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	NRM2014147987
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 32.09264 Longitude -103.94825
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: North Brushy Draw Federal 35 #002H	Site Type: Production Facility
Date Release Discovered: 05/14/2020	API# *(if applicable)*: 30-015-40006

Unit Letter	Section	Township	Range	County
A	35	25S	29E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): 30	Volume Recovered (bbls): 10
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:
At 16:00 hours, water transfer polyline failed outside of containment and released produced water onto the northeast side of the pad.

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

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014147987
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Quantity was greater than 25bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was given by email on 05/15/2020 to Mike Bratcher, Jim Griswold, Christina Venegas, and Robert Hamlet.	

Initial Response

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

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

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

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

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 05/19/2020

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

OCD Only

Received by: Ramona Marcus Date: 5/20/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014147987
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM201414798
District RP	
Facility ID	
Application ID	

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 11/12/2020

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

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014147987
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- [X] Detailed description of proposed remediation technique
- [X] Scaled sitemap with GPS coordinates showing delineation points
- [X] Estimated volume of material to be remediated
- [X] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [X] 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: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 11/12/2020

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

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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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	NRM2020657799
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC.	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: james.raley@wpxenergy.com	Incident # *(assigned by OCD)*
Contact mailing address: 5315 Buena Vista Dr., Carlsbad, NM 88220	

Location of Release Source

Latitude 32.09270 Longitude -103.94731
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: NORTH BRUSHY DRAW FEDERAL 35 #009H	Site Type: Production Facility
Date Release Discovered: 7/13/2020	API# *(if applicable): 30-015-42220*

Unit Letter	Section	Township	Range	County
A	35	25S	29E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 8	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Produced water transfer line developed leak, allowing approx. 8 bbls of produced water to impact soils along edge of pad.

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2020657799
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
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

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

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

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

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

Printed Name: Jim Raley
Title: Environmental Specialist

Signature: Jim Raley
Date: 7/22/2020

email: james.raley@wpxenergy.com
Telephone: 575-689-7597

OCD Only

Received by: Ramona Marcus
Date: 7/24/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2020657799
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM202065779
District RP	
Facility ID	
Application ID	

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 11/12/2020

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2020657799
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- [X] Detailed description of proposed remediation technique
- [X] Scaled sitemap with GPS coordinates showing delineation points
- [X] Estimated volume of material to be remediated
- [X] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [X] 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: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 11/12/2020

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

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

November 12, 2020
Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210

Re: North Brushy Draw Federal 35 #002H, #009H Remediation Plan (NRM2014147987, NRM2020657799)

Mr. Bratcher,

This report summarizes the remediation activities and proposed plan for remediation and closure of the Incidents at the North Brushy Federal 35 #002H/ #009H well pad (Site). The topographic map of the Site is provided as Figure 01. On May 14, 2020, a produced water line outside secondary lined containment cracked releasing 30 barrels (bbls) of produced water onto the pad surface. 10 bbls of produced water was recovered using a vacuum truck. On July 13, 2020, a produced water line from the North Brushy Draw Federal 35 #009H running along the eastern edge of the #002H pad failed at a heat-weld joint releasing 8 barrels (bbls) of produced water onto the pad surface with no bbls recovered.

Well Location: North Brushy Federal 35 #002H/ #009H
API #:30-015-42290, 30-015-42220
NMOCD Reference #: NRM2014147987, NRM2020657799
Site Location Description: Unit Letter A, Section 35, Township 25S, Range 29E
Release Latitude/Longitude: N32.0927, W103.94731
Land Jurisdiction: Federal
Estimated Depth to Groundwater: >100 feet

NMOCD Site Characterization Standards
The Closure criteria of this site was determined based on the New Mexico Administrative Code (NMAC) Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12). The Site is located within 300 feet of an OSE waterbody and is set within an approximated 100 Year flood plain. Based on the criteria outlined above, the closure criteria from the NMOCD Table 1 are as follows:

- 600 milligrams per kilogram (mg/kg) Chloride
- 50 mg/kg Benzene, Toluene, Ethylbenzene, and xylenes (BTEX)
- 10 mg/kg Benzene
- 100 mg/kg Total Petroleum Hydrocarbons (TPH)

Field Activities
On May 15, 2020, WPX personnel were onsite to confirm the release extent and collect initial samples SS01-SS03. The area of interest is located on Figure 02. On May 20, 2020 WPX personnel were onsite to collect delineation samples DS01-DS07 outside of the release area. The area was scraped to address any areas with crusted salts.

During the week of July 13 through 17, 2020 a consultant was utilized to excavate and collect samples after incident #: NRM2020657799 occurred. Composite samples of the excavation were collected on July 17, 2020.

Sampling Activities
Floor and sidewall samples were collected via 5-point composite sampling over areas no greater than 200 square feet across the excavation area. Discrete samples were taken to delineate the area outside of the release extent. All samples were taken with decontaminated equipment, jarred in precleaned glass soil jars, labelled with sample name, date, Site name, and depth, and immediately placed on ice to lower sample temperatures below 4° Celsius, adhering to chain of custodies of Hall and Xenco Laboratories. Samples were analyzed for Chlorides via Method EPA 300.0, TPH via Method 8015M, and BTEX via Method 8021B.

Laboratory Analytical Results
The laboratory analytical results for the current excavation of impacted soils confirmed that floor sample BS20-04 was above the Standard threshold for chlorides. The sample locations are depicted in Figure 03. Discrete delineation samples outline the release area of Incident #: NRM2014147987 and results confirmed that only DS07 showed elevated chlorides. All sample results are summarized in Table 01 and complete lab results are provided in Attachment 01.

- Chloride analysis ranged from below the Laboratory detectable limit to 17,200 mg/kg
- BTEX analysis was below the Laboratory detectable limit
- Benzene analysis was below the Laboratory detectable limit
- TPH analysis was below the Laboratory detectable limit

Proposed Workplan
The current volume of contaminated soil excavated is equivalent to 200 cubic yards. WPX plans on excavating another 1,200 cubic yards to address the release on the Site surface to total 1,400 cubic yards. Proposed excavation area is outlined in Figure 04. This number is contingent on an average depth of four feet with contamination greater than 600 mg/kg chlorides. Confirmation samples will be taken around DS07 to show compliance with Site remediation standards. All samples will be analyzed for Chlorides via Method EPA 300.0, TPH via Method 8015M, and BTEX via Method 8021B. All contaminated soil will be hauled to disposal at R-360 Red Bluff Facility, 5053 US Hwy 285, Orla, TX 79770.

Proposed Schedule
WPX plans to start this project as soon as this remediation plan is approved. Once started, the project, including excavation, sampling, backfill, and report will be completed by February 8, 2020. If any questions or further information is warranted, please do not hesitate to contact me by cell phone at (575) 725-1647 or by email at Lynda.Laumbach@wpxenergy.com.

