sample	Soluble	Solid	300.0	1058
LCSD 880-1058/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1058
890-436-3 MS	SS03	Soluble	Solid	300.0	1058
890-436-3 MSD	SS03	Soluble	Solid	300.0	1058

Leach Batch: 1308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1308/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1308/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1308/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1308/1-A	Method Blank	Soluble	Solid	300.0	1308
LCS 880-1308/2-A	Lab Control Sample	Soluble	Solid	300.0	1308
LCSD 880-1308/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1308

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Client Sample ID: SS01

Lab Sample ID: 890-436-1

Date Collected: 03/25/21 10:10

Matrix: Solid

Date Received: 03/26/21 08:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1037	03/29/21 18:30	KL	XM
Total/NA	Analysis	8021B		1	1038	03/29/21 23:34	KL	XM
Total/NA	Prep	8015NM Prep			1065	03/30/21 11:13	DM	XM
Total/NA	Analysis	8015B NM		1	1054	03/31/21 03:51	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		50	1263	04/02/21 19:09	CH	XM

Client Sample ID: SS02

Lab Sample ID: 890-436-2

Date Collected: 03/25/21 10:15

Matrix: Solid

Date Received: 03/26/21 08:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1037	03/29/21 18:30	KL	XM
Total/NA	Analysis	8021B		1	1038	03/29/21 23:55	KL	XM
Total/NA	Prep	8015NM Prep			1065	03/30/21 11:13	DM	XM
Total/NA	Analysis	8015B NM		1	1054	03/31/21 04:13	AJ	XM
Soluble	Leach	DI Leach			1232	04/02/21 10:14	SC	XM
Soluble	Analysis	300.0		50	1263	04/02/21 19:14	CH	XM

Client Sample ID: SS03

Lab Sample ID: 890-436-3

Date Collected: 03/25/21 10:20

Matrix: Solid

Date Received: 03/26/21 08:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1037	03/29/21 18:30	KL	XM
Total/NA	Analysis	8021B		1	1038	03/30/21 00:15	KL	XM
Total/NA	Prep	8015NM Prep			1065	03/30/21 11:13	DM	XM
Total/NA	Analysis	8015B NM		1	1054	03/31/21 04:34	AJ	XM
Soluble	Leach	DI Leach			1058	03/30/21 10:41	SC	XM
Soluble	Analysis	300.0		50	1307	04/04/21 15:14	CH	XM

Client Sample ID: SS04

Lab Sample ID: 890-436-4

Date Collected: 03/25/21 10:25

Matrix: Solid

Date Received: 03/26/21 08:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1037	03/29/21 18:30	KL	XM
Total/NA	Analysis	8021B		1	1038	03/30/21 00:35	KL	XM
Total/NA	Prep	8015NM Prep			1065	03/30/21 11:13	DM	XM
Total/NA	Analysis	8015B NM		1	1054	03/31/21 04:55	AJ	XM
Soluble	Leach	DI Leach			1058	03/30/21 10:41	SC	XM
Soluble	Analysis	300.0		50	1307	04/04/21 15:29	CH	XM

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-436-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-436-1	SS01	Solid	03/25/21 10:10	03/26/21 08:03	
890-436-2	SS02	Solid	03/25/21 10:15	03/26/21 08:03	
890-436-3	SS03	Solid	03/25/21 10:20	03/26/21 08:03	
890-436-4	SS04	Solid	03/25/21 10:25	03/26/21 08:03	



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0200, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-4443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0147, Delray Beach, FL (561) 889-6700
 Atlanta, GA (770) 449-8800

Work Order No.:

www.xenco.com Page _____ of _____

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

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Townfields <input type="checkbox"/> RC <input type="checkbox"/> Self performed <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> STR/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	PDU 61	Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes									
Project Number:		<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush												None: NO				DI Water: H ₂ O					
Project Location		Due Date:													Cool: Cool				MeOH: Me					
Sampler's Name:	Tyla Dominguez	TAT starts the day received by the lab, if received by 4:30pm													HCL: HC				HNO ₃ : HN					
PO #:															H ₂ SO ₄ : H ₂				NaOH: Na					
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Wet Ice:	Yes	No											H ₃ PO ₄ : HP							
Received Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Thermometer ID:	2 NM-001												NaHSO ₄ : NABIS									
Cooler Custody Seals:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Correction Factor:	-0.2												Na ₂ S ₂ O ₃ : NaSO ₃									
Sample Custody Seals:	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A	Temperature Reading:	1.2												Zn Acetate+NaOH: Zn								
Total Containers:		Corrected Temperature:	4.0												NaOH+Ascorbic Acid: SACP									

[illegible]

Total	200.7 / 6010	200.8 / 6020:
8RCRA	13PPM	Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		
TCLP / SPLP-6010	6RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	3-26-21 8:03	2		
3			4		
5			6		

Revised Date 05/01/2020 Rev 2020

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-436-1

Login Number: 436

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-436-1

Login Number: 436

List Source: Eurofins Midland

List Number: 2

List Creation: 03/29/21 12:01 PM

Creator: Copeland, Tatiana

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-495-1
Client Project/Site: RDU 61

For:

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

Attn: Lynda Laumbach

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

Authorized for release by:
4/20/2021 8:50:09 AM

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

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

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

Client: WPX Energy Production LLC
Project/Site: RDU 61

Laboratory Job ID: 890-495-1

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Definitions/Glossary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Job ID: 890-495-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-495-1

Comments

No additional comments.

Receipt

The samples were received on 4/7/2021 3:40 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-495-1), FS02 (890-495-2), FS03 (890-495-3), FS04 (890-495-4), FS05 (890-495-5), FS06 (890-495-6), FS07 (890-495-7), FS08 (890-495-8), FS09 (890-495-9), FS10 (890-495-10), FS11 (890-495-11), FS12 (890-495-12), SW01 (890-495-13), SW02 (890-495-14), SW03 (890-495-15) and SW04 (890-495-16).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-1589 and analytical batch 880-1569 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

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

General Chemistry

Method 300.0: The matrix spike duplicate (MSD) recoveries for preparation batch 880-1884 and 880-1884 and analytical batch 880-1949 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS01

Lab Sample ID: 890-495-1

Date Collected: 04/07/21 10:45

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 07:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 07:39	1
Ethylbenzene	0.00202		0.00199		mg/Kg		04/09/21 12:06	04/10/21 07:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/09/21 12:06	04/10/21 07:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 07:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/09/21 12:06	04/10/21 07:39	1
Total BTEX	0.00202		0.00199		mg/Kg		04/09/21 12:06	04/10/21 07:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/09/21 12:06	04/10/21 07:39	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/09/21 12:06	04/10/21 07:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	49.9		mg/Kg		04/08/21 16:14	04/09/21 00:26	1
Diesel Range Organics (Over C10-C28)	495		49.9		mg/Kg		04/08/21 16:14	04/09/21 00:26	1
Oil Range Organics (Over C28-C36)	269		49.9		mg/Kg		04/08/21 16:14	04/09/21 00:26	1
Total TPH	764		49.9		mg/Kg		04/08/21 16:14	04/09/21 00:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	04/08/21 16:14	04/09/21 00:26	1
o-Terphenyl	79		70 - 130	04/08/21 16:14	04/09/21 00:26	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4530		25.2		mg/Kg			04/19/21 13:17	5

Client Sample ID: FS02

Lab Sample ID: 890-495-2

Date Collected: 04/07/21 10:50

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:00	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/09/21 12:06	04/10/21 08:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:00	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/09/21 12:06	04/10/21 08:00	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	04/09/21 12:06	04/10/21 08:00	1
1,4-Difluorobenzene (Surr)	110		70 - 130	04/09/21 12:06	04/10/21 08:00	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS02

Lab Sample ID: 890-495-2

Date Collected: 04/07/21 10:50

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 01:30	1
Diesel Range Organics (Over C10-C28)	245		49.9		mg/Kg		04/08/21 16:14	04/09/21 01:30	1
Oil Range Organics (Over C28-C36)	121		49.9		mg/Kg		04/08/21 16:14	04/09/21 01:30	1
Total TPH	366		49.9		mg/Kg		04/08/21 16:14	04/09/21 01:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	04/08/21 16:14	04/09/21 01:30	1
o-Terphenyl	76		70 - 130	04/08/21 16:14	04/09/21 01:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6410		25.1		mg/Kg			04/19/21 13:23	5

Client Sample ID: FS03

Lab Sample ID: 890-495-3

Date Collected: 04/07/21 10:55

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 08:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 08:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 08:21	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/09/21 12:06	04/10/21 08:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 08:21	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/09/21 12:06	04/10/21 08:21	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 08:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	04/09/21 12:06	04/10/21 08:21	1
1,4-Difluorobenzene (Surr)	106		70 - 130	04/09/21 12:06	04/10/21 08:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/08/21 16:14	04/09/21 01:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/08/21 16:14	04/09/21 01:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/08/21 16:14	04/09/21 01:51	1
Total TPH	<49.8	U	49.8		mg/Kg		04/08/21 16:14	04/09/21 01:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	04/08/21 16:14	04/09/21 01:51	1
o-Terphenyl	75		70 - 130	04/08/21 16:14	04/09/21 01:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6140		25.1		mg/Kg			04/19/21 13:40	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS04

Lab Sample ID: 890-495-4

Date Collected: 04/07/21 11:00

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/09/21 12:06	04/10/21 08:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/09/21 12:06	04/10/21 08:42	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 08:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/09/21 12:06	04/10/21 08:42	1
1,4-Difluorobenzene (Surr)	104		70 - 130	04/09/21 12:06	04/10/21 08:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	50.3		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:11	1
Diesel Range Organics (Over C10-C28)	70.1		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 02:11	1
Total TPH	120		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/08/21 16:14	04/09/21 02:11	1
o-Terphenyl	89		70 - 130	04/08/21 16:14	04/09/21 02:11	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5870		24.9		mg/Kg			04/19/21 13:45	5

Client Sample ID: FS05

Lab Sample ID: 890-495-5

Date Collected: 04/07/21 11:05

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 09:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 09:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 09:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/09/21 12:06	04/10/21 09:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 09:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/09/21 12:06	04/10/21 09:02	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/09/21 12:06	04/10/21 09:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	04/09/21 12:06	04/10/21 09:02	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/09/21 12:06	04/10/21 09:02	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS05

Lab Sample ID: 890-495-5

Date Collected: 04/07/21 11:05

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 02:32	1
Diesel Range Organics (Over C10-C28)	91.4		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 02:32	1
Total TPH	91.4		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	04/08/21 16:14	04/09/21 02:32	1
o-Terphenyl	85		70 - 130	04/08/21 16:14	04/09/21 02:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5620		25.2		mg/Kg			04/19/21 13:51	5

