

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	NRM2017635527
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) NRM2017635527
Contact mailing address: 5315 Buena Vista Drive, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.3342547 Longitude -104.033614
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Longview Federal 1 #44 (@ Longview Federal 1 #34 Pad)	Site Type: Production Facility
Date Release Discovered: 06/15/2020	API# (if applicable): 30-015-38070

Unit Letter	Section	Township	Range	County
I	01	23S	28E	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): 4	Volume Recovered (bbls): 2
☒ Produced Water	Volume Released (bbls): 12	Volume Recovered (bbls): 4
	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:

Flowline developed a leak between the well pad and the tank battery causing 16bbl of total fluid to be released on the Longview Federal 1-34 production pad. A total of 6bbls of fluids was recovered with a vacuum truck. 100ft² of pasture surface was impacted by the release.

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

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ 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 <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Lynda Laumbach</u>	Title: <u>Environmental Specialist</u>
Signature: <u></u>	Date: <u>06/25/2020</u>
email: <u>Lynda.Laumbach@wpenergy.com</u>	Telephone: <u>(575)725-1647</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>6/26/2020</u>

Incident ID	NRM2017635527
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

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

Printed Name: Lynda Laumbach Title: Environmental SpecialistSignature:  Date: 09/10/2020email: Lynda.Laumbach@wpenergy.com Telephone: (575)725-1647**OCD Only**

Received by: _____ Date: _____

Incident ID	NRM2017635527
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Application ID	

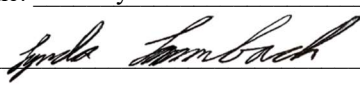
Closure

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

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

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

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

Printed Name: Lynda Laumbach Title: Environmental Specialist
Signature:  Date: 09/10/2020
email: Lynda.Laumbach@wpenergy.com Telephone: (575)725-1647

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



September 10, 2020
Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210

Re: Longview Federal 1 #044H Release Closure Request (NRM2017635527)

Mr. Bratcher,

This report summarizes the excavation, and sampling activities at the Longview Federal 1 #044H well pad (Site). The site map is provided as Figure 01. On June 15, 2020, the production flowline developed a leak en route to the tank battery causing 16 barrels (bbls), 4 bbls oil and 12 bbls of produced water (PW) to be released at the entrance to the Longview 1 #34H well pad. 2 bbls of oil and 4 bbls of produced water was recovered with a vacuum truck.

Well Location: Longview Federal 1 #044H

API #: 30-015-38070

NMOCD Reference #: NRM2017635527

Site Location Description: Unit Letter I, Section 01, Township 23S, Range 28E

Release Latitude/Longitude: N32.3342547, W104.033614

Land Jurisdiction: Federal

Agency Notification: New Mexico Oil Conservation Division (NMOCD), Artesia District Office

Agency Notification Date(s): June 15, 2020

Source of Release: Pipeline corrosion

Release Contents: PW & Oil

Volume Released: 12 bbls PW, 4 bbls oil

Volume Recovered: 4 bbls PW, 2 bbls oil

Estimated Depth to Groundwater: >50 feet

Closure Criteria Determination

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). Depth to groundwater at the site is estimated to be greater than 50 feet below ground surface (bgs) based on permitted wells C-04418-POD1 and C-04417-POD1, both completed on March 31, 2020. The wells were completed to a depth of 55 feet, and groundwater was not encountered or observed prior to the plugging of the wells on April 3, 2020. Plug Record of the wells are provided as Attachment 02. Based on the criteria outlined above, the closure criteria from the NMOCD Table 1 are as follows:

- 10,000 milligrams per kilogram (mg/kg) Chloride
- 50 mg/kg Benzene, Toluene, Ethylbenzene, and xylenes (BTEX)
- 10 mg/kg Benzene
- 2,500 mg/kg Total Petroleum Hydrocarbons (TPH)
- 1,000 mg/kg Diesel range organics (DRO) + Gasoline range organics (GRO)

Field Activities

On June 15, 2020, WPX personnel were onsite to map the release area. The visually impacted area is provided in Figure 02. Initial excavation activities were completed June 29, 2020. Sampling of the excavation took place on July 9, 2020 and sidewall samples SW01 & SW02, Floor sample FS01, and discrete delineation samples DS01 through DS03 were collected to delineate the release.

Excavation activities were resumed at the Site on August 20 through 23, 2020 to address the floor impacts greater than closure standards. A jackhammer attachment was used to advance the excavation floor down an average of one foot. A sampling notification was given to the NMOCD on August 31, 2020 with intent to collect final samples on September 3, 2020. Samples FS02A-FS11A were sampled to address the previous samples FS02-FS11 samples. Pictures of the excavation activities are provided in Attachment 03. A total of 150 cubic yards was excavated and hauled to disposal. All waste was hauled to R360 Hobbs Transportation Facility, 4507 W Carlsbad Hwy in Lea County, New Mexico. The excavation covered 1,990 square feet with an average depth of 2 foot bgs.

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

Laboratory Analytical Results

The laboratory analytical results for the excavation of impacted soils confirmed that all floor, sidewall, and discrete samples were compliant with the closure criteria for this Site. All samples are below the allowable standards for Chloride, BTEX, and TPH. The sample locations are depicted in Figure 03. All sample results are summarized in Table 1 and complete lab results are provided in Attachment 04.

- Chloride samples ranged from 18.9 to 1020 mg/kg
- BTEX analysis was below the Laboratory detectable limit
- Benzene analysis was below the Laboratory detectable limit
- TPH ranged from below the Laboratory detectable limit to 430 mg/kg

Conclusions

The laboratory analytical results to address the impacted soils from NRM2017635527 demonstrates compliance with the Table 1 Closure Criteria set forth by the NMOCD. Actions to mitigate initial impacts of this site have proven a successful remediation. WPX requests no further action for this incident. The updated C-141 is included at the front of this report. If any questions or further information is warranted, please do not hesitate to contact me by cell phone at (575) 725-1647 or by email at Lynda.Laumbach@wpxenergy.com.