Best regards,

Lynda Laumbach
Environmental Specialist

CC: Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 01 Topography
Figure 02 Field Map and Delineation Samples
Figure 03 Excavation
Figure 04 Remediation Plan
Table 01
Attachment 01 Analytical Results

Figures

WPXENERGY

Legend

Site

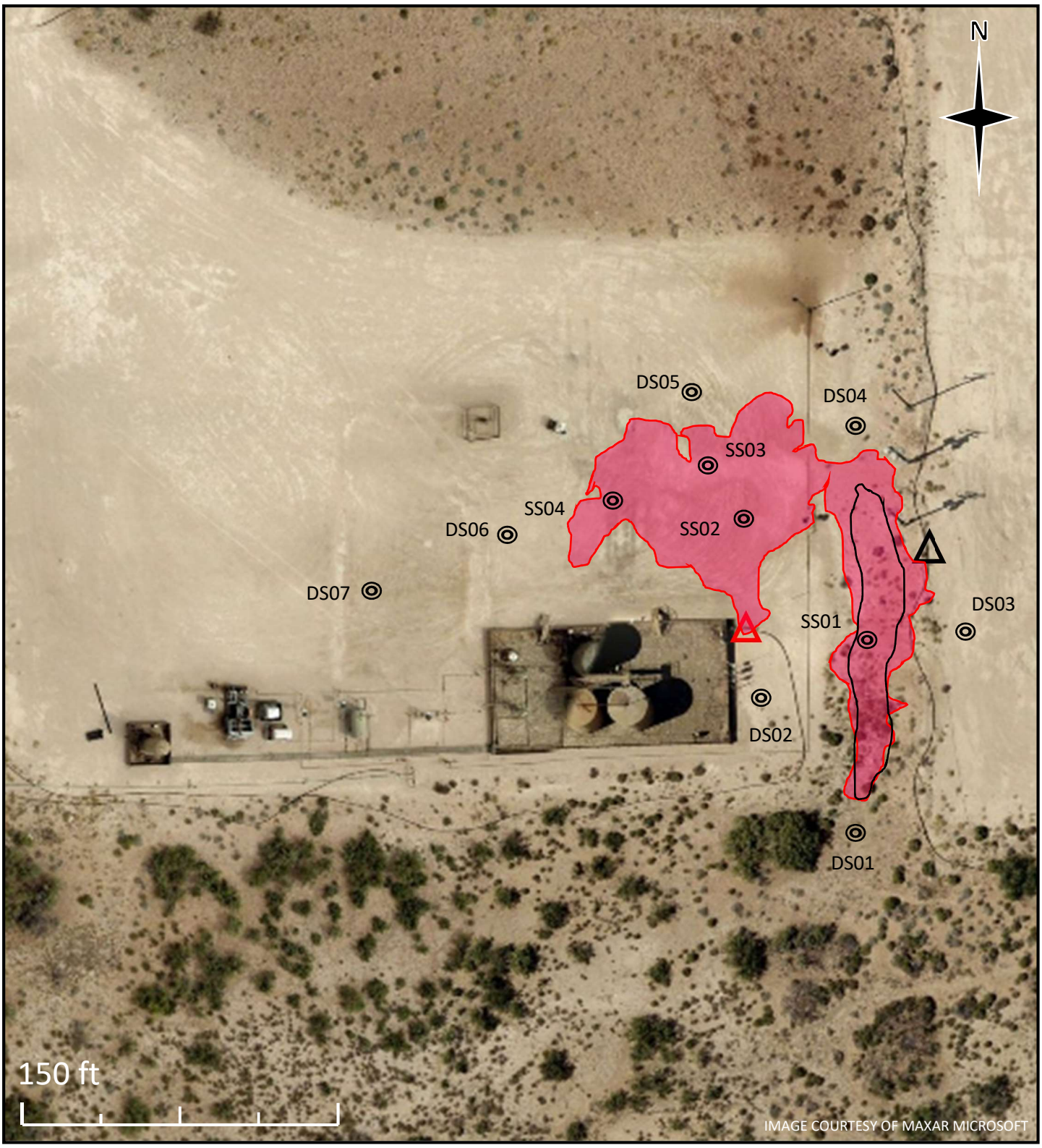
USGS National Hydrology Set

100=year Flood Plain

Figure 01
North Brushy Draw Federal 35 #002

Permian Basin, Eddy County, NM

Date: 11/12/2020



WPXENERGY

Legend

Samples

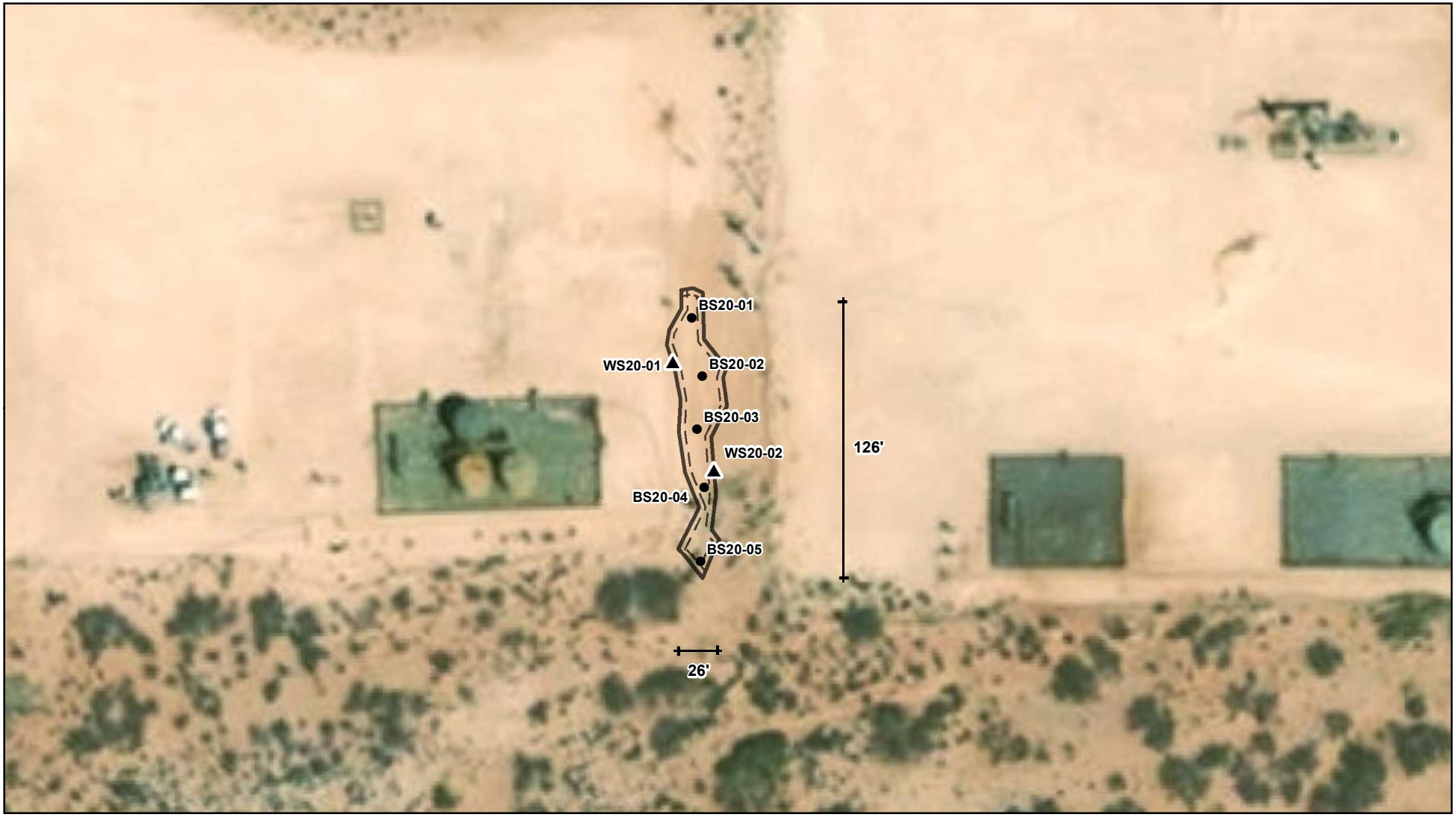
NRM2014147987 (Δ)

NRM2020657799 (Δ)

Figure 02
North Brushy Draw Federal 35 #002

Permian Basin, Eddy County, NM

Date: 11/12/2020



● Base Sample (Excavated)

▲ Wall Sample

Excavation (~ 1,736 sq. ft.)