Client Sample ID: FS06

Lab Sample ID: 890-495-6

Date Collected: 04/07/21 11:10

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00289		0.00200		mg/Kg		04/09/21 12:06	04/10/21 09:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 09:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 09:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/09/21 12:06	04/10/21 09:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 09:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/09/21 12:06	04/10/21 09:23	1
Total BTEX	0.00289		0.00200		mg/Kg		04/09/21 12:06	04/10/21 09:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	04/09/21 12:06	04/10/21 09:23	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/09/21 12:06	04/10/21 09:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 02:53	1
Diesel Range Organics (Over C10-C28)	184		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:53	1
Oil Range Organics (Over C28-C36)	90.8		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:53	1
Total TPH	275		49.9		mg/Kg		04/08/21 16:14	04/09/21 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	04/08/21 16:14	04/09/21 02:53	1
o-Terphenyl	79		70 - 130	04/08/21 16:14	04/09/21 02:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4160		24.9		mg/Kg			04/19/21 13:56	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS07

Lab Sample ID: 890-495-7

Date Collected: 04/07/21 11:15

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/09/21 12:06	04/10/21 09:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/09/21 12:06	04/10/21 09:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/09/21 12:06	04/10/21 09:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/09/21 12:06	04/10/21 09:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/09/21 12:06	04/10/21 09:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/09/21 12:06	04/10/21 09:44	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/09/21 12:06	04/10/21 09:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	04/09/21 12:06	04/10/21 09:44	1
1,4-Difluorobenzene (Surr)	118		70 - 130	04/09/21 12:06	04/10/21 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	71.1		50.0		mg/Kg		04/08/21 16:14	04/09/21 03:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 03:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 03:15	1
Total TPH	71.1		50.0		mg/Kg		04/08/21 16:14	04/09/21 03:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	04/08/21 16:14	04/09/21 03:15	1
o-Terphenyl	76		70 - 130	04/08/21 16:14	04/09/21 03:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	950		25.3		mg/Kg			04/19/21 14:02	5

Client Sample ID: FS08

Lab Sample ID: 890-495-8

Date Collected: 04/07/21 11:20

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 10:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 10:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 10:05	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/09/21 12:06	04/10/21 10:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 10:05	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/09/21 12:06	04/10/21 10:05	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/09/21 12:06	04/10/21 10:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/09/21 12:06	04/10/21 10:05	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/09/21 12:06	04/10/21 10:05	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS08

Lab Sample ID: 890-495-8

Date Collected: 04/07/21 11:20

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	528		50.0		mg/Kg		04/08/21 16:14	04/09/21 03:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 03:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 03:36	1
Total TPH	528		50.0		mg/Kg		04/08/21 16:14	04/09/21 03:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	04/08/21 16:14	04/09/21 03:36	1
o-Terphenyl	72		70 - 130	04/08/21 16:14	04/09/21 03:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	823		25.3		mg/Kg			04/19/21 14:07	5

Client Sample ID: FS09

Lab Sample ID: 890-495-9

Date Collected: 04/07/21 11:25

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 16:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 16:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 16:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/09/21 14:10	04/09/21 16:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 16:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/09/21 14:10	04/09/21 16:24	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	04/09/21 14:10	04/09/21 16:24	1
1,4-Difluorobenzene (Surr)	109		70 - 130	04/09/21 14:10	04/09/21 16:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 03:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 03:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 03:57	1
Total TPH	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 03:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	04/08/21 16:14	04/09/21 03:57	1
o-Terphenyl	80		70 - 130	04/08/21 16:14	04/09/21 03:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3420		24.9		mg/Kg			04/19/21 14:24	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS10

Lab Sample ID: 890-495-10

Date Collected: 04/07/21 11:30

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 16:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 16:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 16:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/09/21 14:10	04/09/21 16:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 16:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/09/21 14:10	04/09/21 16:45	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/09/21 14:10	04/09/21 16:45	1
1,4-Difluorobenzene (Surr)	105		70 - 130	04/09/21 14:10	04/09/21 16:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 04:18	1
Diesel Range Organics (Over C10-C28)	107		50.0		mg/Kg		04/08/21 16:14	04/09/21 04:18	1
Oil Range Organics (Over C28-C36)	50.2		50.0		mg/Kg		04/08/21 16:14	04/09/21 04:18	1
Total TPH	157		50.0		mg/Kg		04/08/21 16:14	04/09/21 04:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	04/08/21 16:14	04/09/21 04:18	1
o-Terphenyl	83		70 - 130	04/08/21 16:14	04/09/21 04:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2910		25.0		mg/Kg			04/19/21 14:29	5

Client Sample ID: FS11

Lab Sample ID: 890-495-11

Date Collected: 04/07/21 11:35

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/09/21 14:10	04/09/21 17:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:05	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/09/21 14:10	04/09/21 17:05	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	04/09/21 14:10	04/09/21 17:05	1
1,4-Difluorobenzene (Surr)	106		70 - 130	04/09/21 14:10	04/09/21 17:05	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS11

Lab Sample ID: 890-495-11

Date Collected: 04/07/21 11:35

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 05:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 05:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 05:01	1
Total TPH	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 05:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/08/21 16:14	04/09/21 05:01	1
o-Terphenyl	84		70 - 130	04/08/21 16:14	04/09/21 05:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	790		24.8		mg/Kg			04/19/21 14:46	5

Client Sample ID: FS12

Lab Sample ID: 890-495-12

Date Collected: 04/07/21 11:40

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/09/21 14:10	04/09/21 17:26	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/09/21 14:10	04/09/21 17:26	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/09/21 14:10	04/09/21 17:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/09/21 14:10	04/09/21 17:26	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/09/21 14:10	04/09/21 17:26	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/09/21 14:10	04/09/21 17:26	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		04/09/21 14:10	04/09/21 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	04/09/21 14:10	04/09/21 17:26	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/09/21 14:10	04/09/21 17:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	81.1		49.8		mg/Kg		04/08/21 16:14	04/09/21 05:22	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/08/21 16:14	04/09/21 05:22	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/08/21 16:14	04/09/21 05:22	1
Total TPH	81.1		49.8		mg/Kg		04/08/21 16:14	04/09/21 05:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	04/08/21 16:14	04/09/21 05:22	1
o-Terphenyl	72		70 - 130	04/08/21 16:14	04/09/21 05:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	836		25.0		mg/Kg			04/19/21 14:51	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: SW01

Lab Sample ID: 890-495-13

Date Collected: 04/07/21 11:45

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/09/21 14:10	04/09/21 17:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:46	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/09/21 14:10	04/09/21 17:46	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/09/21 14:10	04/09/21 17:46	1
1,4-Difluorobenzene (Surr)	109		70 - 130	04/09/21 14:10	04/09/21 17:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	58.0		49.9		mg/Kg		04/08/21 16:14	04/09/21 05:43	1
Diesel Range Organics (Over C10-C28)	66.5		49.9		mg/Kg		04/08/21 16:14	04/09/21 05:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/08/21 16:14	04/09/21 05:43	1
Total TPH	125		49.9		mg/Kg		04/08/21 16:14	04/09/21 05:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	04/08/21 16:14	04/09/21 05:43	1
o-Terphenyl	82		70 - 130	04/08/21 16:14	04/09/21 05:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3000		25.0		mg/Kg			04/19/21 14:57	5

Client Sample ID: SW02

Lab Sample ID: 890-495-14

Date Collected: 04/07/21 11:50

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 18:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 18:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 18:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/09/21 14:10	04/09/21 18:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 18:06	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/09/21 14:10	04/09/21 18:06	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 18:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	04/09/21 14:10	04/09/21 18:06	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/09/21 14:10	04/09/21 18:06	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: SW02

Lab Sample ID: 890-495-14

Date Collected: 04/07/21 11:50

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 06:04	1
Diesel Range Organics (Over C10-C28)	56.0		50.0		mg/Kg		04/08/21 16:14	04/09/21 06:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 06:04	1
Total TPH	56.0		50.0		mg/Kg		04/08/21 16:14	04/09/21 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	04/08/21 16:14	04/09/21 06:04	1
o-Terphenyl	73		70 - 130	04/08/21 16:14	04/09/21 06:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43000		546		mg/Kg			04/17/21 23:02	110

Client Sample ID: SW03

Lab Sample ID: 890-495-15

Date Collected: 04/07/21 11:55

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400		mg/Kg		04/09/21 14:10	04/09/21 18:27	20
Toluene	<0.0400	U	0.0400		mg/Kg		04/09/21 14:10	04/09/21 18:27	20
Ethylbenzene	<0.0400	U	0.0400		mg/Kg		04/09/21 14:10	04/09/21 18:27	20
m-Xylene & p-Xylene	<0.0800	U	0.0800		mg/Kg		04/09/21 14:10	04/09/21 18:27	20
o-Xylene	<0.0400	U	0.0400		mg/Kg		04/09/21 14:10	04/09/21 18:27	20
Xylenes, Total	<0.0800	U	0.0800		mg/Kg		04/09/21 14:10	04/09/21 18:27	20
Total BTEX	<0.0400	U	0.0400		mg/Kg		04/09/21 14:10	04/09/21 18:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/09/21 14:10	04/09/21 18:27	20
1,4-Difluorobenzene (Surr)	108		70 - 130	04/09/21 14:10	04/09/21 18:27	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 06:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 06:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 06:26	1
Total TPH	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/09/21 06:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	04/08/21 16:14	04/09/21 06:26	1
o-Terphenyl	82		70 - 130	04/08/21 16:14	04/09/21 06:26	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1120		25.0		mg/Kg			04/17/21 23:17	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: SW04

Lab Sample ID: 890-495-16

Date Collected: 04/07/21 12:00

Matrix: Solid

Date Received: 04/07/21 15:40

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 18:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 18:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 18:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/09/21 14:10	04/09/21 18:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 18:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/09/21 14:10	04/09/21 18:47	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/09/21 14:10	04/09/21 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	04/09/21 14:10	04/09/21 18:47	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/09/21 14:10	04/09/21 18:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/08/21 16:14	04/09/21 06:47	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		04/08/21 16:14	04/09/21 06:47	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/08/21 16:14	04/09/21 06:47	1
Total TPH	<50.1	U	50.1		mg/Kg		04/08/21 16:14	04/09/21 06:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	04/08/21 16:14	04/09/21 06:47	1
o-Terphenyl	81		70 - 130	04/08/21 16:14	04/09/21 06:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4540		49.8		mg/Kg			04/17/21 23:22	10