Best regards,



Lynda Laumbach
Environmental Specialist

CC: Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 01 Site Map

Figure 02 Excavation Activities

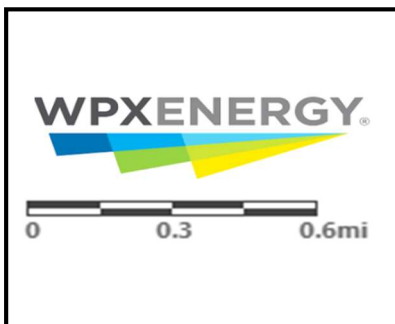
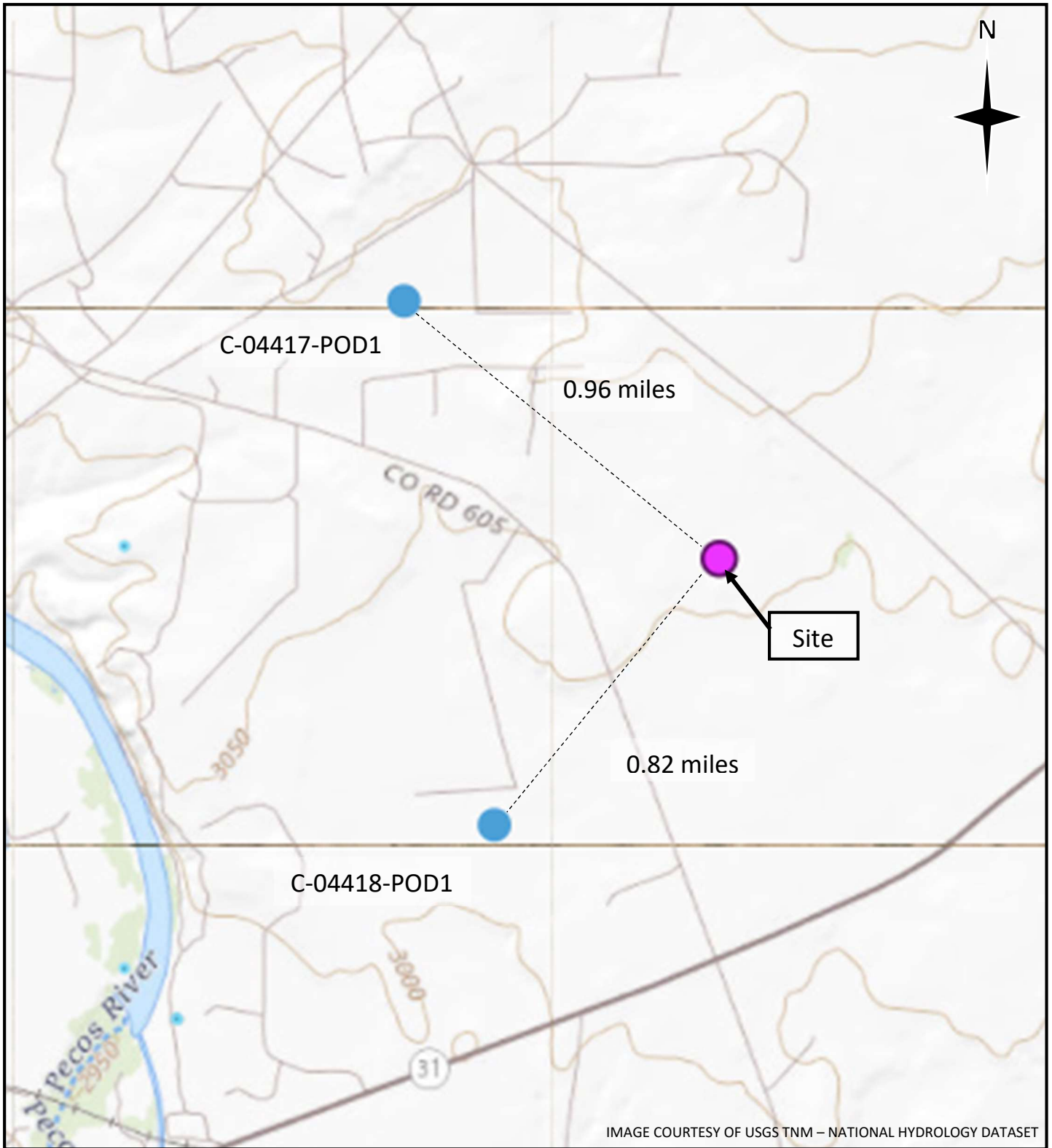
Table 01 Sample Results

Attachment 01 Water Wells C 04418 & 04417 Plug Records

Attachment 02 Photograph Log

Attachment 03 Laboratory Analytical Results

Figures



Legend

- WPX Wells (DTW determination)

Figure 01
Longview Federal 1 44H
30-015-38070
Permian Basin, Eddy County, NM
32.3342383, -104.0335925
NRM2017635527

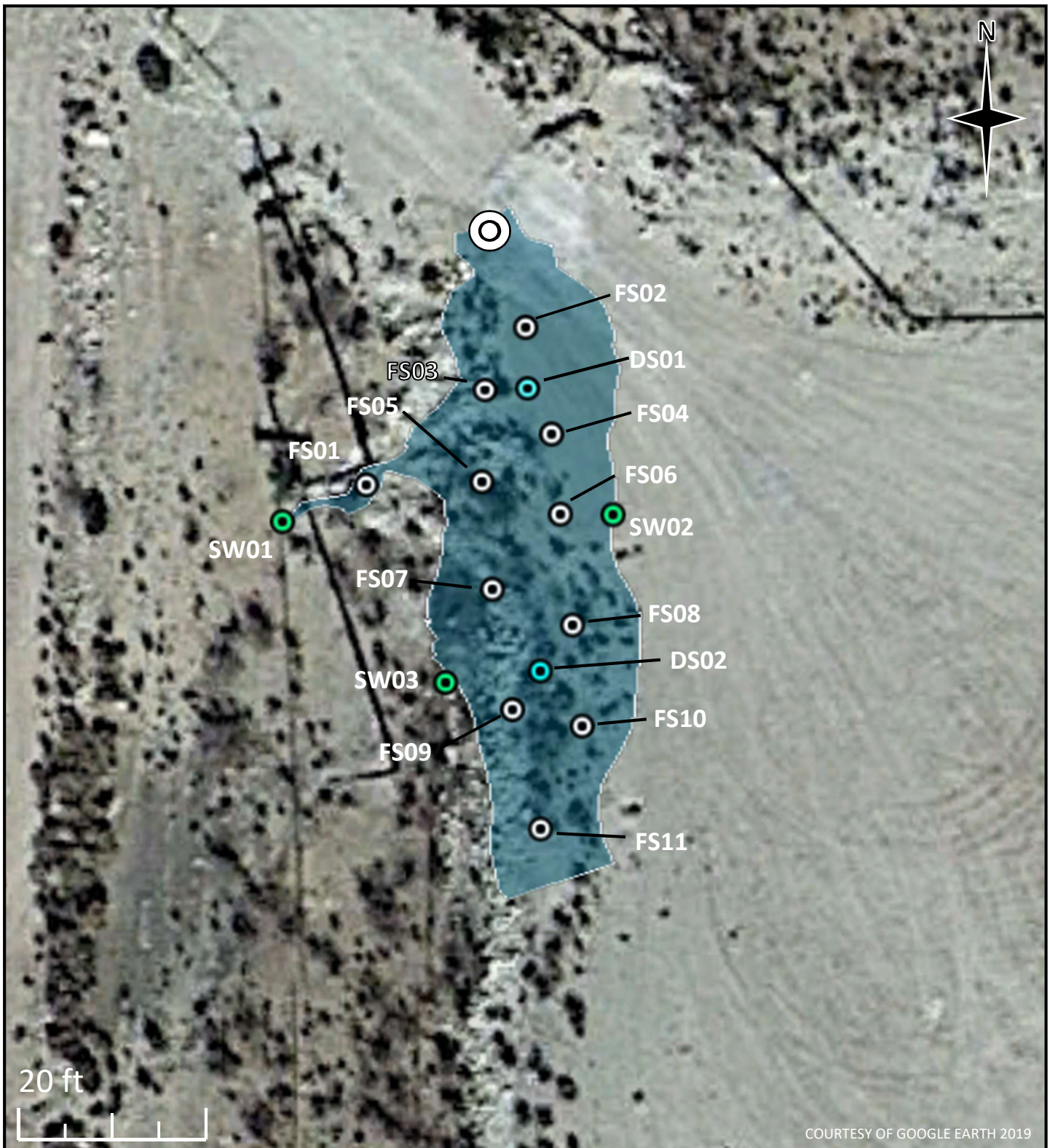


Legend

⊙ Point of Release

■ Release Extent

Figure 02
Longview Federal 1 44H
30-015-38070
Permian Basin, Eddy County, NM
32.3342383, -104.0335925
NRM2017635527