VERTEX

0 25 50 Feet

Map Center:
Lat/Long: 32.092418, -103.948084

NAD 1983 UTM Zone 13N
Date: Aug 04/20

N

Confirmatory Schematic
North Brushy Draw Fed 35-9H

FIGURE: 4

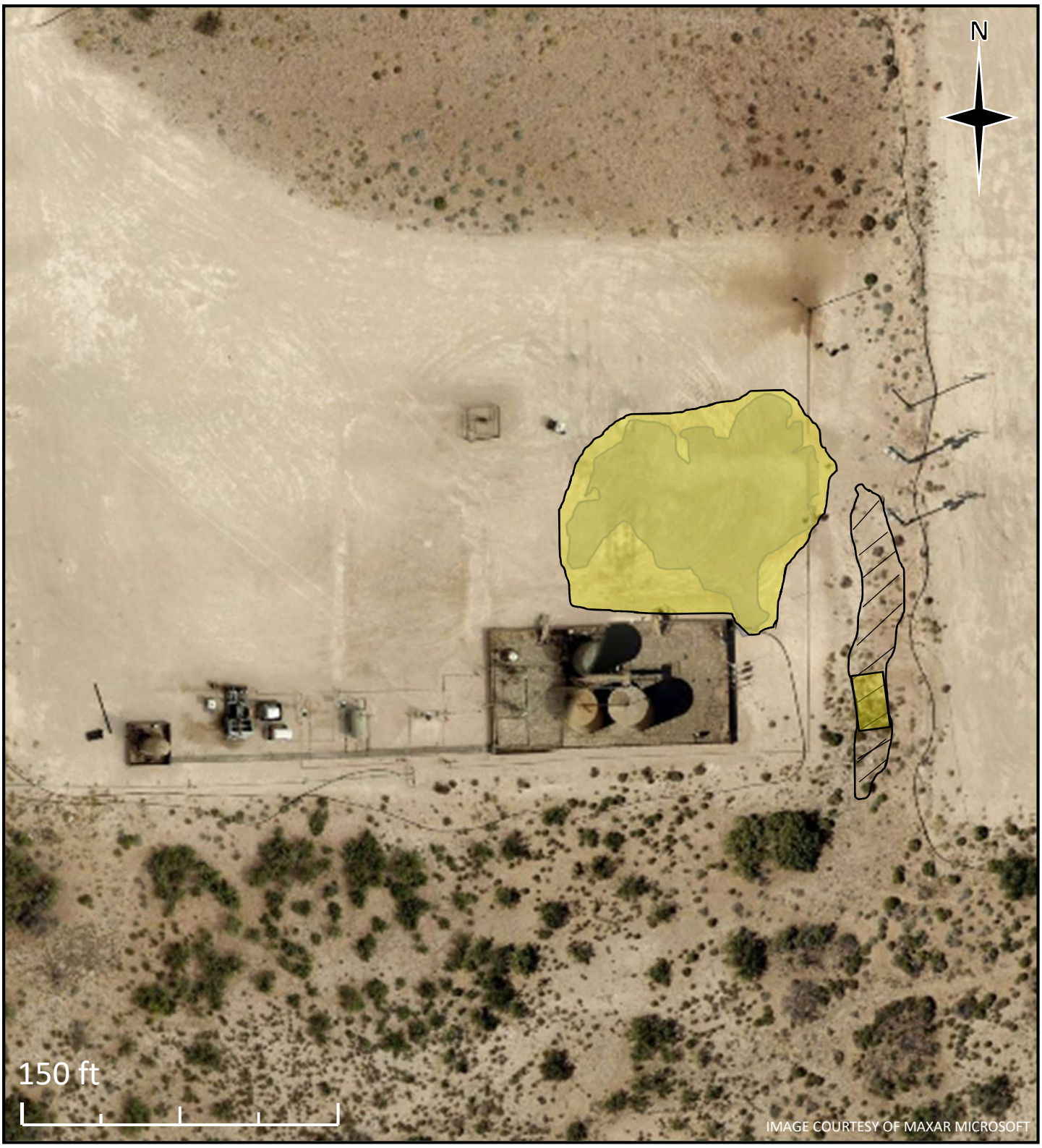
WPXENERGY

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2020.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\WPX\20E-01585 North Brushy Draw Federal 35-9H\Figure 2 Site Confirmatory Schematic (20E-01585).mxd



WPXENERGY

Legend

Samples

Remediation Proposal (6,940ft^2)

Current Excavation (1,740ft^2)

Figure 04
North Brushy Draw Federal 35 #002

Permian Basin, Eddy County, NM

Date: 11/12/2020

Table(s)

TABLE 01
SOIL SAMPLE ANALYTICAL RESULTS

NORTH BRUSHY DRAW FEDERAL 35 #002 & #009
NMOCD REFERENCE NUMBER: NRM2014147987, NRM202065779

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	5/15/2020	<0.0198	<0.0198	<49.8	<49.8	<49.8	-	-	**14200.0**
SS02	0.5	5/15/2020	<0.0198	<0.0198	<49.8	<49.8	<49.8	-	-	**17000.0**
SS03	0.5	5/15/2020	<0.00201	<0.00201	<50.1	<50.1	<50.1	-	-	**4020.0**
SS04	0.5	5/15/2020	<0.00201	<0.00201	<49.8	<49.8	<49.8	-	-	**5150.0**
DS01	2	5/20/2020	-	-	-	-	-	-	-	<9.94
DS01A	4	5/20/2020	-	-	-	-	-	-	-	17.9
DS02	2	5/20/2020	-	-	-	-	-	-	-	31.0
DS02A	4	5/20/2020	-	-	-	-	-	-	-	15.6
DS03	2	5/20/2020	-	-	-	-	-	-	-	392.0
DS03A	4	5/20/2020	-	-	-	-	-	-	-	81.6
DS04	2	5/20/2020	-	-	-	-	-	-	-	92.2
DS05	2	5/20/2020	-	-	-	-	-	-	-	318.0
DS06	2	5/20/2020	-	-	-	-	-	-	-	105.0
DS07	1	5/20/2020	-	-	-	-	-	-	-	**668.0**
DS07A	2	5/20/2020	-	-	-	-	-	-	-	220.0
BS20-01	2	7/17/2020	<0.023	-	<4.6	<9.3	<46.0	-	-	69.0
BS20-02	2	7/17/2020	<0.024	-	<4.7	<9.7	<48	-	-	170.0
BS20-03	2	7/17/2020	<0.023	-	<4.6	<9.8	<49	-	-	94.0
BS20-04	2	7/17/2020	<0.025	-	<4.9	<9.4	<47	-	-	**1000.0**
BS20-05	4	7/17/2020	<0.024	-	<4.8	<9.7	<49	-	-	190.0
WS20-01	-	7/17/2020	<0.024	-	<4.8	<9.5	<48	-	-	600.0
WS20-02	-	7/17/2020	<0.024	-	<4.7	<9.6	<48	-	-	<60.0
NMOCD Table 1 Closure Criteria			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600.0**

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

Attachment 01

Certificate of Analysis Summary 661807

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: North Brushy Draw Federal 35#002

Project Id: 05152020
Contact: Lynda Laumbach
Project Location:

Date Received in Lab: Fri 05.15.2020 16:15
Report Date: 05.19.2020 09:59
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	661807-001		661807-002					
	Field Id:	SS01		SS02					
	Depth:	0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	05.15.2020 13:00		05.15.2020 13:10					
BTEX by EPA 8021B	***Extracted:***	05.18.2020 12:01		05.18.2020 12:01					
	Analyzed:	05.18.2020 17:50		05.18.2020 18:11					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00198	0.00198	<0.00198	0.00198				
Toluene		<0.00198	0.00198	<0.00198	0.00198				
Ethylbenzene		<0.00198	0.00198	<0.00198	0.00198				
m,p-Xylenes		<0.00396	0.00396	<0.00397	0.00397				
o-Xylene		<0.00198	0.00198	<0.00198	0.00198				
Total Xylenes		<0.00198	0.00198	<0.00198	0.00198				
Total BTEX		<0.00198	0.00198	<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	05.15.2020 17:17		05.15.2020 17:17					
	Analyzed:	05.15.2020 23:34		05.15.2020 23:40					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		14200	201	17000	501				
TPH By SW8015 Mod	***Extracted:***	05.15.2020 17:45		05.15.2020 17:45					
	Analyzed:	05.16.2020 08:06		05.16.2020 08:27					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.8	49.8				
Diesel Range Organics (DRO)		<49.8	49.8	<49.8	49.8				
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.8	49.8				
Total TPH		<49.8	49.8	<49.8	49.8				