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
890-495-1	FS01	90	97				
890-495-2	FS02	94	110				
890-495-3	FS03	87	106				
890-495-4	FS04	96	104				
890-495-5	FS05	91	108				
890-495-6	FS06	86	108				
890-495-7	FS07	100	118				
890-495-8	FS08	103	107				
890-495-9	FS09	108	109				
890-495-9 MS	FS09	104	104				
890-495-9 MSD	FS09	104	104				
890-495-10	FS10	107	105				
890-495-11	FS11	112	106				
890-495-12	FS12	111	108				
890-495-13	SW01	107	109				
890-495-14	SW02	114	108				
890-495-15	SW03	106	108				
890-495-16	SW04	111	108				
LCS 880-1589/1-A	Lab Control Sample	93	114				
LCS 880-1594/1-A	Lab Control Sample	98	106				
LCSD 880-1589/2-A	Lab Control Sample Dup	94	111				
LCSD 880-1594/2-A	Lab Control Sample Dup	100	104				
MB 880-1511/5-A	Method Blank	103	108				
MB 880-1589/5-A	Method Blank	102	101				
MB 880-1594/5-A	Method Blank	99	103				

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-495-1	FS01	88	79				
890-495-1 MS	FS01	105	80				
890-495-1 MSD	FS01	92	72				
890-495-2	FS02	86	76				
890-495-3	FS03	83	75				
890-495-4	FS04	101	89				
890-495-5	FS05	93	85				
890-495-6	FS06	88	79				
890-495-7	FS07	85	76				
890-495-8	FS08	81	72				
890-495-9	FS09	87	80				
890-495-10	FS10	92	83				
890-495-11	FS11	99	84				
890-495-12	FS12	83	72				

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WPX Energy Production LLC

Job ID: 890-495-1

Project/Site: RDU 61

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-495-13	SW01	97	82
890-495-14	SW02	83	73
890-495-15	SW03	95	82
890-495-16	SW04	95	81
LCS 880-1547/2-A	Lab Control Sample	108	93
LCSD 880-1547/3-A	Lab Control Sample Dup	108	92
MB 880-1547/1-A	Method Blank	102	99

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1511/5-A

Matrix: Solid

Analysis Batch: 1569

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/08/21 11:09	04/09/21 12:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/08/21 11:09	04/09/21 12:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/08/21 11:09	04/09/21 12:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/08/21 11:09	04/09/21 12:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/08/21 11:09	04/09/21 12:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/08/21 11:09	04/09/21 12:19	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/08/21 11:09	04/09/21 12:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/08/21 11:09	04/09/21 12:19	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/08/21 11:09	04/09/21 12:19	1

Lab Sample ID: MB 880-1589/5-A

Matrix: Solid

Analysis Batch: 1569

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 02:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 02:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 02:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/09/21 12:06	04/10/21 02:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 02:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/09/21 12:06	04/10/21 02:06	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 12:06	04/10/21 02:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/09/21 12:06	04/10/21 02:06	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/09/21 12:06	04/10/21 02:06	1

Lab Sample ID: LCS 880-1589/1-A

Matrix: Solid

Analysis Batch: 1569

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09701		mg/Kg		97	70 - 130
Toluene	0.100	0.09986		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.09672		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.1935		mg/Kg		97	70 - 130
o-Xylene	0.100	0.09580		mg/Kg		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

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

Lab Sample ID: LCSD 880-1589/2-A

Matrix: Solid

Analysis Batch: 1569

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09714		mg/Kg		97	70 - 130	0	35
Toluene	0.100	0.09960		mg/Kg		100	70 - 130	0	35
Ethylbenzene	0.100	0.09878		mg/Kg		99	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1923		mg/Kg		96	70 - 130	1	35
o-Xylene	0.100	0.09333		mg/Kg		93	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: MB 880-1594/5-A

Matrix: Solid

Analysis Batch: 1593

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1594

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 15:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 15:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 15:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/09/21 14:10	04/09/21 15:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 15:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/09/21 14:10	04/09/21 15:55	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/09/21 14:10	04/09/21 15:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/09/21 14:10	04/09/21 15:55	1
1,4-Difluorobenzene (Surr)	103		70 - 130	04/09/21 14:10	04/09/21 15:55	1

Lab Sample ID: LCS 880-1594/1-A

Matrix: Solid

Analysis Batch: 1593

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09686		mg/Kg		97	70 - 130
Toluene	0.100	0.09946		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1033		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2108		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1023		mg/Kg		102	70 - 130

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

Lab Sample ID: LCSD 880-1594/2-A

Matrix: Solid

Analysis Batch: 1593

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1594

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09677		mg/Kg		97	70 - 130	0	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

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

Lab Sample ID: LCSD 880-1594/2-A

Matrix: Solid

Analysis Batch: 1593

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1594

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.09928		mg/Kg		99	70 - 130	0	35
Ethylbenzene	0.100	0.1032		mg/Kg		103	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130	1	35
o-Xylene	0.100	0.1018		mg/Kg		102	70 - 130	1	35

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

Lab Sample ID: 890-495-9 MS

Matrix: Solid

Analysis Batch: 1593

Client Sample ID: FS09

Prep Type: Total/NA

Prep Batch: 1594

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0998	0.08968		mg/Kg		90	70 - 130
Toluene	<0.00199	U	0.0998	0.09597		mg/Kg		96	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.09600		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1967		mg/Kg		99	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09545		mg/Kg		96	70 - 130

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

Lab Sample ID: 890-495-9 MSD

Matrix: Solid

Analysis Batch: 1593

Client Sample ID: FS09

Prep Type: Total/NA

Prep Batch: 1594

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.08402		mg/Kg		84	70 - 130	7	35
Toluene	<0.00199	U	0.0998	0.08940		mg/Kg		90	70 - 130	7	35
Ethylbenzene	<0.00199	U	0.0998	0.09253		mg/Kg		93	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1911		mg/Kg		96	70 - 130	3	35
o-Xylene	<0.00199	U	0.0998	0.09301		mg/Kg		93	70 - 130	3	35

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

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

Lab Sample ID: MB 880-1547/1-A

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1547

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/08/21 23:23	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

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

Lab Sample ID: MB 880-1547/1-A

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1547

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/08/21 23:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/08/21 23:23	1
Total TPH	<50.0	U	50.0		mg/Kg		04/08/21 16:14	04/08/21 23:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	04/08/21 16:14	04/08/21 23:23	1
o-Terphenyl	99		70 - 130	04/08/21 16:14	04/08/21 23:23	1

Lab Sample ID: LCS 880-1547/2-A

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1547

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1302		mg/Kg		130	70 - 130
Diesel Range Organics (Over C10-C28)	1000	980.8		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-1547/3-A

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1547

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1235		mg/Kg		124	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	970.2		mg/Kg		97	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: 890-495-1 MS

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1547

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1473	F1	mg/Kg		145	70 - 130
Diesel Range Organics (Over C10-C28)	495		998	1482		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	105		70 - 130

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QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

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

Lab Sample ID: 890-495-1 MS

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1547

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	80		70 - 130

Lab Sample ID: 890-495-1 MSD

Matrix: Solid

Analysis Batch: 1501

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 1547

	Sample	Sample	Spike	MSD	MSD				%Rec.	RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1315		mg/Kg		130	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	495		998	1326		mg/Kg		83	70 - 130	11	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
<i>o</i> -Terphenyl	72		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1729/1-A

Matrix: Solid

Analysis Batch: 1856

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00		mg/Kg			04/19/21 12:33	1		

Lab Sample ID: LCS 880-1729/2-A

Matrix: Solid

Analysis Batch: 1856

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Lab Sample ID: LCSD 880-1729/3-A

Matrix: Solid

Analysis Batch: 1856

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD					%Rec.	RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	251.4		mg/Kg		101	90 - 110	0	20	

Lab Sample ID: 890-495-8 MS

Matrix: Solid

Analysis Batch: 1856

Client Sample ID: FS08

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	823		1260	2094		mg/Kg		101	90 - 110	

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QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-495-8 MSD

Matrix: Solid

Analysis Batch: 1856

Client Sample ID: FS08

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	823		1260	2093		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-1884/1-A

Matrix: Solid

Analysis Batch: 1949

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/17/21 21:15	1

Lab Sample ID: LCS 880-1884/2-A

Matrix: Solid

Analysis Batch: 1949

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.7		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-1884/3-A

Matrix: Solid

Analysis Batch: 1949

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	244.8		mg/Kg		98	90 - 110	0	20

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QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

GC VOA

Prep Batch: 1511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-1511/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 1569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-1	FS01	Total/NA	Solid	8021B	1589
890-495-2	FS02	Total/NA	Solid	8021B	1589
890-495-3	FS03	Total/NA	Solid	8021B	1589
890-495-4	FS04	Total/NA	Solid	8021B	1589
890-495-5	FS05	Total/NA	Solid	8021B	1589
890-495-6	FS06	Total/NA	Solid	8021B	1589
890-495-7	FS07	Total/NA	Solid	8021B	1589
890-495-8	FS08	Total/NA	Solid	8021B	1589
MB 880-1511/5-A	Method Blank	Total/NA	Solid	8021B	1511
MB 880-1589/5-A	Method Blank	Total/NA	Solid	8021B	1589
LCS 880-1589/1-A	Lab Control Sample	Total/NA	Solid	8021B	1589
LCSD 880-1589/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1589

Prep Batch: 1589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-1	FS01	Total/NA	Solid	5035	
890-495-2	FS02	Total/NA	Solid	5035	
890-495-3	FS03	Total/NA	Solid	5035	
890-495-4	FS04	Total/NA	Solid	5035	
890-495-5	FS05	Total/NA	Solid	5035	
890-495-6	FS06	Total/NA	Solid	5035	
890-495-7	FS07	Total/NA	Solid	5035	
890-495-8	FS08	Total/NA	Solid	5035	
MB 880-1589/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1589/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1589/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-9	FS09	Total/NA	Solid	8021B	1594
890-495-10	FS10	Total/NA	Solid	8021B	1594
890-495-11	FS11	Total/NA	Solid	8021B	1594
890-495-12	FS12	Total/NA	Solid	8021B	1594
890-495-13	SW01	Total/NA	Solid	8021B	1594
890-495-14	SW02	Total/NA	Solid	8021B	1594
890-495-15	SW03	Total/NA	Solid	8021B	1594
890-495-16	SW04	Total/NA	Solid	8021B	1594
MB 880-1594/5-A	Method Blank	Total/NA	Solid	8021B	1594
LCS 880-1594/1-A	Lab Control Sample	Total/NA	Solid	8021B	1594
LCSD 880-1594/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1594
890-495-9 MS	FS09	Total/NA	Solid	8021B	1594
890-495-9 MSD	FS09	Total/NA	Solid	8021B	1594

Prep Batch: 1594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-9	FS09	Total/NA	Solid	5035	
890-495-10	FS10	Total/NA	Solid	5035	

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QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

GC VOA (Continued)