Legend

- ⊙ Point of Release
- Excavation Extent

Figure 03
Longview Federal 1 44H
30-015-38070
Permian Basin, Eddy County, NM
32.3342383, -104.0335925
NRM2017635527

Table(s)

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Longview Federal 1 #044H
NMOCD REFERENCE NUMBER: NRM2017635527



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)
SW01	0-1	7/9/2020	<0.002	<0.002	<50.0	146.0	183	146.0	329.0	24.6
SW02	0-1	7/9/2020	<0.00199	<0.00199	<50.3	121.0	179	121.0	300.0	18.9
SW03	0-1.5	7/9/2020	<0.00202	<0.00202	<50.2	144.0	171	144.0	315.0	23.9
FS01	1	7/9/2020	<0.00202	<0.00202	<50.3	305.0	125	305.0	430.0	267.0
FS02	1.5	7/9/2020	<0.00201	<0.00201	<50.2	1220.0	225	1220.0	1450.0	7420.0
FS02A	2.5	9/3/2020	<0.002	<0.002	<50.0	72.3	<50.0	72.3	72.3	1020.0
FS03	1	7/9/2020	<0.00202	<0.00202	<50.2	1410.0	281	1410.0	1690.0	7320.0
FS03A	2	9/3/2020	<0.002	<0.002	<50.1	78.3	<50.1	78.3	78.3	834.0
FS04	1	7/9/2020	<0.00202	<0.00202	<50.0	1380.0	256	1380.0	1640.0	9550.0
FS04A	2	9/3/2020	<0.0020	<0.002	<50.3	92.7	<50.3	92.7	92.7	827.0
FS05	1.5	7/9/2020	<0.00201	<0.00201	<49.9	1240.0	231	1240.0	1470.0	7160.0
FS05A	2.5	9/3/2020	<0.00199	<0.0199	<50.0	<50.0	<50.0	<50.0	<50.0	561.0
FS06	1.5	7/9/2020	<0.00199	<0.00199	<50.0	1620	263.0	1620	1880.0	8660.0
FS06A	2	9/3/2020	<0.002	<0.002	<50.3	62.9	<50.3	62.9	62.9	497.0
FS07	1	7/9/2020	<0.00200	<0.00200	<49.9	1550.0	261	1550.0	1810.0	8270.0
FS07A	2	9/3/2020	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	582.0
FS08	1.5	7/9/2020	<0.00201	<0.00201	<50.0	1490.0	278	1490.0	1770.0	10500.0
FS08A	2	9/3/2020	<0.002	<0.002	<50.0	<50.0	<50.0	<50.0	<50.0	478.0
FS09	1	7/9/2020	<0.00201	<0.00201	<50.3	1410.0	257	1410.0	1670.0	10100.0
FS09A	2	9/3/2020	<0.002	<0.002	<50.0	82.5	<50.0	82.5	82.5	862.0
FS10	1	7/9/2020	<0.00202	<0.00202	<50.0	1450	278	1450	1730	10500.0
FS10A	2	9/3/2020	<0.00198	<0.00198	<50.3	86.5	<50.3	86.5	86.5	789.0
FS11	1	7/9/2020	<0.00202	<0.00202	<50.0	1740	348	1740	2090	10000.0
FS11A	2	9/3/2020	<0.002	<0.002	<50.3	80.9	<50.3	80.9	80.9	914.0
DS01	2.5	7/9/2020	<0.00202	<0.00202	<50.1	143	161	143	304	30.4
DS02	2	7/9/2020	<0.00202	<0.00202	<49.8	129	168	129	297	13.7
NMOCD Table 1 Closure Criteria			10	50	NE	NE	NE	1,000	2,500	10000.0



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

Attachment 01



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C 04418
 Well owner: WPX Energy Phone No.: _____
 Mailing address: 5315 Buena Vista Drive
 City: Carlsbad State: NM Zip code: 88220

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: HRL Compliance Solutions
- 2) New Mexico Well Driller License No.: 1789 Expiration Date: 12/20/2020
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
Kalvin (Kelly) Padilla
- 4) Date well plugging began: 4/3/2020 Date well plugging concluded: 4/3/2020
- 5) GPS Well Location: Latitude: 32 deg, 19 min, 29.6 sec
 Longitude: -104 deg, 02 min, 33.7 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (bgl),
 by the following manner: Measuring Tape
- 7) Static water level measured at initiation of plugging: > 55 ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: Not Applicabl
- 9) Were all plugging activities consistent with an approved plugging plan? Not Applicable If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:**

III. SIGNATURE:

Signature of Well Driller

4/23/2020
Date



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C 04417
 Well owner: WPX Energy Phone No.: _____
 Mailing address: 5315 Buena Vista Drive
 City: Carlsbad State: NM Zip code: 88220

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: HRL Compliance Solutions
- 2) New Mexico Well Driller License No.: 1789 Expiration Date: 12/20/2020
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
Kalvin (Kelly) Padilla
- 4) Date well plugging began: 4/3/2020 Date well plugging concluded: 4/3/2020
- 5) GPS Well Location: Latitude: 32 deg, 20 min, 35.4 sec
 Longitude: -104 deg, 02 min, 47.1 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (bgl),
 by the following manner: Measuring Tape
- 7) Static water level measured at initiation of plugging: > 55 ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: Not Applicable
- 9) Were all plugging activities consistent with an approved plugging plan? Not Applicable If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:**

MULTIPLY		BY	AND OBTAIN
cubic feet	x	7.4805	= gallons
cubic yards	x	201.97	= gallons

I, Mark Mumby, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Date _____

Attachment 02



Picture 1- South face, northwest edge of Site

15-Jun-20



3-Sep-20



Picture 2- South face, west edge of Site

15-Jun-20



3-Sep-20





Picture 3- North face, facing entrance to location

15-Jun-20



3-Sep-20

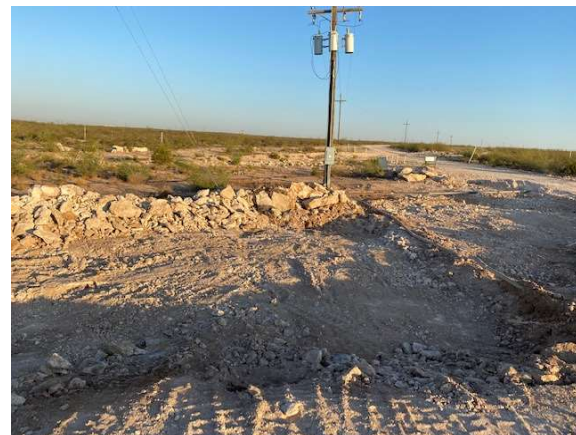


Picture 4- Northeast face, east edge of excavation

15-Jun-20



3-Sep-20



Attachment 03



Xenco

Certificate of Analysis Summary 666861

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 1-44

Project Id: 06152020

Contact: Lynda Laumbach

Project Location:

Date Received in Lab: Fri 07.10.2020 11:15

Report Date: 07.14.2020 14:11

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	666861-001	666861-002				
	Field Id:	DS01	DS02				
	Depth:	2.5- ft	2- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	07.09.2020 13:45	07.09.2020 14:00				
BTEX by EPA 8021B	Extracted:	07.10.2020 13:00	07.10.2020 13:00				
	Analyzed:	07.10.2020 17:09	07.10.2020 17:30				
	Units/RL:	mg/kg RL	mg/kg RL				
	Benzene	<0.00202 0.00202	<0.00202 0.00202				
	Toluene	<0.00202 0.00202	<0.00202 0.00202				
	Ethylbenzene	<0.00202 0.00202	<0.00202 0.00202				
	m,p-Xylenes	<0.00404 0.00404	<0.00404 0.00404				
	o-Xylene	<0.00202 0.00202	<0.00202 0.00202				
	Total Xylenes	<0.00202 0.00202	<0.00202 0.00202				
	Total BTEX	<0.00202 0.00202	<0.00202 0.00202				
Chloride by EPA 300	Extracted:	07.10.2020 14:00	07.10.2020 14:00				
	Analyzed:	07.10.2020 15:16	07.10.2020 15:22				
	Units/RL:	mg/kg RL	mg/kg RL				
	Chloride	30.4 10.0	13.7 9.92				
TPH By SW8015 Mod	Extracted:	07.10.2020 13:20	07.10.2020 13:20				
	Analyzed:	07.13.2020 10:43	07.10.2020 15:28				
	Units/RL:	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.1 50.1	<49.8 49.8				
	Diesel Range Organics (DRO)	143 50.1	129 49.8				
	Motor Oil Range Hydrocarbons (MRO)	161 50.1	168 49.8				
	Total TPH	304 50.1	297 49.8				

BRL - Below Reporting Limit

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

Jessica Kramer



Xenco

Analytical Report 666861

for

WPX Energy Permian Basin, LLC

Project Manager: Lynda Laumbach

Longview 1-44

06152020

07.14.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.14.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **666861**
Longview 1-44
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 Eurofins Xenco, LLC Report Number(s) 666861. 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 Eurofins Xenco, LLC. 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. 666861 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "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 666861****WPX Energy Permian Basin, LLC, Carlsbad, NM**

Longview 1-44

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
DS01	S	07.09.2020 13:45	2.5 ft	666861-001
DS02	S	07.09.2020 14:00	2 ft	666861-002



Xenco

CASE NARRATIVE

Client Name: WPX Energy Permian Basin, LLC

Project Name: Longview 1-44

Project ID: 06152020

Work Order Number(s): 666861

Report Date: 07.14.2020

Date Received: 07.10.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Xenco

Certificate of Analytical Results 666861

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **DS01** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666861-001 Date Collected: 07.09.2020 13:45 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.4	10.0	mg/kg	07.10.2020 15:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	07.13.2020 10:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	143	50.1	mg/kg	07.13.2020 10:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	161	50.1	mg/kg	07.13.2020 10:43		1
Total TPH	PHC635	304	50.1	mg/kg	07.13.2020 10:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	07.13.2020 10:43	
o-Terphenyl	84-15-1	70	%	70-135	07.13.2020 10:43	



Certificate of Analytical Results 666861

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **DS01**
Lab Sample Id: 666861-001

Matrix: Soil
Date Collected: 07.09.2020 13:45

Date Received: 07.10.2020 11:15
Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 17:09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 17:09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 17:09	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 17:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 17:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 17:09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 17:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 17:09		
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.10.2020 17:09		



Xenco

Certificate of Analytical Results 666861

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **DS02** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666861-002 Date Collected: 07.09.2020 14:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.7	9.92	mg/kg	07.10.2020 15:22		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.10.2020 15:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	129	49.8	mg/kg	07.10.2020 15:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	168	49.8	mg/kg	07.10.2020 15:28		1
Total TPH	PHC635	297	49.8	mg/kg	07.10.2020 15:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.10.2020 15:28	
o-Terphenyl	84-15-1	72	%	70-135	07.10.2020 15:28	



Certificate of Analytical Results 666861

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **DS02**
Lab Sample Id: 666861-002

Matrix: Soil
Date Collected: 07.09.2020 14:00

Date Received: 07.10.2020 11:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 17:30	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 17:30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 17:30	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 17:30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 17:30	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 17:30	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 17:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.10.2020 17:30		
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.10.2020 17:30		

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

WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: Chloride by EPA 300

Seq Number: 3131392

MB Sample Id: 7707139-1-BLK

Matrix: Solid

LCS Sample Id: 7707139-1-BKS

Prep Method: E300P

Date Prep: 07.10.2020

LCSD Sample Id: 7707139-1-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	243	97	255	102	90-110	5	20	mg/kg	07.10.2020 13:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3131392

Parent Sample Id: 666761-001

Matrix: Soil

MS Sample Id: 666761-001 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666761-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.7	200	226	102	227	102	90-110	0	20	mg/kg	07.10.2020 14:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3131392

Parent Sample Id: 666861-002

Matrix: Soil

MS Sample Id: 666861-002 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666861-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.7	200	217	102	217	102	90-110	0	20	mg/kg	07.10.2020 15:27	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

MB Sample Id: 7707153-1-BLK

Matrix: Solid

LCS Sample Id: 7707153-1-BKS

Prep Method: SW8015P

Date Prep: 07.10.2020

LCSD Sample Id: 7707153-1-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	1240	124	1230	123	70-135	1	35	mg/kg	07.10.2020 10:43	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1210	121	70-135	1	35	mg/kg	07.10.2020 10:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		111		114		70-135	%	07.10.2020 10:43
o-Terphenyl	83		97		99		70-135	%	07.10.2020 10:43

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

Matrix: Solid

MB Sample Id: 7707153-1-BLK

Prep Method: SW8015P

Date Prep: 07.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.10.2020 10:23	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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

WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW8015P

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 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)	<50.1	1000	1140	114	1150	115	70-135	1	35	mg/kg	07.10.2020 13:45	
Diesel Range Organics (DRO)	<50.1	1000	1140	114	1120	112	70-135	2	35	mg/kg	07.10.2020 13:45	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		98		70-135	%	07.10.2020 13:45
o-Terphenyl	74		83		70-135	%	07.10.2020 13:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131399

MB Sample Id: 7707124-1-BLK

Matrix: Solid

LCS Sample Id: 7707124-1-BKS

Prep Method: SW5035A

Date Prep: 07.10.2020

LCSD Sample Id: 7707124-1-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	0.110	110	0.116	116	70-130	5	35	mg/kg	07.10.2020 14:05	
Toluene	<0.00200	0.100	0.107	107	0.112	112	70-130	5	35	mg/kg	07.10.2020 14:05	
Ethylbenzene	<0.00200	0.100	0.103	103	0.108	108	71-129	5	35	mg/kg	07.10.2020 14:05	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.218	109	70-135	5	35	mg/kg	07.10.2020 14:05	
o-Xylene	<0.00200	0.100	0.102	102	0.106	106	71-133	4	35	mg/kg	07.10.2020 14:05	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		99		70-130	%	07.10.2020 14:05
4-Bromofluorobenzene	93		100		99		70-130	%	07.10.2020 14:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131399

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW5035A

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.121	121	0.124	124	70-130	2	35	mg/kg	07.10.2020 19:39	
Toluene	<0.00201	0.100	0.126	126	0.113	113	70-130	11	35	mg/kg	07.10.2020 19:39	
Ethylbenzene	<0.00201	0.100	0.120	120	0.101	101	71-129	17	35	mg/kg	07.10.2020 19:39	
m,p-Xylenes	<0.00402	0.201	0.242	120	0.202	101	70-135	18	35	mg/kg	07.10.2020 19:39	
o-Xylene	<0.00201	0.100	0.120	120	0.0989	99	71-133	19	35	mg/kg	07.10.2020 19:39	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	07.10.2020 19:39
4-Bromofluorobenzene	100		101		70-130	%	07.10.2020 19:39