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager

Analytical Report 661807

for

WPX Energy Permian Basin, LLC

Project Manager: Lynda Laumbach

North Brushy Draw Federal 35#002

05152020

05.19.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05.19.2020

Project Manager: **Lynda Laumbach**
WPX Energy Permian Basin, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220

Reference: XENCO Report No(s): **661807**
North Brushy Draw Federal 35#002
Project Address:

Lynda Laumbach:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661807. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 661807 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 661807

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35#002

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	05.15.2020 13:00	0.5 ft	661807-001
SS02	S	05.15.2020 13:10	0.5 ft	661807-002

CASE NARRATIVE

Client Name: WPX Energy Permian Basin, LLC

Project Name: North Brushy Draw Federal 35#002

Project ID: *05152020*
Work Order Number(s): *661807*

Report Date: *05.19.2020*
Date Received: *05.15.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 661807

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35#002

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661807-001	Date Collected:	05.15.2020 13:00	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.15.2020 17:17	Basis:	Wet Weight
Seq Number:	3126180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14200**	201	mg/kg	05.15.2020 23:34		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.15.2020 17:45	Basis:	Wet Weight
Seq Number:	3126213				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.16.2020 08:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.16.2020 08:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.16.2020 08:06	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.16.2020 08:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.16.2020 08:06	
o-Terphenyl	84-15-1	125	%	70-135	05.16.2020 08:06	

Certificate of Analytical Results 661807

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35#002

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661807-001	Date Collected:	05.15.2020 13:00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.18.2020 12:01	Basis:	Wet Weight
Seq Number:	3126318				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.18.2020 17:50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.18.2020 17:50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.18.2020 17:50	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.18.2020 17:50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.18.2020 17:50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.18.2020 17:50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.18.2020 17:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.18.2020 17:50	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.18.2020 17:50	

Certificate of Analytical Results 661807

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35#002

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661807-002	Date Collected:	05.15.2020 13:10	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.15.2020 17:17	Basis:	Wet Weight
Seq Number:	3126180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17000**	501	mg/kg	05.15.2020 23:40		50

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.15.2020 17:45	Basis:	Wet Weight
Seq Number:	3126213				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.16.2020 08:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.16.2020 08:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.16.2020 08:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.16.2020 08:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.16.2020 08:27	
o-Terphenyl	84-15-1	116	%	70-135	05.16.2020 08:27	

Certificate of Analytical Results 661807

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35#002

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661807-002	Date Collected:	05.15.2020 13:10	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.18.2020 12:01	Basis:	Wet Weight
Seq Number:	3126318				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.18.2020 18:11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.18.2020 18:11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.18.2020 18:11	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.18.2020 18:11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.18.2020 18:11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.18.2020 18:11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.18.2020 18:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.18.2020 18:11	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.18.2020 18:11	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 661807

WPX Energy Permian Basin, LLC

North Brushy Draw Federal 35#002

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126180 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703457-1-BLK — LCS Sample Id: 7703457-1-BKS — LCSD Sample Id: 7703457-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	247	99	90-110	1	20	mg/kg	05.15.2020 22:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126180 — Matrix: Soil — Date Prep: 05.15.2020
Parent Sample Id: 661758-006 — MS Sample Id: 661758-006 S — MSD Sample Id: 661758-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	749	198	945	99	947	99	90-110	0	20	mg/kg	05.15.2020 22:41	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126213 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703528-1-BLK — LCS Sample Id: 7703528-1-BKS — LCSD Sample Id: 7703528-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1060	106	991	99	70-135	7	35	mg/kg	05.16.2020 05:40	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1140	114	70-135	6	35	mg/kg	05.16.2020 05:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		132		120		70-135	%	05.16.2020 05:40
o-Terphenyl	118		119		127		70-135	%	05.16.2020 05:40

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126213 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703528-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.16.2020 05:19	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126213 — Matrix: Soil — Date Prep: 05.15.2020
Parent Sample Id: 661755-017 — MS Sample Id: 661755-017 S — MSD Sample Id: 661755-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1040	104	1030	103	70-135	1	35	mg/kg	05.16.2020 06:42	
Diesel Range Organics (DRO)	<50.2	1000	1170	117	1180	118	70-135	1	35	mg/kg	05.16.2020 06:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	05.16.2020 06:42
o-Terphenyl	132		132		70-135	%	05.16.2020 06:42

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 661807

WPX Energy Permian Basin, LLC

North Brushy Draw Federal 35#002

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3126318 Matrix: Solid Date Prep: 05.18.2020

MB Sample Id: 7703446-1-BLK LCS Sample Id: 7703446-1-BKS LCSD Sample Id: 7703446-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.102	102	70-130	5	35	mg/kg	05.18.2020 14:06	
Toluene	<0.00200	0.100	0.102	102	0.0986	99	70-130	3	35	mg/kg	05.18.2020 14:06	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0932	93	71-129	3	35	mg/kg	05.18.2020 14:06	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.192	96	70-135	3	35	mg/kg	05.18.2020 14:06	
o-Xylene	<0.00200	0.100	0.0988	99	0.0963	96	71-133	3	35	mg/kg	05.18.2020 14:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		103		104		70-130	%	05.18.2020 14:06
4-Bromofluorobenzene	98		93		94		70-130	%	05.18.2020 14:06

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3126318 Matrix: Soil Date Prep: 05.18.2020

Parent Sample Id: 661755-014 MS Sample Id: 661755-014 S MSD Sample Id: 661755-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.108	108	0.0937	94	70-130	14	35	mg/kg	05.18.2020 14:47	
Toluene	<0.00200	0.0998	0.104	104	0.0891	90	70-130	15	35	mg/kg	05.18.2020 14:47	
Ethylbenzene	<0.00200	0.0998	0.0959	96	0.0822	83	71-129	15	35	mg/kg	05.18.2020 14:47	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.169	85	70-135	16	35	mg/kg	05.18.2020 14:47	
o-Xylene	<0.00200	0.0998	0.0989	99	0.0854	86	71-133	15	35	mg/kg	05.18.2020 14:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	05.18.2020 14:47
4-Bromofluorobenzene	95		97		70-130	%	05.18.2020 14:47

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 1e1e1807

www.xenco.com Page 1 of 1

Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Enery 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 ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	North Brushy Draw Federal 35 #002	Turn Around	
Project Number:	05152020	☒ Routine ☐ Rush	
Project Location		Due Date:	05/22
Sampler's Name:	Lynda Laumbach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Received Intact:	(Yes) No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Temperature Reading:	3.0
Total Containers:	2	Corrected Temperature:	2.8

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX method 8021	TPH method 8015	EPA 300.0 - Chlorides	Sample Comments
SS01	S	05/15/2020	13:00	0.5'	G	1		X	X	X	
SS02	S	05/15/2020	13:10	0.5'	G	1		X	X	X	

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: **1631 / 245.1 / 7470 / 7471**

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		05/15/2020 16:15	2		
			4		
			6		

Revised Date 05012020 Rev. 2020.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: WPX Energy Permian Basin, LLC

Date/ Time Received: 05.15.2020 04.15.00 PM

Work Order #: 661807

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 05.15.2020

Checklist reviewed by: Jessica Kramer Date: 05.18.2020

Jessica Kramer

Certificate of Analysis Summary 661808

WPX Energy Permian Basin, LLC, Carlsbad, NM

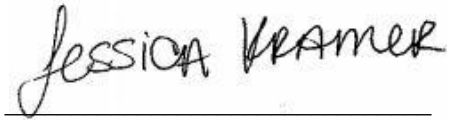
Project Name: North Brushy Draw Federal 35 #002