Prep Batch: 1594 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-11	FS11	Total/NA	Solid	5035	
890-495-12	FS12	Total/NA	Solid	5035	
890-495-13	SW01	Total/NA	Solid	5035	
890-495-14	SW02	Total/NA	Solid	5035	
890-495-15	SW03	Total/NA	Solid	5035	
890-495-16	SW04	Total/NA	Solid	5035	
MB 880-1594/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1594/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1594/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-495-9 MS	FS09	Total/NA	Solid	5035	
890-495-9 MSD	FS09	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 1501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-1	FS01	Total/NA	Solid	8015B NM	1547
890-495-2	FS02	Total/NA	Solid	8015B NM	1547
890-495-3	FS03	Total/NA	Solid	8015B NM	1547
890-495-4	FS04	Total/NA	Solid	8015B NM	1547
890-495-5	FS05	Total/NA	Solid	8015B NM	1547
890-495-6	FS06	Total/NA	Solid	8015B NM	1547
890-495-7	FS07	Total/NA	Solid	8015B NM	1547
890-495-8	FS08	Total/NA	Solid	8015B NM	1547
890-495-9	FS09	Total/NA	Solid	8015B NM	1547
890-495-10	FS10	Total/NA	Solid	8015B NM	1547
890-495-11	FS11	Total/NA	Solid	8015B NM	1547
890-495-12	FS12	Total/NA	Solid	8015B NM	1547
890-495-13	SW01	Total/NA	Solid	8015B NM	1547
890-495-14	SW02	Total/NA	Solid	8015B NM	1547
890-495-15	SW03	Total/NA	Solid	8015B NM	1547
890-495-16	SW04	Total/NA	Solid	8015B NM	1547
MB 880-1547/1-A	Method Blank	Total/NA	Solid	8015B NM	1547
LCS 880-1547/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1547
LCSD 880-1547/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1547
890-495-1 MS	FS01	Total/NA	Solid	8015B NM	1547
890-495-1 MSD	FS01	Total/NA	Solid	8015B NM	1547

Prep Batch: 1547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-1	FS01	Total/NA	Solid	8015NM Prep	
890-495-2	FS02	Total/NA	Solid	8015NM Prep	
890-495-3	FS03	Total/NA	Solid	8015NM Prep	
890-495-4	FS04	Total/NA	Solid	8015NM Prep	
890-495-5	FS05	Total/NA	Solid	8015NM Prep	
890-495-6	FS06	Total/NA	Solid	8015NM Prep	
890-495-7	FS07	Total/NA	Solid	8015NM Prep	
890-495-8	FS08	Total/NA	Solid	8015NM Prep	
890-495-9	FS09	Total/NA	Solid	8015NM Prep	
890-495-10	FS10	Total/NA	Solid	8015NM Prep	
890-495-11	FS11	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

GC Semi VOA (Continued)

Prep Batch: 1547 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-12	FS12	Total/NA	Solid	8015NM Prep	
890-495-13	SW01	Total/NA	Solid	8015NM Prep	
890-495-14	SW02	Total/NA	Solid	8015NM Prep	
890-495-15	SW03	Total/NA	Solid	8015NM Prep	
890-495-16	SW04	Total/NA	Solid	8015NM Prep	
MB 880-1547/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1547/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1547/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-495-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-495-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 1729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-1	FS01	Soluble	Solid	DI Leach	
890-495-2	FS02	Soluble	Solid	DI Leach	
890-495-3	FS03	Soluble	Solid	DI Leach	
890-495-4	FS04	Soluble	Solid	DI Leach	
890-495-5	FS05	Soluble	Solid	DI Leach	
890-495-6	FS06	Soluble	Solid	DI Leach	
890-495-7	FS07	Soluble	Solid	DI Leach	
890-495-8	FS08	Soluble	Solid	DI Leach	
890-495-9	FS09	Soluble	Solid	DI Leach	
890-495-10	FS10	Soluble	Solid	DI Leach	
890-495-11	FS11	Soluble	Solid	DI Leach	
890-495-12	FS12	Soluble	Solid	DI Leach	
890-495-13	SW01	Soluble	Solid	DI Leach	
MB 880-1729/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1729/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1729/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-495-8 MS	FS08	Soluble	Solid	DI Leach	
890-495-8 MSD	FS08	Soluble	Solid	DI Leach	

Analysis Batch: 1856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-1	FS01	Soluble	Solid	300.0	1729
890-495-2	FS02	Soluble	Solid	300.0	1729
890-495-3	FS03	Soluble	Solid	300.0	1729
890-495-4	FS04	Soluble	Solid	300.0	1729
890-495-5	FS05	Soluble	Solid	300.0	1729
890-495-6	FS06	Soluble	Solid	300.0	1729
890-495-7	FS07	Soluble	Solid	300.0	1729
890-495-8	FS08	Soluble	Solid	300.0	1729
890-495-9	FS09	Soluble	Solid	300.0	1729
890-495-10	FS10	Soluble	Solid	300.0	1729
890-495-11	FS11	Soluble	Solid	300.0	1729
890-495-12	FS12	Soluble	Solid	300.0	1729
890-495-13	SW01	Soluble	Solid	300.0	1729
MB 880-1729/1-A	Method Blank	Soluble	Solid	300.0	1729
LCS 880-1729/2-A	Lab Control Sample	Soluble	Solid	300.0	1729

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

HPLC/IC (Continued)

Analysis Batch: 1856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-1729/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1729
890-495-8 MS	FS08	Soluble	Solid	300.0	1729
890-495-8 MSD	FS08	Soluble	Solid	300.0	1729

Leach Batch: 1884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-14	SW02	Soluble	Solid	DI Leach	
890-495-15	SW03	Soluble	Solid	DI Leach	
890-495-16	SW04	Soluble	Solid	DI Leach	
MB 880-1884/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1884/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1884/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-495-14	SW02	Soluble	Solid	300.0	1884
890-495-15	SW03	Soluble	Solid	300.0	1884
890-495-16	SW04	Soluble	Solid	300.0	1884
MB 880-1884/1-A	Method Blank	Soluble	Solid	300.0	1884
LCS 880-1884/2-A	Lab Control Sample	Soluble	Solid	300.0	1884
LCSD 880-1884/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1884

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS01

Lab Sample ID: 890-495-1

Date Collected: 04/07/21 10:45

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 07:39	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 00:26	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 13:17	SC	XM

Client Sample ID: FS02

Lab Sample ID: 890-495-2

Date Collected: 04/07/21 10:50

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 08:00	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 01:30	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 13:23	SC	XM

Client Sample ID: FS03

Lab Sample ID: 890-495-3

Date Collected: 04/07/21 10:55

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 08:21	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 01:51	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 13:40	SC	XM

Client Sample ID: FS04

Lab Sample ID: 890-495-4

Date Collected: 04/07/21 11:00

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 08:42	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 02:11	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 13:45	SC	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS05

Lab Sample ID: 890-495-5

Date Collected: 04/07/21 11:05

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 09:02	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 02:32	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 13:51	SC	XM

Client Sample ID: FS06

Lab Sample ID: 890-495-6

Date Collected: 04/07/21 11:10

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 09:23	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 02:53	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 13:56	SC	XM

Client Sample ID: FS07

Lab Sample ID: 890-495-7

Date Collected: 04/07/21 11:15

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 09:44	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 03:15	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:02	SC	XM

Client Sample ID: FS08

Lab Sample ID: 890-495-8

Date Collected: 04/07/21 11:20

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1589	04/09/21 12:06	MR	XM
Total/NA	Analysis	8021B		1	1569	04/10/21 10:05	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 03:36	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:07	SC	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: FS09

Lab Sample ID: 890-495-9

Date Collected: 04/07/21 11:25

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 16:24	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 03:57	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:24	SC	XM

Client Sample ID: FS10

Lab Sample ID: 890-495-10

Date Collected: 04/07/21 11:30

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 16:45	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 04:18	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:29	SC	XM

Client Sample ID: FS11

Lab Sample ID: 890-495-11

Date Collected: 04/07/21 11:35

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 17:05	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 05:01	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:46	SC	XM

Client Sample ID: FS12

Lab Sample ID: 890-495-12

Date Collected: 04/07/21 11:40

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 17:26	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 05:22	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:51	SC	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Client Sample ID: SW01

Lab Sample ID: 890-495-13

Date Collected: 04/07/21 11:45

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 17:46	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 05:43	AJ	XM
Soluble	Leach	DI Leach			1729	04/13/21 12:45	SC	XM
Soluble	Analysis	300.0		5	1856	04/19/21 14:57	SC	XM

Client Sample ID: SW02

Lab Sample ID: 890-495-14

Date Collected: 04/07/21 11:50

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 18:06	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 06:04	AJ	XM
Soluble	Leach	DI Leach			1884	04/16/21 11:39	SC	XM
Soluble	Analysis	300.0		110	1949	04/17/21 23:02	WP	XM

Client Sample ID: SW03

Lab Sample ID: 890-495-15

Date Collected: 04/07/21 11:55

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		20	1593	04/09/21 18:27	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 06:26	AJ	XM
Soluble	Leach	DI Leach			1884	04/16/21 11:39	SC	XM
Soluble	Analysis	300.0		5	1949	04/17/21 23:17	WP	XM

Client Sample ID: SW04

Lab Sample ID: 890-495-16

Date Collected: 04/07/21 12:00

Matrix: Solid

Date Received: 04/07/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1594	04/09/21 14:10	MR	XM
Total/NA	Analysis	8021B		1	1593	04/09/21 18:47	MR	XM
Total/NA	Prep	8015NM Prep			1547	04/08/21 16:14	DM	XM
Total/NA	Analysis	8015B NM		1	1501	04/09/21 06:47	AJ	XM
Soluble	Leach	DI Leach			1884	04/16/21 11:39	SC	XM
Soluble	Analysis	300.0		10	1949	04/17/21 23:22	WP	XM

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-495-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-495-1	FS01	Solid	04/07/21 10:45	04/07/21 15:40	- 2
890-495-2	FS02	Solid	04/07/21 10:50	04/07/21 15:40	- 2
890-495-3	FS03	Solid	04/07/21 10:55	04/07/21 15:40	- 2
890-495-4	FS04	Solid	04/07/21 11:00	04/07/21 15:40	- 2
890-495-5	FS05	Solid	04/07/21 11:05	04/07/21 15:40	- 2
890-495-6	FS06	Solid	04/07/21 11:10	04/07/21 15:40	- 2
890-495-7	FS07	Solid	04/07/21 11:15	04/07/21 15:40	- 2
890-495-8	FS08	Solid	04/07/21 11:20	04/07/21 15:40	- 2
890-495-9	FS09	Solid	04/07/21 11:25	04/07/21 15:40	- 2
890-495-10	FS10	Solid	04/07/21 11:30	04/07/21 15:40	- 2
890-495-11	FS11	Solid	04/07/21 11:35	04/07/21 15:40	- 2
890-495-12	FS12	Solid	04/07/21 11:40	04/07/21 15:40	- 2
890-495-13	SW01	Solid	04/07/21 11:45	04/07/21 15:40	- 1
890-495-14	SW02	Solid	04/07/21 11:50	04/07/21 15:40	- 1
890-495-15	SW03	Solid	04/07/21 11:55	04/07/21 15:40	- 1
890-495-16	SW04	Solid	04/07/21 12:00	04/07/21 15:40	- 1