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



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 (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No: 1661081

www.xenco.com Page 1 of 1

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

Program: ☒ UST/PST ☐ RP ☐ Rowfields ☐ RC ☐ \$ ☐ perfund State of Project:	
Reporting Level II ☐	Level III ☐
Deliverables: EDD ☐	ADAPT ☐
Other: ☐	

Project Name:	Leaview 1-44	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	06152020	Due Date:	07/17/2020	TAT starts the day received by the lab, if received by 4:30pm	
Project Location:	Lynda Laumbach	Wet Ice:	(Yes) No	Thermometer ID:	TN1007
Sample's Name:		Correction Factor:	-0.2	Temperature Reading:	3.7
PO #:		Corrected Temperature:	3.5		
SAMPLE RECEIPT Temp Blank: (Yes) No Wet Ice: (Yes) No Received Intact: (Yes) No Thermometer ID: TN1007 Cooler Custody Seals: Yes (No) N/A Correction Factor: -0.2 Sample Custody Seals: Yes (No) N/A Temperature Reading: 3.7 Total Containers: 2 Corrected Temperature: 3.5					
ANALYSIS REQUEST					
Chlorides (EPA 300.00) ☒ BTEX (Method 8021) ☒ TPH (Method 8015) ☒					
Preservative Codes None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NASO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC					
Sample Identification					
Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
DS 01	07/09/20	13:45	2.5'	G	1
DS 02	07/09/20	14:00	2'	G	1
(Large blue scribbles covering the remaining rows of the table)					

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of 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 of 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
		07/10/2020 11:15			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WPX Energy Permian Basin, LLC

Date/ Time Received: 07.10.2020 11.15.00 AM

Work Order #: 666861

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)?	3.5
#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

Samples received in bulk containers.

* 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: 07.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.14.2020



Xenco

Certificate of Analysis Summary 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 1-44

Project Id: 06152020

Contact: Lynda Laumbach

Project Location:

Date Received in Lab: Fri 07.10.2020 11:15

Report Date: 07.16.2020 15:13

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666865-001	666865-002	666865-003	666865-004	666865-005	666865-006
	<i>Field Id:</i>	FS01	SW01	SW02	SW03	FS02	FS03
	<i>Depth:</i>	1- ft	0-1 ft	0-1 ft	0-1.5 ft	1.5- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.09.2020 12:20	07.09.2020 12:25	07.09.2020 12:30	07.09.2020 12:35	07.09.2020 12:40	07.09.2020 12:45
BTEX by EPA 8021B	<i>Extracted:</i>	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00
	<i>Analyzed:</i>	07.10.2020 18:56	07.10.2020 19:18	07.10.2020 20:55	07.10.2020 21:17	07.10.2020 21:38	07.10.2020 22:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00404 0.00404	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	07.10.2020 14:00	07.10.2020 14:00	07.10.2020 14:00	07.10.2020 14:00	07.10.2020 14:00	07.10.2020 14:00
	<i>Analyzed:</i>	07.10.2020 16:06	07.10.2020 16:12	07.10.2020 16:17	07.10.2020 16:23	07.10.2020 16:29	07.10.2020 16:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		267 10.0	24.6 9.96	18.9 9.98	23.9 10.0	7420 100	7320 101
TPH By SW8015 Mod	<i>Extracted:</i>	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20
	<i>Analyzed:</i>	07.10.2020 16:50	07.10.2020 17:11	07.13.2020 11:48	07.13.2020 12:09	07.10.2020 18:34	07.10.2020 18:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.2 50.2
Diesel Range Organics (DRO)		305 50.3	146 50.0	121 50.3	144 50.2	1220 50.2	1410 50.2
Motor Oil Range Hydrocarbons (MRO)		125 50.3	183 50.0	179 50.3	171 50.2	225 50.2	281 50.2
Total TPH		430 50.3	329 50.0	300 50.3	315 50.2	1450 50.2	1690 50.2

BRL - Below Reporting Limit

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

Jessica Kramer



Xenco

Certificate of Analysis Summary 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 1-44

Project Id: 06152020

Contact: Lynda Laumbach

Project Location:

Date Received in Lab: Fri 07.10.2020 11:15

Report Date: 07.16.2020 15:13

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666865-007	666865-008	666865-009	666865-010	666865-011	666865-012
	<i>Field Id:</i>	FS04	FS05	FS06	FS07	FS08	FS09
	<i>Depth:</i>	1- ft	1.5- ft	1.5- ft	1- ft	1.5- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.09.2020 12:50	07.09.2020 13:00	07.09.2020 13:05	07.09.2020 13:10	07.09.2020 13:15	07.09.2020 13:20
BTEX by EPA 8021B	<i>Extracted:</i>	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 14:41	07.10.2020 14:41
	<i>Analyzed:</i>	07.10.2020 22:21	07.10.2020 22:42	07.10.2020 23:04	07.10.2020 23:25	07.10.2020 17:45	07.10.2020 18:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	07.10.2020 15:53	07.10.2020 15:53	07.10.2020 15:53	07.10.2020 15:53	07.10.2020 15:53	07.10.2020 15:53
	<i>Analyzed:</i>	07.10.2020 17:08	07.10.2020 17:24	07.10.2020 17:30	07.10.2020 17:36	07.10.2020 17:41	07.10.2020 17:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		9550 99.2	7160 99.0	8660 99.0	8270 101	10500 99.6	10100 99.2
TPH By SW8015 Mod	<i>Extracted:</i>	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20
	<i>Analyzed:</i>	07.10.2020 19:15	07.10.2020 19:35	07.10.2020 19:56	07.10.2020 20:16	07.10.2020 20:37	07.10.2020 20:57
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.3 50.3
Diesel Range Organics (DRO)		1380 50.0	1240 49.9	1620 50.0	1550 49.9	1490 50.0	1410 50.3
Motor Oil Range Hydrocarbons (MRO)		256 50.0	231 49.9	263 50.0	261 49.9	278 50.0	257 50.3
Total TPH		1640 50.0	1470 49.9	1880 50.0	1810 49.9	1770 50.0	1670 50.3

BRL - Below Reporting Limit

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

Jessica Kramer



Xenco

Certificate of Analysis Summary 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 1-44

Project Id: 06152020

Contact: Lynda Laumbach

Project Location:

Date Received in Lab: Fri 07.10.2020 11:15

Report Date: 07.16.2020 15:13

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	666865-013	666865-014				
	Field Id:	FS10	FS11				
	Depth:	1- ft	1- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	07.09.2020 13:25	07.09.2020 13:30				
BTEX by EPA 8021B	Extracted:	07.10.2020 14:41	07.10.2020 14:41				
	Analyzed:	07.10.2020 18:25	07.10.2020 18:46				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00202 0.00202	<0.00202 0.00202				
Toluene		<0.00202 0.00202	<0.00202 0.00202				
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202				
m,p-Xylenes		<0.00404 0.00404	<0.00404 0.00404				
o-Xylene		<0.00202 0.00202	<0.00202 0.00202				
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202				
Total BTEX		<0.00202 0.00202	<0.00202 0.00202				
Chloride by EPA 300	Extracted:	07.10.2020 15:53	07.10.2020 15:53				
	Analyzed:	07.10.2020 18:03	07.10.2020 18:09				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		10500 100	10000 100				
TPH By SW8015 Mod	Extracted:	07.13.2020 13:30	07.13.2020 13:30				
	Analyzed:	07.13.2020 15:27	07.13.2020 16:28				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0				
Diesel Range Organics (DRO)		1450 50.0	1740 50.0				
Motor Oil Range Hydrocarbons (MRO)		278 50.0	348 50.0				
Total TPH		1730 50.0	2090 50.0				