Project Id: 05152020
Contact: Lynda Laumbach
Project Location:

Date Received in Lab: Fri 05.15.2020 16:15
Report Date: 05.19.2020 10:00
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	661808-001		661808-002					
	Field Id:	SS03		SS04					
	Depth:	0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	05.15.2020 13:20		05.15.2020 13:30					
BTEX by EPA 8021B	***Extracted:***	05.18.2020 12:01		05.18.2020 12:01					
	Analyzed:	05.18.2020 18:31		05.18.2020 18:52					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00201	0.00201				
Toluene		<0.00201	0.00201	<0.00201	0.00201				
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201				
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402				
o-Xylene		<0.00201	0.00201	<0.00201	0.00201				
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201				
Total BTEX		<0.00201	0.00201	<0.00201	0.00201				
Chloride by EPA 300	***Extracted:***	05.15.2020 17:17		05.15.2020 17:17					
	Analyzed:	05.15.2020 23:46		05.15.2020 23:52					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		4020	101	5150	101				
TPH By SW8015 Mod	***Extracted:***	05.15.2020 17:45		05.15.2020 17:45					
	Analyzed:	05.16.2020 08:48		05.16.2020 09:09					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.8	49.8				
Diesel Range Organics (DRO)		<50.1	50.1	<49.8	49.8				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<49.8	49.8				
Total TPH		<50.1	50.1	<49.8	49.8				

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Jessica Kramer
Project Manager

Analytical Report 661808

for

WPX Energy Permian Basin, LLC

Project Manager: Lynda Laumbach

North Brushy Draw Federal 35 #002

05152020

05.19.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05.19.2020

Project Manager: **Lynda Laumbach**
WPX Energy Permian Basin, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220

Reference: XENCO Report No(s): **661808**
North Brushy Draw Federal 35 #002
Project Address:

Lynda Laumbach:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661808. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 661808 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 661808

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS03	S	05.15.2020 13:20	0.5 ft	661808-001
SS04	S	05.15.2020 13:30	0.5 ft	661808-002

CASE NARRATIVE

Client Name: WPX Energy Permian Basin, LLC

Project Name: North Brushy Draw Federal 35 #002

Project ID: *05152020*
Work Order Number(s): *661808*

Report Date: *05.19.2020*
Date Received: *05.15.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 661808

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661808-001	Date Collected:	05.15.2020 13:20	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.15.2020 17:17	Basis:	Wet Weight
Seq Number:	3126180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4020**	101	mg/kg	05.15.2020 23:46		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.15.2020 17:45	Basis:	Wet Weight
Seq Number:	3126213				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.16.2020 08:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 08:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 08:48	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 08:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.16.2020 08:48	
o-Terphenyl	84-15-1	128	%	70-135	05.16.2020 08:48	

Certificate of Analytical Results 661808

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661808-001	Date Collected:	05.15.2020 13:20	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.18.2020 12:01	Basis:	Wet Weight
Seq Number:	3126318				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.18.2020 18:31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.18.2020 18:31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.18.2020 18:31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.18.2020 18:31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.18.2020 18:31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.18.2020 18:31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.18.2020 18:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.18.2020 18:31	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.18.2020 18:31	

Certificate of Analytical Results 661808

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661808-002	Date Collected:	05.15.2020 13:30	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.15.2020 17:17	Basis:	Wet Weight
Seq Number:	3126180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5150**	101	mg/kg	05.15.2020 23:52		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.15.2020 17:45	Basis:	Wet Weight
Seq Number:	3126213				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.16.2020 09:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.16.2020 09:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.16.2020 09:09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.16.2020 09:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.16.2020 09:09	
o-Terphenyl	84-15-1	126	%	70-135	05.16.2020 09:09	

Certificate of Analytical Results 661808

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	05.15.2020 16:15
Lab Sample Id:	661808-002	Date Collected:	05.15.2020 13:30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.18.2020 12:01	Basis:	Wet Weight
Seq Number:	3126318				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.18.2020 18:52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.18.2020 18:52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.18.2020 18:52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.18.2020 18:52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.18.2020 18:52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.18.2020 18:52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.18.2020 18:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.18.2020 18:52	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.18.2020 18:52	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 661808

WPX Energy Permian Basin, LLC

North Brushy Draw Federal 35 #002

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126180 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703457-1-BLK — LCS Sample Id: 7703457-1-BKS — LCSD Sample Id: 7703457-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	247	99	90-110	1	20	mg/kg	05.15.2020 22:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126180 — Matrix: Soil — Date Prep: 05.15.2020
Parent Sample Id: 661758-006 — MS Sample Id: 661758-006 S — MSD Sample Id: 661758-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	749	198	945	99	947	99	90-110	0	20	mg/kg	05.15.2020 22:41	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126213 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703528-1-BLK — LCS Sample Id: 7703528-1-BKS — LCSD Sample Id: 7703528-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1060	106	991	99	70-135	7	35	mg/kg	05.16.2020 05:40	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1140	114	70-135	6	35	mg/kg	05.16.2020 05:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		132		120		70-135	%	05.16.2020 05:40
o-Terphenyl	118		119		127		70-135	%	05.16.2020 05:40

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126213 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703528-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.16.2020 05:19	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126213 — Matrix: Soil — Date Prep: 05.15.2020
Parent Sample Id: 661755-017 — MS Sample Id: 661755-017 S — MSD Sample Id: 661755-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1040	104	1030	103	70-135	1	35	mg/kg	05.16.2020 06:42	
Diesel Range Organics (DRO)	<50.2	1000	1170	117	1180	118	70-135	1	35	mg/kg	05.16.2020 06:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	05.16.2020 06:42
o-Terphenyl	132		132		70-135	%	05.16.2020 06:42

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 661808

WPX Energy Permian Basin, LLC

North Brushy Draw Federal 35 #002

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3126318 Matrix: Solid Date Prep: 05.18.2020

MB Sample Id: 7703446-1-BLK LCS Sample Id: 7703446-1-BKS LCSD Sample Id: 7703446-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.102	102	70-130	5	35	mg/kg	05.18.2020 14:06	
Toluene	<0.00200	0.100	0.102	102	0.0986	99	70-130	3	35	mg/kg	05.18.2020 14:06	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0932	93	71-129	3	35	mg/kg	05.18.2020 14:06	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.192	96	70-135	3	35	mg/kg	05.18.2020 14:06	
o-Xylene	<0.00200	0.100	0.0988	99	0.0963	96	71-133	3	35	mg/kg	05.18.2020 14:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		103		104		70-130	%	05.18.2020 14:06
4-Bromofluorobenzene	98		93		94		70-130	%	05.18.2020 14:06

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3126318 Matrix: Soil Date Prep: 05.18.2020

Parent Sample Id: 661755-014 MS Sample Id: 661755-014 S MSD Sample Id: 661755-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.108	108	0.0937	94	70-130	14	35	mg/kg	05.18.2020 14:47	
Toluene	<0.00200	0.0998	0.104	104	0.0891	90	70-130	15	35	mg/kg	05.18.2020 14:47	
Ethylbenzene	<0.00200	0.0998	0.0959	96	0.0822	83	71-129	15	35	mg/kg	05.18.2020 14:47	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.169	85	70-135	16	35	mg/kg	05.18.2020 14:47	
o-Xylene	<0.00200	0.0998	0.0989	99	0.0854	86	71-133	15	35	mg/kg	05.18.2020 14:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	05.18.2020 14:47
4-Bromofluorobenzene	95		97		70-130	%	05.18.2020 14:47

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 1e1e1808

www.xenco.com Page 1 of 1

Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Enery 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 ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	North Brushy Draw Federal 35 #002	Turn Around	
Project Number:	05152020	☒ Routine ☐ Rush	
Project Location		Due Date:	05/22
Sampler's Name:	Lynda Laumbach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Received Intact:	Yes No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.0
Total Containers:	2	Corrected Temperature:	2.8