Eurofins Xenco, Carlsbad



Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No. _____

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Chain of Custody

Project Manager:		Lynda Laumbach		Bill to: (if different)			
Company Name:		WYPX Energy Permian LLC		Company Name:			
Address:		5315 Buena Vista Dr		Address:			
City, State ZIP:		Carlsbad, NM 88220		City, State ZIP:			
Phone:		575-725-1647		Email:		Lynda.Laumbach@wypxenergy.com	
Project Name:		RDU 61		Turn Around			
Project Number:				<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush		Pres. Code	
Project Location:				Due Date:			
Sampler's Name:		Tyler Dominguez		TAT starts the day received by the lab, if received by 4:30pm			
P.O. #:							
SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Parameters	
Samples Received Intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID: 1704-001		Chlorides (EPA 300.0)	
Cooler Custody Seals:		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		Correction Factor:		BTEx (Method 8021)	
Sample Custody Seals:		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Temperature Reading:		TPH (Method 8015)	
Total Containers:				Corrected Temperature:		4.6	
Sample Identification		Matrix		Date Sampled		Time Sampled	
FS01		S		4-7-21		10:45	
FS02		S		10:50		2'	
FS03		S		10:55		2'	
FS04		S		11:00		2'	
FS05		S		11:05		2'	
FS06		S		11:10		2'	
FS07		S		11:15		2'	
FS08		S		11:20		2'	
FS09		S		11:25		2'	
FS10		S		11:30		2'	
Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al 5b As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TC1P / SPLP 6010 : 8RCRA 5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471			
Relinquished by: (Signature)		Received by: (Signature)		Date/Time		Relinquished by: (Signature)	
1		4-7-21		1540		4-7-21 3:20	
3						4	
5						6	



Environment Testing Xenco

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

Chain of Custody

Work Order No: _____

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Project Manager:	Bill to: (if different)
Company Name:	Company Name:
Address:	Address:
City, State ZIP:	City, State ZIP:
Phone:	Email:

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

Project Name:	RDU G1	Turn Around		Pres. Code	ANALYSIS REQUEST																Preservative Codes	
Project Number:		<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush																		None: NO	DI Water: H ₂ O
Project Location:		Due Date:																			Cool: Cool	MeOH: Me
Sampler's Name:	Tyler Dominguez	TAT starts the day received by the lab, if received by 4:30pm																			HCL: HC	HNO ₃ : HN
P.O. #:																					H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> No																			H ₃ PO ₄ : HP	
Samples Received In tact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID: <u>ENM</u>																			NaHSO ₄ : NABIS	
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor: <u>See Pg 1</u>																			Na ₂ S ₂ O ₅ : NASO ₃	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:																			Zn Acetate+NaOH: Zn	
Total Containers:		Corrected Temperature:																			NaOH+Ascorbic Acid: SANC	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont											Sample Comments					
FS11	5	4-7-21	11:35	2'	G	1											Chlorides (EPA 300.00)					
FS12	5		11:40	2'	G	1											BTEX (Method 8021)					
SW01	5		11:45	1'	G	1											TPH (Method 8015)					
SW02	5		11:50	1'	G	1																
SW03	5		11:55	1'	G	1																
SW04	5		12:00	1'	G	1																

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4-7-21 15:40	<i>[Signature]</i>	<i>[Signature]</i>	4-7-21 3:20

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- 13
- 14

Chain of Custody Record



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

Client Information (Sub Contract Lab)

Client Contact:
Shipping/Receiving
Company
Eurofins Xenco

Sampler
Phone

Lab PM
Kramer, Jessica

E-Mail
jessica.kramer@eurofins.com

Accreditations Required (See note)
NELAP - Louisiana, NELAP - Texas

Carrier Tracking No(s)
New Mexico

COC No.
890-154 1

Page
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Job #
890-495-1

Preservation Codes
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Ascorbic Acid
H - I-ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsHAc2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Address:
1211 W. Florida Ave.
City
Midland
State Zip:
TX, 79701
Phone:
432-704-5440(Tel)
Email:
Project Name:
RDU 61
Site:
SSOW#:

Due Date Requested
4/13/2021
TAT Requested (days):

Analysis Requested

Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)
300_ORGFM_28D/DI_LEACH Chloride
8015MOD_NM/8015NM_S_Prep Full TPH
8021B/5035FP_Calc BTEX

Total Number of containers

Special Instructions/Note:

Sample Identification - Client ID (Lab ID)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=soil, BT=Tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
FS01 (890-495-1)	4/7/21	10 45	Mountain	Solid	X	X	X	X	X	1	
FS02 (890-495-2)	4/7/21	10 50	Mountain	Solid	X	X	X	X	X	1	
FS03 (890-495-3)	4/7/21	10 55	Mountain	Solid	X	X	X	X	X	1	
FS04 (890-495-4)	4/7/21	11 00	Mountain	Solid	X	X	X	X	X	1	
FS05 (890-495-5)	4/7/21	11 05	Mountain	Solid	X	X	X	X	X	1	
FS06 (890-495-6)	4/7/21	11 10	Mountain	Solid	X	X	X	X	X	1	
FS07 (890-495-7)	4/7/21	11 15	Mountain	Solid	X	X	X	X	X	1	
FS08 (890-495-8)	4/7/21	11 20	Mountain	Solid	X	X	X	X	X	1	
FS09 (890-495-9)	4/7/21	11 25	Mountain	Solid	X	X	X	X	X	1	

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

Possible Hazard Identification

Unconfirmed
Deliverable Requested I II III IV Other (specify)

Primary Deliverable Rank: 2

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

Empty Kit Relinquished by

Date

Time

Method of Shipment:

Relinquished by: *See Cops 4.8.21*

Date/Time:

Company

Received by: *[Signature]*

Date/Time: 4-8-21 2:00 PM

Company

Relinquished by:

Date/Time:

Company

Received by:

Date/Time:

Company

Custody Seals Intact
Δ Yes Δ No

Custody Seal No

Coder Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-495-1

Login Number: 495

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-495-1

Login Number: 495

List Source: Eurofins Midland

List Number: 2

List Creation: 04/08/21 03:37 PM

Creator: Copeland, Tatiana

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-595-1
Client Project/Site: RDU 61

For:

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

Attn: Lynda Laumbach

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

Authorized for release by:
5/5/2021 9:10:48 AM

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

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

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

Client: WPX Energy Production LLC
Project/Site: RDU 61

Laboratory Job ID: 890-595-1

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Definitions/Glossary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Eurofins Xenco, Carlsbad

Case Narrative

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Job ID: 890-595-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-595-1

Receipt

The samples were received on 4/28/2021 4:34 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: DS01 (890-595-1), DS01A (890-595-2), DS02 (890-595-3), DS02A (890-595-4), DS03 (890-595-5), DS03A (890-595-6), DS04 (890-595-7) and DS04A (890-595-8).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS01

Lab Sample ID: 890-595-1

Date Collected: 04/27/21 10:00

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 01:16	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 01:16	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 01:16	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/29/21 16:15	04/30/21 01:16	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 01:16	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/29/21 16:15	04/30/21 01:16	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		04/29/21 16:15	04/30/21 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/29/21 16:15	04/30/21 01:16	1
1,4-Difluorobenzene (Surr)	105		70 - 130	04/29/21 16:15	04/30/21 01:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 22:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 22:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 22:12	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 22:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	04/30/21 08:50	05/02/21 22:12	1
o-Terphenyl	111		70 - 130	04/30/21 08:50	05/02/21 22:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.7		4.98		mg/Kg			05/04/21 16:55	1

Client Sample ID: DS01A

Lab Sample ID: 890-595-2

Date Collected: 04/27/21 10:05

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/29/21 16:15	04/30/21 01:37	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/29/21 16:15	04/30/21 01:37	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/29/21 16:15	04/30/21 01:37	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/29/21 16:15	04/30/21 01:37	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/29/21 16:15	04/30/21 01:37	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/29/21 16:15	04/30/21 01:37	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		04/29/21 16:15	04/30/21 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/29/21 16:15	04/30/21 01:37	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/29/21 16:15	04/30/21 01:37	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS01A

Lab Sample ID: 890-595-2

Date Collected: 04/27/21 10:05

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:16	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	04/30/21 08:50	05/02/21 23:16	1
o-Terphenyl	101		70 - 130	04/30/21 08:50	05/02/21 23:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	224		5.04		mg/Kg			05/04/21 17:10	1

Client Sample ID: DS02

Lab Sample ID: 890-595-3

Date Collected: 04/27/21 10:10

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 01:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 01:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 01:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/21 16:15	04/30/21 01:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 01:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/21 16:15	04/30/21 01:57	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		04/29/21 16:15	04/30/21 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	04/29/21 16:15	04/30/21 01:57	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/29/21 16:15	04/30/21 01:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/30/21 08:50	05/02/21 23:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/30/21 08:50	05/02/21 23:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/30/21 08:50	05/02/21 23:37	1
Total TPH	<49.8	U	49.8		mg/Kg		04/30/21 08:50	05/02/21 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	04/30/21 08:50	05/02/21 23:37	1
o-Terphenyl	108		70 - 130	04/30/21 08:50	05/02/21 23:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	164		5.02		mg/Kg			05/04/21 17:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS02A

Lab Sample ID: 890-595-4

Date Collected: 04/27/21 10:15

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 02:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 02:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 02:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/21 16:15	04/30/21 02:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 02:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/21 16:15	04/30/21 02:17	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/29/21 16:15	04/30/21 02:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/29/21 16:15	04/30/21 02:17	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/29/21 16:15	04/30/21 02:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:58	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/02/21 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/30/21 08:50	05/02/21 23:58	1
o-Terphenyl	112		70 - 130	04/30/21 08:50	05/02/21 23:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.8		4.98		mg/Kg			05/04/21 17:21	1

Client Sample ID: DS03

Lab Sample ID: 890-595-5

Date Collected: 04/27/21 10:20

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 04:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 04:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 04:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/21 16:15	04/30/21 04:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 04:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/21 16:15	04/30/21 04:48	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/29/21 16:15	04/30/21 04:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/29/21 16:15	04/30/21 04:48	1
1,4-Difluorobenzene (Surr)	104		70 - 130	04/29/21 16:15	04/30/21 04:48	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS03

Lab Sample ID: 890-595-5

Date Collected: 04/27/21 10:20

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:19	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/30/21 08:50	05/03/21 00:19	1
o-Terphenyl	112		70 - 130	04/30/21 08:50	05/03/21 00:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1370		49.9		mg/Kg			05/04/21 17:26	10