BRL - Below Reporting Limit

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

Jessica Kramer



Xenco

Analytical Report 666865

for

WPX Energy Permian Basin, LLC

Project Manager: Lynda Laumbach

Longview 1-44

06152020

07.16.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.16.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **666865**
Longview 1-44
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 Eurofins Xenco, LLC Report Number(s) 666865. 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 Eurofins Xenco, LLC. 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. 666865 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "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



Xenco

Sample Cross Reference 666865**WPX Energy Permian Basin, LLC, Carlsbad, NM**

Longview 1-44

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	07.09.2020 12:20	1 ft	666865-001
SW01	S	07.09.2020 12:25	0 - 1 ft	666865-002
SW02	S	07.09.2020 12:30	0 - 1 ft	666865-003
SW03	S	07.09.2020 12:35	0 - 1.5 ft	666865-004
FS02	S	07.09.2020 12:40	1.5 ft	666865-005
FS03	S	07.09.2020 12:45	1 ft	666865-006
FS04	S	07.09.2020 12:50	1 ft	666865-007
FS05	S	07.09.2020 13:00	1.5 ft	666865-008
FS06	S	07.09.2020 13:05	1.5 ft	666865-009
FS07	S	07.09.2020 13:10	1 ft	666865-010
FS08	S	07.09.2020 13:15	1.5 ft	666865-011
FS09	S	07.09.2020 13:20	1 ft	666865-012
FS10	S	07.09.2020 13:25	1 ft	666865-013
FS11	S	07.09.2020 13:30	1 ft	666865-014



Xenco

CASE NARRATIVE

Client Name: WPX Energy Permian Basin, LLC

Project Name: Longview 1-44

Project ID: 06152020
Work Order Number(s): 666865

Report Date: 07.16.2020
Date Received: 07.10.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS01** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-001 Date Collected: 07.09.2020 12:20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	267	10.0	mg/kg	07.10.2020 16:06		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	07.10.2020 16:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	305	50.3	mg/kg	07.10.2020 16:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	125	50.3	mg/kg	07.10.2020 16:50		1
Total TPH	PHC635	430	50.3	mg/kg	07.10.2020 16:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.10.2020 16:50	
o-Terphenyl	84-15-1	76	%	70-135	07.10.2020 16:50	



Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS01**
Lab Sample Id: 666865-001

Matrix: Soil
Date Collected: 07.09.2020 12:20

Date Received: 07.10.2020 11:15
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 18:56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 18:56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 18:56	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.10.2020 18:56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 18:56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 18:56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 18:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	07.10.2020 18:56	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.10.2020 18:56	



Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **SW01** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-002 Date Collected: 07.09.2020 12:25 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.6	9.96	mg/kg	07.10.2020 16:12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.10.2020 17:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	146	50.0	mg/kg	07.10.2020 17:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	183	50.0	mg/kg	07.10.2020 17:11		1
Total TPH	PHC635	329	50.0	mg/kg	07.10.2020 17:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.10.2020 17:11	
o-Terphenyl	84-15-1	75	%	70-135	07.10.2020 17:11	



Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **SW01**
Lab Sample Id: 666865-002

Matrix: Soil
Date Collected: 07.09.2020 12:25

Date Received: 07.10.2020 11:15
Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.2020 19:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.2020 19:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.2020 19:18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.10.2020 19:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.2020 19:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.2020 19:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.10.2020 19:18	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.10.2020 19:18	



Xenco

Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **SW02** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-003 Date Collected: 07.09.2020 12:30 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.9	9.98	mg/kg	07.10.2020 16:17		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	07.13.2020 11:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	121	50.3	mg/kg	07.13.2020 11:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	179	50.3	mg/kg	07.13.2020 11:48		1
Total TPH	PHC635	300	50.3	mg/kg	07.13.2020 11:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	07.13.2020 11:48	
o-Terphenyl	84-15-1	94	%	70-135	07.13.2020 11:48	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **SW02**
Lab Sample Id: 666865-003

Matrix: Soil
Date Collected: 07.09.2020 12:30

Date Received: 07.10.2020 11:15
Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.2020 20:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.2020 20:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.2020 20:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.2020 20:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.2020 20:55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.2020 20:55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.2020 20:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.10.2020 20:55	
4-Bromofluorobenzene	460-00-4	92	%	70-130	07.10.2020 20:55	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **SW03** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-004 Date Collected: 07.09.2020 12:35 Sample Depth: 0 - 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.9	10.0	mg/kg	07.10.2020 16:23		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.13.2020 12:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	144	50.2	mg/kg	07.13.2020 12:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	171	50.2	mg/kg	07.13.2020 12:09		1
Total TPH	PHC635	315	50.2	mg/kg	07.13.2020 12:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.13.2020 12:09	
o-Terphenyl	84-15-1	92	%	70-135	07.13.2020 12:09	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **SW03**
Lab Sample Id: 666865-004

Matrix: Soil
Date Collected: 07.09.2020 12:35

Date Received: 07.10.2020 11:15
Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3131399

Prep Method: SW5035A

% Moisture:

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 21:17	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 21:17	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 21:17	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 21:17	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 21:17	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 21:17	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 21:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.10.2020 21:17	
4-Bromofluorobenzene	460-00-4	100	%	70-130	07.10.2020 21:17	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS02** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-005 Date Collected: 07.09.2020 12:40 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7420	100	mg/kg	07.10.2020 16:29		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.10.2020 18:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	1220	50.2	mg/kg	07.10.2020 18:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	225	50.2	mg/kg	07.10.2020 18:34		1
Total TPH	PHC635	1450	50.2	mg/kg	07.10.2020 18:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.10.2020 18:34	
o-Terphenyl	84-15-1	73	%	70-135	07.10.2020 18:34	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS02**
Lab Sample Id: 666865-005

Matrix: Soil
Date Collected: 07.09.2020 12:40

Date Received: 07.10.2020 11:15
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.10.2020 21:38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.10.2020 21:38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.10.2020 21:38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.10.2020 21:38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.10.2020 21:38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.10.2020 21:38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.10.2020 21:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.10.2020 21:38		
4-Bromofluorobenzene	460-00-4	95	%	70-130	07.10.2020 21:38		



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS03** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-006 Date Collected: 07.09.2020 12:45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7320	101	mg/kg	07.10.2020 16:34		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.10.2020 18:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	1410	50.2	mg/kg	07.10.2020 18:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	281	50.2	mg/kg	07.10.2020 18:54		1
Total TPH	PHC635	1690	50.2	mg/kg	07.10.2020 18:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.10.2020 18:54	
o-Terphenyl	84-15-1	83	%	70-135	07.10.2020 18:54	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS03**
Lab Sample Id: 666865-006