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2S0_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX - 8021	TPH - 8015	Chlorides (EPA 300.0)	Sample Comments
SS#3	S	13:20	05/15/2020	0.5'	G	1		X	X	X	
SS#4	S	13:30	05/15/2020	0.5'	G	1		X	X	X	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		05/15/2020 16:15	2		
			4		
			6		

Revised Date 05012020 Rev. 2020.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: WPX Energy Permian Basin, LLC

Date/ Time Received: 05.15.2020 04.15.00 PM

Work Order #: 661808

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 05.15.2020

Checklist reviewed by: Jessica Kramer Date: 05.18.2020

Jessica Kramer

Certificate of Analysis Summary 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: North Brushy Draw Federal 35 #002

Project Id: 5142020
Contact: Lynda Laumbach
Project Location:

Date Received in Lab: Wed 05.20.2020 14:42
Report Date: 05.21.2020 10:38
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	662161-001		662161-002		662161-003		662161-004		662161-005		662161-006	
	Field Id:	DS01		DS01A		DS02		DS02A		DS03		DS03A	
	Depth:	2- ft		4- ft		2- ft		4- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	05.20.2020 09:30		05.20.2020 09:40		05.20.2020 09:50		05.20.2020 10:00		05.20.2020 10:10		05.20.2020 10:30	
Chloride by EPA 300	***Extracted:***	05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00	
	Analyzed:	05.21.2020 00:04		05.21.2020 00:22		05.21.2020 00:28		05.21.2020 00:33		05.21.2020 00:39		05.21.2020 00:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<9.94	9.94	17.9	10.1	31.0	10.1	15.6	10.1	392	10.1	81.6	10.0

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager

Certificate of Analysis Summary 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: North Brushy Draw Federal 35 #002

Project Id: 5142020
Contact: Lynda Laumbach
Project Location:

Date Received in Lab: Wed 05.20.2020 14:42
Report Date: 05.21.2020 10:38
Project Manager: Jessica Kramer

Analysis Requested												
	Lab Id:	662161-007		662161-008		662161-009		662161-010		662161-011		
	Field Id:	DS04		DS05		DS06		DS07		DS07A		
	Depth:	2- ft		2- ft		2- ft		1- ft		2- ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		
	Sampled:	05.20.2020 10:40		05.20.2020 10:50		05.20.2020 11:00		05.20.2020 11:10		05.20.2020 11:20		
Chloride by EPA 300	***Extracted:***	05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00		05.20.2020 17:00		
	Analyzed:	05.21.2020 01:03		05.21.2020 01:09		05.21.2020 01:15		05.21.2020 01:20		05.21.2020 01:26		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		92.2	9.98	318	9.98	105	9.92	668	9.96	220	9.94	

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager

Analytical Report 662161

for

WPX Energy Permian Basin, LLC

Project Manager: Lynda Laumbach

North Brushy Draw Federal 35 #002

5142020

05.21.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05.21.2020

Project Manager: **Lynda Laumbach**
WPX Energy Permian Basin, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220

Reference: XENCO Report No(s): **662161**
North Brushy Draw Federal 35 #002
Project Address:

Lynda Laumbach:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 662161. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 662161 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
DS01	S	05.20.2020 09:30	2 ft	662161-001
DS01A	S	05.20.2020 09:40	4 ft	662161-002
DS02	S	05.20.2020 09:50	2 ft	662161-003
DS02A	S	05.20.2020 10:00	4 ft	662161-004
DS03	S	05.20.2020 10:10	2 ft	662161-005
DS03A	S	05.20.2020 10:30	4 ft	662161-006
DS04	S	05.20.2020 10:40	2 ft	662161-007
DS05	S	05.20.2020 10:50	2 ft	662161-008
DS06	S	05.20.2020 11:00	2 ft	662161-009
DS07	S	05.20.2020 11:10	1 ft	662161-010
DS07A	S	05.20.2020 11:20	2 ft	662161-011

CASE NARRATIVE

Client Name: WPX Energy Permian Basin, LLC

Project Name: North Brushy Draw Federal 35 #002

Project ID: *5142020*
Work Order Number(s): *662161*

Report Date: *05.21.2020*
Date Received: *05.20.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS01**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-001	Date Collected:	05.20.2020 09:30	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	05.21.2020 00:04	U	1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS01A**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-002	Date Collected:	05.20.2020 09:40	Sample Depth:	4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.9**	10.1	mg/kg	05.21.2020 00:22		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS02**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-003	Date Collected:	05.20.2020 09:50	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.0**	10.1	mg/kg	05.21.2020 00:28		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS02A**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-004	Date Collected:	05.20.2020 10:00	Sample Depth:	4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.6**	10.1	mg/kg	05.21.2020 00:33		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS03**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-005	Date Collected:	05.20.2020 10:10	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**392**	10.1	mg/kg	05.21.2020 00:39		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS03A**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-006	Date Collected:	05.20.2020 10:30	Sample Depth:	4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**81.6**	10.0	mg/kg	05.21.2020 00:57		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS04**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-007	Date Collected:	05.20.2020 10:40	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**92.2**	9.98	mg/kg	05.21.2020 01:03		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS05**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-008	Date Collected:	05.20.2020 10:50	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**318**	9.98	mg/kg	05.21.2020 01:09		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS06**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-009	Date Collected:	05.20.2020 11:00	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	9.92	mg/kg	05.21.2020 01:15		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS07**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-010	Date Collected:	05.20.2020 11:10	Sample Depth:	1 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**668**	9.96	mg/kg	05.21.2020 01:20		1

Certificate of Analytical Results 662161

WPX Energy Permian Basin, LLC, Carlsbad, NM

North Brushy Draw Federal 35 #002

Sample Id:	**DS07A**	Matrix:	Soil	Date Received:	05.20.2020 14:42
Lab Sample Id:	662161-011	Date Collected:	05.20.2020 11:20	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3126609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**220**	9.94	mg/kg	05.21.2020 01:26		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 662161

WPX Energy Permian Basin, LLC

North Brushy Draw Federal 35 #002

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3126609 Matrix: Solid Date Prep: 05.20.2020

MB Sample Id: 7703794-1-BLK LCS Sample Id: 7703794-1-BKS LCSD Sample Id: 7703794-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	249	100	90-110	1	20	mg/kg	05.20.2020 23:52	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3126609 Matrix: Soil Date Prep: 05.20.2020

Parent Sample Id: 662161-001 MS Sample Id: 662161-001 S MSD Sample Id: 662161-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	197	99	197	99	90-110	0	20	mg/kg	05.21.2020 00:10	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3126609 Matrix: Soil Date Prep: 05.20.2020

Parent Sample Id: 662161-011 MS Sample Id: 662161-011 S MSD Sample Id: 662161-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	220	200	414	97	416	98	90-110	0	20	mg/kg	05.21.2020 01:32	

MS/MSD Percent Recovery [D] = 100*(C-A) / B

Relative Percent Difference RPD = 200* | (C-E) / (C+E) |

LCS/LCSD Recovery [D] = 100 * (C) / [B]

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample MS = Matrix Spike

A = Parent Result B = Spike Added

C = MS/LCS Result D = MSD/LCSD % Rec

E = MSD/LCSD Result

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 652161

www.xenco.com Page 1 of 2

Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Enery 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 ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	North Brushy Draw Federal 35 #002	Turn Around	Pres. Code
Project Number:	5142020	☒ Routine ☐ Rush	A
Project Location		Due Date: 05/27/2020	
Sampler's Name:	Lynda Laumbach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Received Intact:	Yes No	Thermometer ID:	T-NM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.9
Total Containers:	11	Corrected Temperature:	2.7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: Chlorides (EPA 300.0)	BTEX (8021)	TPH (8015)	Sample Comments
DS01	S	05/20/2020	9:30	2'	G	1	X			
DS01A			9:40	4'			X			
DS02			9:50	2'			X			
DS02A			10:00	4'			X			
DS03			10:10	2'			X			
DS03A			10:20	4'			X			
DS04			10:30	2'			X			
DS05			10:50	2'			X			
DS06			11:00	2'			X			
DS07			11:10	1'			X			