Client Sample ID: DS03A

Lab Sample ID: 890-595-6

Date Collected: 04/27/21 10:25

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 05:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 05:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 05:08	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/29/21 16:15	04/30/21 05:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/29/21 16:15	04/30/21 05:08	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/29/21 16:15	04/30/21 05:08	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		04/29/21 16:15	04/30/21 05:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	04/29/21 16:15	04/30/21 05:08	1
1,4-Difluorobenzene (Surr)	106		70 - 130	04/29/21 16:15	04/30/21 05:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:40	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 00:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/30/21 08:50	05/03/21 00:40	1
o-Terphenyl	100		70 - 130	04/30/21 08:50	05/03/21 00:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	99.9		5.00		mg/Kg			05/04/21 17:42	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS04

Lab Sample ID: 890-595-7

Date Collected: 04/27/21 10:30

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/21 16:15	04/30/21 05:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/21 16:15	04/30/21 05:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/21 16:15	04/30/21 05:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/21 16:15	04/30/21 05:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/21 16:15	04/30/21 05:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/21 16:15	04/30/21 05:29	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/29/21 16:15	04/30/21 05:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	04/29/21 16:15	04/30/21 05:29	1
1,4-Difluorobenzene (Surr)	109		70 - 130	04/29/21 16:15	04/30/21 05:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 01:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 01:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 01:01	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/03/21 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	04/30/21 08:50	05/03/21 01:01	1
o-Terphenyl	113		70 - 130	04/30/21 08:50	05/03/21 01:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.6		5.00		mg/Kg			05/04/21 17:47	1

Client Sample ID: DS04A

Lab Sample ID: 890-595-8

Date Collected: 04/27/21 10:35

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 05:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 05:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 05:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/21 16:15	04/30/21 05:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/21 16:15	04/30/21 05:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/21 16:15	04/30/21 05:49	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		04/29/21 16:15	04/30/21 05:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/29/21 16:15	04/30/21 05:49	1
1,4-Difluorobenzene (Surr)	105		70 - 130	04/29/21 16:15	04/30/21 05:49	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS04A

Lab Sample ID: 890-595-8

Date Collected: 04/27/21 10:35

Matrix: Solid

Date Received: 04/28/21 16:34

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/03/21 01:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/03/21 01:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/03/21 01:22	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 08:50	05/03/21 01:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	04/30/21 08:50	05/03/21 01:22	1
o-Terphenyl	102		70 - 130	04/30/21 08:50	05/03/21 01:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.8		5.02		mg/Kg			05/04/21 17:52	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-595-1	DS01	102	105
890-595-2	DS01A	107	107
890-595-3	DS02	108	107
890-595-4	DS02A	107	107
890-595-5	DS03	101	104
890-595-6	DS03A	108	106
890-595-7	DS04	119	109
890-595-8	DS04A	105	105
LCS 880-2388/1-A	Lab Control Sample	99	106
LCSD 880-2388/2-A	Lab Control Sample Dup	101	107
MB 880-2388/5-A	Method Blank	100	101
MB 880-2471/8	Method Blank	100	101
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-595-1	DS01	115	111
890-595-1 MS	DS01	99	91
890-595-1 MSD	DS01	103	90
890-595-2	DS01A	105	101
890-595-3	DS02	111	108
890-595-4	DS02A	114	112
890-595-5	DS03	114	112
890-595-6	DS03A	99	100
890-595-7	DS04	115	113
890-595-8	DS04A	98	102
LCS 880-2518/2-A	Lab Control Sample	113	101
LCSD 880-2518/3-A	Lab Control Sample Dup	112	103
MB 880-2518/1-A	Method Blank	101	103
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2388/5-A

Matrix: Solid

Analysis Batch: 2471

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/21 11:00	04/29/21 23:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/21 11:00	04/29/21 23:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/21 11:00	04/29/21 23:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/21 11:00	04/29/21 23:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/21 11:00	04/29/21 23:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/21 11:00	04/29/21 23:26	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/29/21 11:00	04/29/21 23:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	04/29/21 11:00	04/29/21 23:26	1
1,4-Difluorobenzene (Surr)	101		70 - 130	04/29/21 11:00	04/29/21 23:26	1

Lab Sample ID: LCS 880-2388/1-A

Matrix: Solid

Analysis Batch: 2471

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1030		mg/Kg		103	70 - 130
Toluene	0.100	0.1040		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1066		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2180		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1047		mg/Kg		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-2388/2-A

Matrix: Solid

Analysis Batch: 2471

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2388

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1059		mg/Kg		106	70 - 130	3	35
Toluene	0.100	0.1072		mg/Kg		107	70 - 130	3	35
Ethylbenzene	0.100	0.1097		mg/Kg		110	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2246		mg/Kg		112	70 - 130	3	35
o-Xylene	0.100	0.1091		mg/Kg		109	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: MB 880-2471/8

Matrix: Solid

Analysis Batch: 2471

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			04/29/21 11:51	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

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

Lab Sample ID: MB 880-2471/8

Matrix: Solid

Analysis Batch: 2471

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg			04/29/21 11:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			04/29/21 11:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			04/29/21 11:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			04/29/21 11:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			04/29/21 11:51	1
Total BTEX	<0.00400	U	0.00400		mg/Kg			04/29/21 11:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		04/29/21 11:51	1
1,4-Difluorobenzene (Surr)	101		70 - 130		04/29/21 11:51	1

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

Lab Sample ID: MB 880-2518/1-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2518

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/02/21 21:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/02/21 21:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/02/21 21:08	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 08:50	05/02/21 21:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/30/21 08:50	05/02/21 21:08	1
o-Terphenyl	103		70 - 130	04/30/21 08:50	05/02/21 21:08	1

Lab Sample ID: LCS 880-2518/2-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1115		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1074		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	101		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

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

Lab Sample ID: LCSD 880-2518/3-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	947.2		mg/Kg		95	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	1000	1094		mg/Kg		109	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	112		70 - 130						
o-Terphenyl	103		70 - 130						

Lab Sample ID: 890-595-1 MS

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: DS01

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	948.9		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1094		mg/Kg		110	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	99		70 - 130								
o-Terphenyl	91		70 - 130								

Lab Sample ID: 890-595-1 MSD

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: DS01

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1115		mg/Kg		112	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1109		mg/Kg		111	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	103		70 - 130								
o-Terphenyl	90		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2564/1-A

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/21 16:39	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-2564/2-A

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	255.1		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-2564/3-A

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-595-1 MS

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: DS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	18.7		249	256.2		mg/Kg		95	90 - 110		

Lab Sample ID: 890-595-1 MSD

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: DS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18.7		249	256.5		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

GC VOA

Prep Batch: 2388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-1	DS01	Total/NA	Solid	5035	
890-595-2	DS01A	Total/NA	Solid	5035	
890-595-3	DS02	Total/NA	Solid	5035	
890-595-4	DS02A	Total/NA	Solid	5035	
890-595-5	DS03	Total/NA	Solid	5035	
890-595-6	DS03A	Total/NA	Solid	5035	
890-595-7	DS04	Total/NA	Solid	5035	
890-595-8	DS04A	Total/NA	Solid	5035	
MB 880-2388/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2388/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2388/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-1	DS01	Total/NA	Solid	8021B	2388
890-595-2	DS01A	Total/NA	Solid	8021B	2388
890-595-3	DS02	Total/NA	Solid	8021B	2388
890-595-4	DS02A	Total/NA	Solid	8021B	2388
890-595-5	DS03	Total/NA	Solid	8021B	2388
890-595-6	DS03A	Total/NA	Solid	8021B	2388
890-595-7	DS04	Total/NA	Solid	8021B	2388
890-595-8	DS04A	Total/NA	Solid	8021B	2388
MB 880-2388/5-A	Method Blank	Total/NA	Solid	8021B	2388
MB 880-2471/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-2388/1-A	Lab Control Sample	Total/NA	Solid	8021B	2388
LCSD 880-2388/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2388

GC Semi VOA

Prep Batch: 2518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-1	DS01	Total/NA	Solid	8015NM Prep	
890-595-2	DS01A	Total/NA	Solid	8015NM Prep	
890-595-3	DS02	Total/NA	Solid	8015NM Prep	
890-595-4	DS02A	Total/NA	Solid	8015NM Prep	
890-595-5	DS03	Total/NA	Solid	8015NM Prep	
890-595-6	DS03A	Total/NA	Solid	8015NM Prep	
890-595-7	DS04	Total/NA	Solid	8015NM Prep	
890-595-8	DS04A	Total/NA	Solid	8015NM Prep	
MB 880-2518/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2518/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-595-1 MS	DS01	Total/NA	Solid	8015NM Prep	
890-595-1 MSD	DS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-1	DS01	Total/NA	Solid	8015B NM	2518
890-595-2	DS01A	Total/NA	Solid	8015B NM	2518
890-595-3	DS02	Total/NA	Solid	8015B NM	2518
890-595-4	DS02A	Total/NA	Solid	8015B NM	2518

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QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

GC Semi VOA (Continued)

Analysis Batch: 2600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-5	DS03	Total/NA	Solid	8015B NM	2518
890-595-6	DS03A	Total/NA	Solid	8015B NM	2518
890-595-7	DS04	Total/NA	Solid	8015B NM	2518
890-595-8	DS04A	Total/NA	Solid	8015B NM	2518
MB 880-2518/1-A	Method Blank	Total/NA	Solid	8015B NM	2518
LCS 880-2518/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2518
LCSD 880-2518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2518
890-595-1 MS	DS01	Total/NA	Solid	8015B NM	2518
890-595-1 MSD	DS01	Total/NA	Solid	8015B NM	2518

HPLC/IC

Leach Batch: 2564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-1	DS01	Soluble	Solid	DI Leach	
890-595-2	DS01A	Soluble	Solid	DI Leach	
890-595-3	DS02	Soluble	Solid	DI Leach	
890-595-4	DS02A	Soluble	Solid	DI Leach	
890-595-5	DS03	Soluble	Solid	DI Leach	
890-595-6	DS03A	Soluble	Solid	DI Leach	
890-595-7	DS04	Soluble	Solid	DI Leach	
890-595-8	DS04A	Soluble	Solid	DI Leach	
MB 880-2564/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2564/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2564/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-595-1 MS	DS01	Soluble	Solid	DI Leach	
890-595-1 MSD	DS01	Soluble	Solid	DI Leach	