Matrix: Soil
Date Collected: 07.09.2020 12:45

Date Received: 07.10.2020 11:15
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 22:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 22:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 22:00	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 22:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 22:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 22:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 22:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.10.2020 22:00	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 22:00	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS04** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-007 Date Collected: 07.09.2020 12:50 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9550	99.2	mg/kg	07.10.2020 17:08		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.10.2020 19:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	1380	50.0	mg/kg	07.10.2020 19:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	256	50.0	mg/kg	07.10.2020 19:15		1
Total TPH	PHC635	1640	50.0	mg/kg	07.10.2020 19:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	07.10.2020 19:15	
o-Terphenyl	84-15-1	77	%	70-135	07.10.2020 19:15	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS04** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-007 Date Collected: 07.09.2020 12:50 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 13:00 Basis: Wet Weight
 Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 22:21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 22:21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 22:21	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.10.2020 22:21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 22:21	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 22:21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 22:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 22:21		
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.10.2020 22:21		



Xenco

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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS05** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-008 Date Collected: 07.09.2020 13:00 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7160	99.0	mg/kg	07.10.2020 17:24		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.10.2020 19:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	1240	49.9	mg/kg	07.10.2020 19:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	231	49.9	mg/kg	07.10.2020 19:35		1
Total TPH	PHC635	1470	49.9	mg/kg	07.10.2020 19:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.10.2020 19:35	
o-Terphenyl	84-15-1	81	%	70-135	07.10.2020 19:35	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS05** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-008 Date Collected: 07.09.2020 13:00 Sample Depth: 1.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 13:00 Basis: Wet Weight
 Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.10.2020 22:42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.10.2020 22:42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.10.2020 22:42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.10.2020 22:42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.10.2020 22:42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.10.2020 22:42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.10.2020 22:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.10.2020 22:42		
4-Bromofluorobenzene	460-00-4	124	%	70-130	07.10.2020 22:42		



Xenco

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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS06** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-009 Date Collected: 07.09.2020 13:05 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8660	99.0	mg/kg	07.10.2020 17:30		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.10.2020 19:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	1620	50.0	mg/kg	07.10.2020 19:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	263	50.0	mg/kg	07.10.2020 19:56		1
Total TPH	PHC635	1880	50.0	mg/kg	07.10.2020 19:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.10.2020 19:56	
o-Terphenyl	84-15-1	79	%	70-135	07.10.2020 19:56	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS06**
Lab Sample Id: 666865-009

Matrix: Soil
Date Collected: 07.09.2020 13:05

Date Received: 07.10.2020 11:15
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.2020 23:04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.2020 23:04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.2020 23:04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.2020 23:04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.2020 23:04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.2020 23:04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.2020 23:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.10.2020 23:04	
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.10.2020 23:04	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS07** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-010 Date Collected: 07.09.2020 13:10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8270	101	mg/kg	07.10.2020 17:36		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.10.2020 20:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	1550	49.9	mg/kg	07.10.2020 20:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	261	49.9	mg/kg	07.10.2020 20:16		1
Total TPH	PHC635	1810	49.9	mg/kg	07.10.2020 20:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.10.2020 20:16	
o-Terphenyl	84-15-1	77	%	70-135	07.10.2020 20:16	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS07** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-010 Date Collected: 07.09.2020 13:10 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 13:00 Basis: Wet Weight
 Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.2020 23:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.2020 23:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.2020 23:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.10.2020 23:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.2020 23:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.2020 23:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.2020 23:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.10.2020 23:25		
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.10.2020 23:25		



Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS08** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-011 Date Collected: 07.09.2020 13:15 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10500	99.6	mg/kg	07.10.2020 17:41		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.10.2020 20:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	1490	50.0	mg/kg	07.10.2020 20:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	278	50.0	mg/kg	07.10.2020 20:37		1
Total TPH	PHC635	1770	50.0	mg/kg	07.10.2020 20:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.10.2020 20:37	
o-Terphenyl	84-15-1	78	%	70-135	07.10.2020 20:37	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS08** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-011 Date Collected: 07.09.2020 13:15 Sample Depth: 1.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:41 Basis: Wet Weight
 Seq Number: 3131407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.10.2020 17:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.10.2020 17:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.10.2020 17:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.10.2020 17:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.10.2020 17:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.10.2020 17:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.10.2020 17:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.10.2020 17:45		
4-Bromofluorobenzene	460-00-4	102	%	70-130	07.10.2020 17:45		



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS09** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-012 Date Collected: 07.09.2020 13:20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10100	99.2	mg/kg	07.10.2020 17:58		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	07.10.2020 20:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	1410	50.3	mg/kg	07.10.2020 20:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	257	50.3	mg/kg	07.10.2020 20:57		1
Total TPH	PHC635	1670	50.3	mg/kg	07.10.2020 20:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.10.2020 20:57	
o-Terphenyl	84-15-1	75	%	70-135	07.10.2020 20:57	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS09** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-012 Date Collected: 07.09.2020 13:20 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:41 Basis: Wet Weight
 Seq Number: 3131407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.10.2020 18:05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.10.2020 18:05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.10.2020 18:05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.10.2020 18:05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.10.2020 18:05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.10.2020 18:05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.10.2020 18:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	07.10.2020 18:05		
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.10.2020 18:05		



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS10** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-013 Date Collected: 07.09.2020 13:25 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10500	100	mg/kg	07.10.2020 18:03		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.13.2020 13:30 Basis: Wet Weight
 Seq Number: 3131564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.13.2020 15:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	1450	50.0	mg/kg	07.13.2020 15:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	278	50.0	mg/kg	07.13.2020 15:27		1
Total TPH	PHC635	1730	50.0	mg/kg	07.13.2020 15:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	07.13.2020 15:27	
o-Terphenyl	84-15-1	105	%	70-135	07.13.2020 15:27	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS10** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-013 Date Collected: 07.09.2020 13:25 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:41 Basis: Wet Weight
 Seq Number: 3131407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 18:25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 18:25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 18:25	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 18:25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 18:25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 18:25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 18:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	07.10.2020 18:25		
4-Bromofluorobenzene	460-00-4	98	%	70-130	07.10.2020 18:25		



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS11** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-014 Date Collected: 07.09.2020 13:30 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 15:53 Basis: Wet Weight
 Seq Number: 3131394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10000	100	mg/kg	07.10.2020 18:09		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.13.2020 13:30 Basis: Wet Weight
 Seq Number: 3131564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.13.2020 16:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	1740	50.0	mg/kg	07.13.2020 16:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	348	50.0	mg/kg	07.13.2020 16:28		1
Total TPH	PHC635	2090	50.0	mg/kg	07.13.2020 16:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	07.13.2020 16:28	
o-Terphenyl	84-15-1	104	%	70-135	07.13.2020 16:28	



Certificate of Analytical Results 666865

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS11** Matrix: Soil Date Received: 07.10.2020 11:15
 Lab Sample Id: 666865-014 Date Collected: 07.09.2020 13:30 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.10.2020 14:41 Basis: Wet Weight
 Seq Number: 3131407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 18:46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 18:46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 18:46	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 18:46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 18:46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 18:46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 18:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 18:46		
4-Bromofluorobenzene	460-00-4	102	%	70-130	07.10.2020 18:46		

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

WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: Chloride by EPA 300

Seq Number: 3131392

MB Sample Id: 7707139-1-BLK

Matrix: Solid

LCS Sample Id: 7707139-1-BKS

Prep Method: E300P

Date Prep: 07.10.2020

LCSD Sample Id: 7707139-1-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	243	97	255	102	90-110	5	20	mg/kg	07.10.2020 13:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3131394