Preservative Codes

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		05/21/2020 1442	2		
			4		
			6		

Revised Date 05012020 Rev. 2020.1

XENCO LABORATORIES

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 652161

www.xenco.com Page 2 of 2

Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Enery 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 ☐ PRP ☐ rownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	North Brushy Draw Federal 35 #002	Turn Around	
Project Number:	5142020	☒ Routine	☐ Rush
Project Location		Due Date:	
Sampler's Name:	Lynda Laumbach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

ANALYSIS REQUEST — Parameters: Chloride (EPA 300.0), BTEX (8021), TPH (8015)

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Pres. Code	Chloride (EPA 300.0)	BTEX (8021)	TPH (8015)	Sample Comments
DS07A	S	05/20/2020	11:20	2'	G	1		X			

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

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[signature]	[signature]	05/20/2020 1442	2		
			4		
			6		

Revised Date 05012020 Rev. 2020.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: WPX Energy Permian Basin, LLC

Date/ Time Received: 05.20.2020 02.42.00 PM

Work Order #: 662161

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.9
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 05.20.2020

Checklist reviewed by: Jessica Kramer Date: 05.21.2020

Jessica Kramer

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

July 29, 2020

Kevin Smith

WPX Energy
5315 Buena Vista Drive
Carlsbad, NM 88220
TEL: (505) 386-9693
FAX

RE: North Brushy Draw Federal 35-9H OrderNo.: 2007A08

Dear Kevin Smith:

Hall Environmental Analysis Laboratory received 7 sample(s) on 7/21/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: BS20-01 2'
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 12:15:00 PM
Lab ID: 2007A08-001 **Matrix:** SOIL **Received Date:** 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	69	60		mg/Kg	20	7/25/2020 12:23:26 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/23/2020 3:32:56 PM	53905
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/23/2020 3:32:56 PM	53905
Surr: DNOP	63.2	55.1-146		%Rec	1	7/23/2020 3:32:56 PM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/24/2020 6:15:57 AM	53885
Surr: BFB	88.7	66.6-105		%Rec	1	7/24/2020 6:15:57 AM	53885
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	7/24/2020 6:15:57 AM	53885
Toluene	ND	0.046		mg/Kg	1	7/24/2020 6:15:57 AM	53885
Ethylbenzene	ND	0.046		mg/Kg	1	7/24/2020 6:15:57 AM	53885
Xylenes, Total	ND	0.092		mg/Kg	1	7/24/2020 6:15:57 AM	53885
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/24/2020 6:15:57 AM	53885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: BS20-02 2'
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 12:51:00 PM
Lab ID: 2007A08-002 **Matrix:** SOIL **Received Date:** 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	170	60		mg/Kg	20	7/25/2020 12:35:50 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/23/2020 4:03:46 PM	53905
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2020 4:03:46 PM	53905
Surr: DNOP	73.8	55.1-146		%Rec	1	7/23/2020 4:03:46 PM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/24/2020 6:39:25 AM	53885
Surr: BFB	90.4	66.6-105		%Rec	1	7/24/2020 6:39:25 AM	53885
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/24/2020 6:39:25 AM	53885
Toluene	ND	0.047		mg/Kg	1	7/24/2020 6:39:25 AM	53885
Ethylbenzene	ND	0.047		mg/Kg	1	7/24/2020 6:39:25 AM	53885
Xylenes, Total	ND	0.094		mg/Kg	1	7/24/2020 6:39:25 AM	53885
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/24/2020 6:39:25 AM	53885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: BS20-03 2'
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 1:42:00 PM
Lab ID: 2007A08-003 **Matrix:** SOIL **Received Date:** 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	94	60		mg/Kg	20	7/25/2020 1:13:02 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/23/2020 4:13:59 PM	53905
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/23/2020 4:13:59 PM	53905
Surr: DNOP	72.9	55.1-146		%Rec	1	7/23/2020 4:13:59 PM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/23/2020 3:45:43 PM	53903
Surr: BFB	91.8	66.6-105		%Rec	1	7/23/2020 3:45:43 PM	53903
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	7/23/2020 3:45:43 PM	53903
Toluene	ND	0.046		mg/Kg	1	7/23/2020 3:45:43 PM	53903
Ethylbenzene	ND	0.046		mg/Kg	1	7/23/2020 3:45:43 PM	53903
Xylenes, Total	ND	0.092		mg/Kg	1	7/23/2020 3:45:43 PM	53903
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/23/2020 3:45:43 PM	53903

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: BS20-04 2'
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 2:18:00 PM
Lab ID: 2007A08-004 **Matrix:** SOIL **Received Date:** 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	1000	60		mg/Kg	20	7/25/2020 1:25:27 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/23/2020 4:24:10 PM	53905
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/23/2020 4:24:10 PM	53905
Surr: DNOP	65.7	55.1-146		%Rec	1	7/23/2020 4:24:10 PM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/23/2020 4:56:39 PM	53903
Surr: BFB	91.4	66.6-105		%Rec	1	7/23/2020 4:56:39 PM	53903
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	7/23/2020 4:56:39 PM	53903
Toluene	ND	0.049		mg/Kg	1	7/23/2020 4:56:39 PM	53903
Ethylbenzene	ND	0.049		mg/Kg	1	7/23/2020 4:56:39 PM	53903
Xylenes, Total	ND	0.099		mg/Kg	1	7/23/2020 4:56:39 PM	53903
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/23/2020 4:56:39 PM	53903

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: BS20-05 4'
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 3:33:00 PM
Lab ID: 2007A08-005 **Matrix:** SOIL **Received Date:** 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	190	60		mg/Kg	20	7/25/2020 1:37:52 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/23/2020 4:34:21 PM	53905
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/23/2020 4:34:21 PM	53905
Surr: DNOP	45.5	55.1-146	S	%Rec	1	7/23/2020 4:34:21 PM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/23/2020 5:20:10 PM	53903
Surr: BFB	98.4	66.6-105		%Rec	1	7/23/2020 5:20:10 PM	53903
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/23/2020 5:20:10 PM	53903
Toluene	ND	0.048		mg/Kg	1	7/23/2020 5:20:10 PM	53903
Ethylbenzene	ND	0.048		mg/Kg	1	7/23/2020 5:20:10 PM	53903
Xylenes, Total	ND	0.096		mg/Kg	1	7/23/2020 5:20:10 PM	53903
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/23/2020 5:20:10 PM	53903

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: WS20-01
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 4:18:00 PM
Lab ID: 2007A08-006 **Matrix:** SOIL
Received Date: 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	600	60		mg/Kg	20	7/25/2020 1:50:17 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/23/2020 4:44:32 PM	53905
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2020 4:44:32 PM	53905
Surr: DNOP	65.4	55.1-146		%Rec	1	7/23/2020 4:44:32 PM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/23/2020 5:43:46 PM	53903
Surr: BFB	94.2	66.6-105		%Rec	1	7/23/2020 5:43:46 PM	53903
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/23/2020 5:43:46 PM	53903
Toluene	ND	0.048		mg/Kg	1	7/23/2020 5:43:46 PM	53903
Ethylbenzene	ND	0.048		mg/Kg	1	7/23/2020 5:43:46 PM	53903
Xylenes, Total	ND	0.096		mg/Kg	1	7/23/2020 5:43:46 PM	53903
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/23/2020 5:43:46 PM	53903