Analysis Batch: 2689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-595-1	DS01	Soluble	Solid	300.0	2564
890-595-2	DS01A	Soluble	Solid	300.0	2564
890-595-3	DS02	Soluble	Solid	300.0	2564
890-595-4	DS02A	Soluble	Solid	300.0	2564
890-595-5	DS03	Soluble	Solid	300.0	2564
890-595-6	DS03A	Soluble	Solid	300.0	2564
890-595-7	DS04	Soluble	Solid	300.0	2564
890-595-8	DS04A	Soluble	Solid	300.0	2564
MB 880-2564/1-A	Method Blank	Soluble	Solid	300.0	2564
LCS 880-2564/2-A	Lab Control Sample	Soluble	Solid	300.0	2564
LCSD 880-2564/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2564
890-595-1 MS	DS01	Soluble	Solid	300.0	2564
890-595-1 MSD	DS01	Soluble	Solid	300.0	2564

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS01

Lab Sample ID: 890-595-1

Date Collected: 04/27/21 10:00

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 01:16	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/02/21 22:12	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 16:55	WP	XM

Client Sample ID: DS01A

Lab Sample ID: 890-595-2

Date Collected: 04/27/21 10:05

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 01:37	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/02/21 23:16	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:10	WP	XM

Client Sample ID: DS02

Lab Sample ID: 890-595-3

Date Collected: 04/27/21 10:10

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 01:57	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/02/21 23:37	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:16	WP	XM

Client Sample ID: DS02A

Lab Sample ID: 890-595-4

Date Collected: 04/27/21 10:15

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 02:17	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/02/21 23:58	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:21	WP	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Client Sample ID: DS03

Lab Sample ID: 890-595-5

Date Collected: 04/27/21 10:20

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 04:48	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 00:19	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		10	2689	05/04/21 17:26	WP	XM

Client Sample ID: DS03A

Lab Sample ID: 890-595-6

Date Collected: 04/27/21 10:25

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 05:08	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 00:40	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:42	WP	XM

Client Sample ID: DS04

Lab Sample ID: 890-595-7

Date Collected: 04/27/21 10:30

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 05:29	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 01:01	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:47	WP	XM

Client Sample ID: DS04A

Lab Sample ID: 890-595-8

Date Collected: 04/27/21 10:35

Matrix: Solid

Date Received: 04/28/21 16:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2388	04/29/21 16:15	KL	XM
Total/NA	Analysis	8021B		1	2471	04/30/21 05:49	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 01:22	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:52	WP	XM

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-595-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-595-1	DS01	Solid	04/27/21 10:00	04/28/21 16:34	- 0.5
890-595-2	DS01A	Solid	04/27/21 10:05	04/28/21 16:34	- 1
890-595-3	DS02	Solid	04/27/21 10:10	04/28/21 16:34	- 0.5
890-595-4	DS02A	Solid	04/27/21 10:15	04/28/21 16:34	- 1
890-595-5	DS03	Solid	04/27/21 10:20	04/28/21 16:34	- 0.5
890-595-6	DS03A	Solid	04/27/21 10:25	04/28/21 16:34	- 1
890-595-7	DS04	Solid	04/27/21 10:30	04/28/21 16:34	- 0.5
890-595-8	DS04A	Solid	04/27/21 10:35	04/28/21 16:34	- 1

Eurofins Xenco, Carlsbad



Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 302-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

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Page 1 of 1

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

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

Project Name:	RDU 61	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:		Due Date:			
Sample's Name:	Tyler Dominguez	TAT starts the day received by the lab. If received by 4:30pm			
PO #:		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
SAMPLE RECEIPT		Thermometer ID:	21011-007		
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	3.2		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temperature:	3.0		
Total Containers:					



890-595 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
DS01	S	4-27-21	10:00	0.5'	G	1	Chlorides (EPA 300.0)		None: NO	DI Water: H ₂ O
DS01A	S		10:05	1'			BTEX (Method 8021)		Cool: COOL	MeOH: Me
DS02	S		10:10	0.5'			TPH (Method 8015)		HCL: HC	HNO ₃ : HN
DS02A	S		10:15	1'					H ₂ SO ₄ : H ₂	NaOH: Na
DS03	S		10:20	0.5'					H ₃ PO ₄ : HP	
DS03A	S		10:25	1'					NaHSO ₄ : NABIS	
DS04	S		10:30	0.5'					Na ₂ S ₂ O ₅ : NaSO ₃	Zn Acetate+NaOH: Zn
DS04A	S		10:35	1'					NaOH+Ascorbic Acid: SAPC	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4-28-21 10:34			

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

Chain of Custody Record



eurolins
Environment Testing
America

Client Information (Sub Contract Lab)		Sampler		Lab PM		Carrier Tracking No(s)		COC No:																			
Client Contact:		Phone:		Kramer Jessica		State of Origin		890-190-1																			
Shipping/Receiving		E-Mail		jessica.kramer@eurofinset.com		New Mexico		Page: 1 of 1																			
Company: Eurofins Xenco		Accreditations Required (See note)		NELAP - Louisiana NELAP - Texas		Job #:		890-595-1																			
Address: 1211 W Florida Ave.		Due Date Requested		5/4/2021		Analysis Requested		Preservation Codes																			
City: Midland		TAT Requested (days)						A. HCL B. NaOH C. Zn Acetate D. Nitric Acid E. NaHSO4 F. MeOH G. Amchlor H. Ascorbic Acid I. Ice J. DI Water K. EDTA L. EDA M. Hexane N. None O. AsNaO2 P. Na2O4S Q. Na2SO3 R. Na2S2O3 S. H2SO4 T. TSP Dodecylhydrate U. Acetone V. MCAA W. pH 4-5 Z. other (specify)																			
State Zip: TX 79701		PO #:																									
Phone: 432-704-5440(Tel)		WO #:																									
Email:		Project #:		88000204																							
Project Name: RDU 61		SSOV#:																									
Site:																											
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=Water, S=Solid, O=Other, N=NAF)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		300_ORGFM_28D/DI_LEACH Chloride		8015MOD_NM/8015NM_S_Prep Full TPH		8021B/5035FP_Calc BTEX		Total Number of containers		Special Instructions/Note.			
DS01 (890-595-1)				4/27/21		10 00		Solid		Solid		X		X		X		X		X		X		1			
DS01A (890-595-2)				4/27/21		10 05		Solid		Solid		X		X		X		X		X		X		1			
DS02 (890-595-3)				4/27/21		10 10		Solid		Solid		X		X		X		X		X		X		1			
DS02A (890-595-4)				4/27/21		10 15		Solid		Solid		X		X		X		X		X		X		1			
DS03 (890-595-5)				4/27/21		10 20		Solid		Solid		X		X		X		X		X		X		1			
DS03A (890-595-6)				4/27/21		10 25		Solid		Solid		X		X		X		X		X		X		1			
DS04 (890-595-7)				4/27/21		10 30		Solid		Solid		X		X		X		X		X		X		1			
DS04A (890-595-8)				4/27/21		10 35		Solid		Solid		X		X		X		X		X		X		1			
<p>Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.</p>																											
Possible Hazard Identification																											
Unconfirmed																											
Deliverable Requested I II III IV Other (specify)																											
Primary Deliverable Rank 2																											
Empty Kit Relinquished by																											
Relinquished by: [Signature] Date/Time: 4/29/21 Company: [Blank] Received by: [Signature] Date/Time: 4/29/21 Company: [Blank]																											
Relinquished by: [Blank] Date/Time: [Blank] Company: [Blank] Received by: [Blank] Date/Time: [Blank] Company: [Blank]																											
Custody Seals Intact Δ Yes Δ No Custody Seal No Cooler Temperature(s) °C and Other Remarks																											

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-595-1

Login Number: 595

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-595-1

Login Number: 595

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/29/21 04:04 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-772-1
Client Project/Site: RDU 61

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

Attn: Lynda Laumbach

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

Authorized for release by:
6/8/2021 2:51:39 PM

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

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

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

Client: WPX Energy Production LLC
Project/Site: RDU 61

Laboratory Job ID: 890-772-1

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Definitions/Glossary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Job ID: 890-772-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative	
Job Narrative 890-772-1	

Receipt

The samples were received on 6/3/2021 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Client Sample ID: DS05

Lab Sample ID: 890-772-1

Date Collected: 06/01/21 10:00

Matrix: Solid

Date Received: 06/03/21 08:37

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 17:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 17:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 17:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 17:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 17:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 17:16	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	06/04/21 08:00	06/04/21 17:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130	06/04/21 08:00	06/04/21 17:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 22:43	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 22:43	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 22:43	1
Total TPH	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	06/07/21 14:43	06/07/21 22:43	1
o-Terphenyl	92		70 - 130	06/07/21 14:43	06/07/21 22:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2810		24.8		mg/Kg			06/07/21 14:07	5

Client Sample ID: DS05A

Lab Sample ID: 890-772-2

Date Collected: 06/01/21 10:05

Matrix: Solid

Date Received: 06/03/21 08:37

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 17:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 17:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 17:37	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		06/04/21 08:00	06/04/21 17:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 17:37	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/04/21 08:00	06/04/21 17:37	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		06/04/21 08:00	06/04/21 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	06/04/21 08:00	06/04/21 17:37	1
1,4-Difluorobenzene (Surr)	102		70 - 130	06/04/21 08:00	06/04/21 17:37	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Client Sample ID: DS05A

Lab Sample ID: 890-772-2

Date Collected: 06/01/21 10:05

Matrix: Solid

Date Received: 06/03/21 08:37

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 23:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 23:46	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 23:46	1
Total TPH	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/07/21 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	06/07/21 14:43	06/07/21 23:46	1
o-Terphenyl	101		70 - 130	06/07/21 14:43	06/07/21 23:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	483		4.96		mg/Kg			06/07/21 14:12	1

Client Sample ID: DS06

Lab Sample ID: 890-772-3

Date Collected: 06/01/21 10:10

Matrix: Solid

Date Received: 06/03/21 08:37

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 08:00	06/04/21 17:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 08:00	06/04/21 17:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 08:00	06/04/21 17:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 08:00	06/04/21 17:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 08:00	06/04/21 17:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 08:00	06/04/21 17:57	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 08:00	06/04/21 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	06/04/21 08:00	06/04/21 17:57	1
1,4-Difluorobenzene (Surr)	100		70 - 130	06/04/21 08:00	06/04/21 17:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/08/21 00:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/08/21 00:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/08/21 00:06	1
Total TPH	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/08/21 00:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	06/07/21 14:43	06/08/21 00:06	1
o-Terphenyl	118		70 - 130	06/07/21 14:43	06/08/21 00:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	208		4.99		mg/Kg			06/07/21 14:17	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Client Sample ID: DS06A