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2007A08**
Date Reported: **7/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy
Client Sample ID: WS20-02
Project: North Brushy Draw Federal 35-9H
Collection Date: 7/17/2020 4:24:00 PM
Lab ID: 2007A08-007 **Matrix:** SOIL
Received Date: 7/21/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/25/2020 2:02:41 AM	53944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/28/2020 11:28:32 AM	53905
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/28/2020 11:28:32 AM	53905
Surr: DNOP	52.4	30.4-154		%Rec	1	7/28/2020 11:28:32 AM	53905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/23/2020 6:07:26 PM	53903
Surr: BFB	91.9	66.6-105		%Rec	1	7/23/2020 6:07:26 PM	53903
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/23/2020 6:07:26 PM	53903
Toluene	ND	0.047		mg/Kg	1	7/23/2020 6:07:26 PM	53903
Ethylbenzene	ND	0.047		mg/Kg	1	7/23/2020 6:07:26 PM	53903
Xylenes, Total	ND	0.095		mg/Kg	1	7/23/2020 6:07:26 PM	53903
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/23/2020 6:07:26 PM	53903

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007A08**
29-Jul-20

Client: WPX Energy
Project: North Brushy Draw Federal 35-9H

Sample ID: **MB-53944**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **53944**	RunNo: **70587**							
Prep Date: **7/24/2020**	Analysis Date: **7/24/2020**	SeqNo: **2456148**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-53944**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **53944**	RunNo: **70587**							
Prep Date: **7/24/2020**	Analysis Date: **7/24/2020**	SeqNo: **2456149**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007A08**
29-Jul-20

Client: WPX Energy
Project: North Brushy Draw Federal 35-9H

Sample ID: **2007A08-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BS20-01 2'**	Batch ID: **53905**	RunNo: **70548**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2454543** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.6	47.80	3.292	93.2	47.4	136			
Surr: DNOP	2.8		4.780		58.9	55.1	146			

Sample ID: **2007A08-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BS20-01 2'**	Batch ID: **53905**	RunNo: **70548**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2454544** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	49.80	3.292	87.5	47.4	136	1.97	43.4	
Surr: DNOP	2.2		4.980		43.5	55.1	146	0	0	S

Sample ID: **MB-53905**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **53905**	RunNo: **70548**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2454549** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	6.9		10.00		68.7	55.1	146			

Sample ID: **LCS-53905**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **53905**	RunNo: **70551**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2454563** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	70	130			
Surr: DNOP	4.8		5.000		95.5	55.1	146			

Sample ID: **LCS-53926**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **53926**	RunNo: **70581**
Prep Date: **7/23/2020**	Analysis Date: **7/24/2020**	SeqNo: **2455254** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		117	55.1	146			

Sample ID: **MB-53926**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **53926**	RunNo: **70581**
Prep Date: **7/23/2020**	Analysis Date: **7/24/2020**	SeqNo: **2455255** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007A08**
29-Jul-20

Client: WPX Energy
Project: North Brushy Draw Federal 35-9H

Sample ID: **MB-53926**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **53926**	RunNo: **70581**
Prep Date: **7/23/2020**	Analysis Date: **7/24/2020**	SeqNo: **2455255** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	13		10.00		127	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007A08**
29-Jul-20

Client: WPX Energy
Project: North Brushy Draw Federal 35-9H

Sample ID: **lcs-53885**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **53885**	RunNo: **70543**
Prep Date: **7/21/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455013** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.6	72.5	106			
Surr: BFB	1000		1000		104	66.6	105			

Sample ID: **lcs-53903**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **53903**	RunNo: **70543**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.6	72.5	106			
Surr: BFB	1000		1000		102	66.6	105			

Sample ID: **mb-53885**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **53885**	RunNo: **70543**
Prep Date: **7/21/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455015** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.0	66.6	105			

Sample ID: **mb-53903**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **53903**	RunNo: **70543**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455016** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.2	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007A08**
29-Jul-20

Client: WPX Energy
Project: North Brushy Draw Federal 35-9H

Sample ID: **2007a08-003ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BS20-03 2'**	Batch ID: **53903**	RunNo: **70543**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.024	0.9737	0	96.3	78.5	119			
Toluene	0.96	0.049	0.9737	0.009972	97.2	75.7	123			
Ethylbenzene	0.97	0.049	0.9737	0	99.8	74.3	126			
Xylenes, Total	2.9	0.097	2.921	0	101	72.9	130			
Surr: 4-Bromofluorobenzene	1.0		0.9737		105	80	120			

Sample ID: **2007a08-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BS20-03 2'**	Batch ID: **53903**	RunNo: **70543**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455061** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9579	0	94.2	78.5	119	3.84	20	
Toluene	0.92	0.048	0.9579	0.009972	95.0	75.7	123	3.87	20	
Ethylbenzene	0.94	0.048	0.9579	0	98.3	74.3	126	3.17	20	
Xylenes, Total	2.8	0.096	2.874	0	99.0	72.9	130	3.49	20	
Surr: 4-Bromofluorobenzene	1.0		0.9579		105	80	120	0	0	

Sample ID: **LCS-53885**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **53885**	RunNo: **70543**
Prep Date: **7/21/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455067** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.0	80	120			
Toluene	0.92	0.050	1.000	0	91.8	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: **LCS-53903**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **53903**	RunNo: **70543**
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455068** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.7	80	120			
Toluene	0.94	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007A08**
29-Jul-20

Client: WPX Energy
Project: North Brushy Draw Federal 35-9H

Sample ID: **mb-53885**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **53885**	RunNo: **70543**							
Prep Date: **7/21/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455069**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID: **mb-53903**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **53903**	RunNo: **70543**							
Prep Date: **7/22/2020**	Analysis Date: **7/23/2020**	SeqNo: **2455070**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: WPX Energy Work Order Number: 2007A08 RcptNo: 1

Received By: **Cheyenne Cason** 7/21/2020 9:30:00 AM

Completed By: **Juan Rojas** 7/21/2020 9:58:19 AM

Reviewed By: JR 7/21/20

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: SPA 7-21-20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good				
2	1.7	Good				

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client:	WPX Energy
Mailing Address:	5315 Buena Vista Dr Carlsbad, NM 88220
Phone #:	(575) 689-7597
email or Fax#:	
QA/QC Package:	☐ Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)	

Turn-Around Time:	5 Day Turn
☒ Standard ☐ Rush	
Project Name:	North Brushy Draw Federal 359H
Project #:	20E-01585-001
Project Manager:	Kevin Smith
Sampler:	Kevin Smith
On Ice:	☑ Yes ☐ No
# of Coolers:	2
Cooler Temp(including CF):	See below (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2007A08	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7/17/20	12:15	Soil	BS20-01 2'	4oz jar	ice	-001	X	X					X			
	12:51		BS20-02 2'			-002										
	1:42		BS20-03 2'			-003										
	2:18		BS20-04 2'			-004										
	3:33		BS20-05 4'			-005										
	4:18		WS20-01			-006										
	4:24		WS20-02			-007										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/20/20	1300
7/20/20	1900		Corrine		7/21/20	0930

Remarks: 5.6 +0.2 25.8, 1.5 +0.2 21.2
Send report to Jim Raley and Ke Smi
jamesraley@wpxenergy.com
Ksmith@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014147987
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- [X] Detailed description of proposed remediation technique
- [X] Scaled sitemap with GPS coordinates showing delineation points
- [X] Estimated volume of material to be remediated
- [X] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [X] 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: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 11/12/2020

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

OCD Only

Received by: Robert Hamlet Date: 4/6/2021

- [ ] Approved
- [X] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Robert Hamlet Date: 4/6/2021

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 11189

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
WPX ENERGY PERMIAN, LLC	3500 One Williams Center	Tulsa, OK74172	246289	11189	C-141

OCD Reviewer	Condition
rhamlet	The Remediation Plan is approved with the following conditions: All floor samples need to be below closure criteria standards of <50' depth to groundwater from Table 1 of the spill rule. Please make sure the edges/sidewalls are delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH. All soil samples need to be tested for all components in Table 1 of the OCD Spill Rule.