Lab Sample ID: 890-772-4

Date Collected: 06/01/21 10:15

Matrix: Solid

Date Received: 06/03/21 08:37

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 18:17	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 18:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 18:17	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/04/21 08:00	06/04/21 18:17	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 18:17	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/04/21 08:00	06/04/21 18:17	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		06/04/21 08:00	06/04/21 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	06/04/21 08:00	06/04/21 18:17	1
1,4-Difluorobenzene (Surr)	100		70 - 130	06/04/21 08:00	06/04/21 18:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/08/21 00:27	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/08/21 00:27	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/08/21 00:27	1
Total TPH	<49.8	U	49.8		mg/Kg		06/07/21 14:43	06/08/21 00:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	06/07/21 14:43	06/08/21 00:27	1
o-Terphenyl	101		70 - 130	06/07/21 14:43	06/08/21 00:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	217		4.97		mg/Kg			06/07/21 14:22	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-772-1	DS05	114	104
890-772-2	DS05A	111	102
890-772-3	DS06	110	100
890-772-4	DS06A	115	100
LCS 880-3777/1-A	Lab Control Sample	115	104
LCSD 880-3777/2-A	Lab Control Sample Dup	112	104
MB 880-3777/5-A	Method Blank	88	92
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-772-1	DS05	95	92
890-772-1 MS	DS05	90	81
890-772-1 MSD	DS05	97	85
890-772-2	DS05A	102	101
890-772-3	DS06	121	118
890-772-4	DS06A	102	101
LCS 880-3863/2-A	Lab Control Sample	97	87
LCSD 880-3863/3-A	Lab Control Sample Dup	99	92
MB 880-3863/1-A	Method Blank	120	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3777/5-A

Matrix: Solid

Analysis Batch: 3787

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	06/04/21 08:00	06/04/21 12:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	06/04/21 08:00	06/04/21 12:09	1

Lab Sample ID: LCS 880-3777/1-A

Matrix: Solid

Analysis Batch: 3787

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09657		mg/Kg		97	70 - 130
Toluene	0.100	0.09386		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09879		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2112		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1071		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3777/2-A

Matrix: Solid

Analysis Batch: 3787

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09276		mg/Kg		93	70 - 130	4	35
Toluene	0.100	0.08908		mg/Kg		89	70 - 130	5	35
Ethylbenzene	0.100	0.09228		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1962		mg/Kg		98	70 - 130	7	35
o-Xylene	0.100	0.09994		mg/Kg		100	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

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

Lab Sample ID: MB 880-3863/1-A

Matrix: Solid

Analysis Batch: 3855

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Total TPH	<50.0	U	50.0		mg/Kg		06/07/21 14:43	06/07/21 21:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	06/07/21 14:43	06/07/21 21:40	1
o-Terphenyl	116		70 - 130	06/07/21 14:43	06/07/21 21:40	1

Lab Sample ID: LCS 880-3863/2-A

Matrix: Solid

Analysis Batch: 3855

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	809.9		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	946.9		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: LCSD 880-3863/3-A

Matrix: Solid

Analysis Batch: 3855

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	879.0		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	992.3		mg/Kg		99	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: 890-772-1 MS

Matrix: Solid

Analysis Batch: 3855

Client Sample ID: DS05

Prep Type: Total/NA

Prep Batch: 3863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	840.1		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	999	964.0		mg/Kg		96	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

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

Lab Sample ID: 890-772-1 MS

Matrix: Solid

Analysis Batch: 3855

Client Sample ID: DS05

Prep Type: Total/NA

Prep Batch: 3863

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 890-772-1 MSD

Matrix: Solid

Analysis Batch: 3855

Client Sample ID: DS05

Prep Type: Total/NA

Prep Batch: 3863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	929.5		mg/Kg		93	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	1069		mg/Kg		107	70 - 130	10	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	85		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3793/1-A

Matrix: Solid

Analysis Batch: 3853

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/07/21 13:09	1

Lab Sample ID: LCS 880-3793/2-A

Matrix: Solid

Analysis Batch: 3853

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	252.2		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-3793/3-A

Matrix: Solid

Analysis Batch: 3853

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.4		mg/Kg		101	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

GC VOA

Prep Batch: 3777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-772-1	DS05	Total/NA	Solid	5035	
890-772-2	DS05A	Total/NA	Solid	5035	
890-772-3	DS06	Total/NA	Solid	5035	
890-772-4	DS06A	Total/NA	Solid	5035	
MB 880-3777/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-772-1	DS05	Total/NA	Solid	8021B	3777
890-772-2	DS05A	Total/NA	Solid	8021B	3777
890-772-3	DS06	Total/NA	Solid	8021B	3777
890-772-4	DS06A	Total/NA	Solid	8021B	3777
MB 880-3777/5-A	Method Blank	Total/NA	Solid	8021B	3777
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	8021B	3777
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3777

GC Semi VOA

Analysis Batch: 3855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-772-1	DS05	Total/NA	Solid	8015B NM	3863
890-772-2	DS05A	Total/NA	Solid	8015B NM	3863
890-772-3	DS06	Total/NA	Solid	8015B NM	3863
890-772-4	DS06A	Total/NA	Solid	8015B NM	3863
MB 880-3863/1-A	Method Blank	Total/NA	Solid	8015B NM	3863
LCS 880-3863/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3863
LCSD 880-3863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3863
890-772-1 MS	DS05	Total/NA	Solid	8015B NM	3863
890-772-1 MSD	DS05	Total/NA	Solid	8015B NM	3863

Prep Batch: 3863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-772-1	DS05	Total/NA	Solid	8015NM Prep	
890-772-2	DS05A	Total/NA	Solid	8015NM Prep	
890-772-3	DS06	Total/NA	Solid	8015NM Prep	
890-772-4	DS06A	Total/NA	Solid	8015NM Prep	
MB 880-3863/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3863/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-772-1 MS	DS05	Total/NA	Solid	8015NM Prep	
890-772-1 MSD	DS05	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-772-1	DS05	Soluble	Solid	DI Leach	
890-772-2	DS05A	Soluble	Solid	DI Leach	
890-772-3	DS06	Soluble	Solid	DI Leach	
890-772-4	DS06A	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

HPLC/IC (Continued)

Leach Batch: 3793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-772-1	DS05	Soluble	Solid	300.0	3793
890-772-2	DS05A	Soluble	Solid	300.0	3793
890-772-3	DS06	Soluble	Solid	300.0	3793
890-772-4	DS06A	Soluble	Solid	300.0	3793
MB 880-3793/1-A	Method Blank	Soluble	Solid	300.0	3793
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	300.0	3793
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3793

Lab Chronicle

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Client Sample ID: DS05

Lab Sample ID: 890-772-1

Date Collected: 06/01/21 10:00

Matrix: Solid

Date Received: 06/03/21 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	3787	06/04/21 17:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			3855	06/07/21 22:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5			3853	06/07/21 14:07	CH	XEN MID

Client Sample ID: DS05A

Lab Sample ID: 890-772-2

Date Collected: 06/01/21 10:05

Matrix: Solid

Date Received: 06/03/21 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	3787	06/04/21 17:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			3855	06/07/21 23:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1			3853	06/07/21 14:12	CH	XEN MID

Client Sample ID: DS06

Lab Sample ID: 890-772-3

Date Collected: 06/01/21 10:10

Matrix: Solid

Date Received: 06/03/21 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	3787	06/04/21 17:57	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			3855	06/08/21 00:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1			3853	06/07/21 14:17	CH	XEN MID

Client Sample ID: DS06A

Lab Sample ID: 890-772-4

Date Collected: 06/01/21 10:15

Matrix: Solid

Date Received: 06/03/21 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	3787	06/04/21 18:17	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			3855	06/08/21 00:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1			3853	06/07/21 14:22	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WPX Energy Production LLC
Project/Site: RDU 61

Job ID: 890-772-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-772-1	DS05	Solid	06/01/21 10:00	06/03/21 08:37	- 1
890-772-2	DS05A	Solid	06/01/21 10:05	06/03/21 08:37	- 2
890-772-3	DS06	Solid	06/01/21 10:10	06/03/21 08:37	- 1
890-772-4	DS06A	Solid	06/01/21 10:15	06/03/21 08:37	- 2



Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-333-
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1266
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____




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

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

[illegible]

Total 2002.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Tl	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010	:	8RCRA	5b	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Tl	U												
<p>Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the costs of samples and shall not assume any responsibility for any losses or expenses incurred by the client's such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.</p>																																
Hg: 1631 / 245.1 / 7470 / 7471																																

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6-3-21 0837			
2						
3						
4						
5						

Revised Date 08/25/2020 Rev 2020.2



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Environment Testing

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

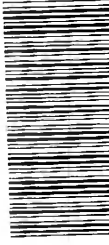
Chain of Custody

Work Order No:

Page _____ of _____
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Project Manager:	Lynda Laumbach	Billing:	different	→
Company Name:	Wpx Energy Permian LLC	Company Name:		→
Address:	5315 Budde Vista Dr	Address:		→
City, State ZIP:	Carlsbad, NM 88720	City, State ZIP:		→
Phone:	575-725-1647	Email:	Lynda.Laumbach@wpxenergy.com	

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

Project Name:	IV Mawink	Turn Around	Pres. Codes	ANALYSIS REQUEST		Preservative Codes None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HCl HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
Project Number:		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush				
Project Location:		Due Date:				
Sampler's Name:	Diez Dominguez	TAT starts the day received by the lab, if received by 4:30pm				
PO #:						
SAMPLE RECEIPT		Temp Blank:	Wet Ice:			
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2111111-001			
Cooler Custody Seals:	Yes: <input checked="" type="checkbox"/> No: N/A	Correction Factor:	1.6			
Sample Custody Seals:	Yes: <input checked="" type="checkbox"/> No: N/A	Temperature Reading:	1.4			
Total Containers:		Corrected Temperature:	-0.2			
Parameters						
Oxides (EPA 300.00) EX (Method 8021) (TX-Extended 1005)						

[illegible]

	200.8 / 6020:	200.8 / 6020:
Total 200.7 / 6010	8RCRA 13PPM	Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCPL/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471	

Notice: Signature of this document and replacement of samples constitutes a valid purchase order from client to Eurofins, Xcelom, its affiliates, and subsidiaries. It is subject to standard terms and conditions of service. Eurofins Xcelom will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xcelom. A minimum charge of \$350.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xcelom, but not analyzed. These terms will be enforced unless previously negotiated.

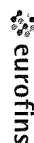
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		6-3-21 0837			

Revised Date: 08/25/2020 Rev.: 2020.2

Eurofins Xenco, Carlsbad

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

Chain of Custody Record



Environment Testing
America

[illegible]

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-772-1

Login Number: 772

List Source: Eurofins Xenco, Carlsbad

List Number: 1

Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: WPX Energy Production LLC

Job Number: 890-772-1

Login Number: 772

List Source: Eurofins Xenco, Midland

List Number: 2

List Creation: 06/04/21 11:10 AM

Creator: Copeland, Tatiana

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

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

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

CONDITIONS

Action 84047

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 84047
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved. Please implement 19.15.29.13 NMAC when completing P&A.	3/30/2022