MB Sample Id: 7707141-1-BLK

Matrix: Solid

LCS Sample Id: 7707141-1-BKS

Prep Method: E300P

Date Prep: 07.10.2020

LCSD Sample Id: 7707141-1-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	244	98	255	102	90-110	4	20	mg/kg	07.10.2020 16:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3131392

Parent Sample Id: 666761-001

Matrix: Soil

MS Sample Id: 666761-001 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666761-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.7	200	226	102	227	102	90-110	0	20	mg/kg	07.10.2020 14:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3131392

Parent Sample Id: 666861-002

Matrix: Soil

MS Sample Id: 666861-002 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666861-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.7	200	217	102	217	102	90-110	0	20	mg/kg	07.10.2020 15:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3131394

Parent Sample Id: 666865-007

Matrix: Soil

MS Sample Id: 666865-007 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666865-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9550	199	9730	90	9730	90	90-110	0	20	mg/kg	07.10.2020 17:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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

WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

MB Sample Id: 7707153-1-BLK

Matrix: Solid

LCS Sample Id: 7707153-1-BKS

Prep Method: SW8015P

Date Prep: 07.10.2020

LCSD Sample Id: 7707153-1-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	1240	124	1230	123	70-135	1	35	mg/kg	07.10.2020 10:43	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1210	121	70-135	1	35	mg/kg	07.10.2020 10:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		111		114		70-135	%	07.10.2020 10:43
o-Terphenyl	83		97		99		70-135	%	07.10.2020 10:43

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131564

MB Sample Id: 7707281-1-BLK

Matrix: Solid

LCS Sample Id: 7707281-1-BKS

Prep Method: SW8015P

Date Prep: 07.13.2020

LCSD Sample Id: 7707281-1-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	1170	117	1080	108	70-135	8	35	mg/kg	07.13.2020 14:46	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1100	110	70-135	10	35	mg/kg	07.13.2020 14:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		124		115		70-135	%	07.13.2020 14:46
o-Terphenyl	113		120		111		70-135	%	07.13.2020 14:46

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

Matrix: Solid

MB Sample Id: 7707153-1-BLK

Prep Method: SW8015P

Date Prep: 07.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.10.2020 10:23	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131564

Matrix: Solid

MB Sample Id: 7707281-1-BLK

Prep Method: SW8015P

Date Prep: 07.13.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.13.2020 14:26	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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

WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW8015P

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 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)	<50.1	1000	1140	114	1150	115	70-135	1	35	mg/kg	07.10.2020 13:45	
Diesel Range Organics (DRO)	<50.1	1000	1140	114	1120	112	70-135	2	35	mg/kg	07.10.2020 13:45	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		98		70-135	%	07.10.2020 13:45
o-Terphenyl	74		83		70-135	%	07.10.2020 13:45

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131564

Parent Sample Id: 666865-013

Matrix: Soil

MS Sample Id: 666865-013 S

Prep Method: SW8015P

Date Prep: 07.13.2020

MSD Sample Id: 666865-013 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)	<50.0	1000	1340	134	1320	132	70-135	2	35	mg/kg	07.13.2020 15:47	
Diesel Range Organics (DRO)	1450	1000	2550	110	2550	110	70-135	0	35	mg/kg	07.13.2020 15:47	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		133		70-135	%	07.13.2020 15:47
o-Terphenyl	107		105		70-135	%	07.13.2020 15:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131399

MB Sample Id: 7707124-1-BLK

Matrix: Solid

LCS Sample Id: 7707124-1-BKS

Prep Method: SW5035A

Date Prep: 07.10.2020

LCSD Sample Id: 7707124-1-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	0.110	110	0.116	116	70-130	5	35	mg/kg	07.10.2020 14:05	
Toluene	<0.00200	0.100	0.107	107	0.112	112	70-130	5	35	mg/kg	07.10.2020 14:05	
Ethylbenzene	<0.00200	0.100	0.103	103	0.108	108	71-129	5	35	mg/kg	07.10.2020 14:05	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.218	109	70-135	5	35	mg/kg	07.10.2020 14:05	
o-Xylene	<0.00200	0.100	0.102	102	0.106	106	71-133	4	35	mg/kg	07.10.2020 14:05	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		99		70-130	%	07.10.2020 14:05
4-Bromofluorobenzene	93		100		99		70-130	%	07.10.2020 14:05

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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

WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131407

MB Sample Id: 7707137-1-BLK

Matrix: Solid

LCS Sample Id: 7707137-1-BKS

Prep Method: SW5035A

Date Prep: 07.10.2020

LCSD Sample Id: 7707137-1-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	0.0946	95	0.0981	98	70-130	4	35	mg/kg	07.10.2020 15:48	
Toluene	<0.00200	0.100	0.0915	92	0.0947	95	70-130	3	35	mg/kg	07.10.2020 15:48	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.102	102	71-129	5	35	mg/kg	07.10.2020 15:48	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.204	102	70-135	3	35	mg/kg	07.10.2020 15:48	
o-Xylene	<0.00200	0.100	0.0979	98	0.101	101	71-133	3	35	mg/kg	07.10.2020 15:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		97		70-130	%	07.10.2020 15:48
4-Bromofluorobenzene	102		96		93		70-130	%	07.10.2020 15:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131399

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW5035A

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.121	121	0.124	124	70-130	2	35	mg/kg	07.10.2020 19:39	
Toluene	<0.00201	0.100	0.126	126	0.113	113	70-130	11	35	mg/kg	07.10.2020 19:39	
Ethylbenzene	<0.00201	0.100	0.120	120	0.101	101	71-129	17	35	mg/kg	07.10.2020 19:39	
m,p-Xylenes	<0.00402	0.201	0.242	120	0.202	101	70-135	18	35	mg/kg	07.10.2020 19:39	
o-Xylene	<0.00201	0.100	0.120	120	0.0989	99	71-133	19	35	mg/kg	07.10.2020 19:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	07.10.2020 19:39
4-Bromofluorobenzene	100		101		70-130	%	07.10.2020 19:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131407

Parent Sample Id: 666865-011

Matrix: Soil

MS Sample Id: 666865-011 S

Prep Method: SW5035A

Date Prep: 07.10.2020

MSD Sample Id: 666865-011 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	0.100	0.107	107	0.101	100	70-130	6	35	mg/kg	07.10.2020 19:06	
Toluene	<0.00200	0.100	0.103	103	0.0969	96	70-130	6	35	mg/kg	07.10.2020 19:06	
Ethylbenzene	<0.00200	0.100	0.107	107	0.101	100	71-129	6	35	mg/kg	07.10.2020 19:06	
m,p-Xylenes	<0.00401	0.200	0.221	111	0.207	103	70-135	7	35	mg/kg	07.10.2020 19:06	
o-Xylene	<0.00200	0.100	0.107	107	0.102	101	71-133	5	35	mg/kg	07.10.2020 19:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	07.10.2020 19:06
4-Bromofluorobenzene	99		96		70-130	%	07.10.2020 19:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



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) 688-6707
Atlanta, GA (770) 449-8800

Work Order No: 666865

Page 1 of 2
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Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Energy Permian, LLC.	Company Name:	WPX Energy Permian, LLC.
Address:	5315 Buena Vista Dr	Address:	5315 Buena Vista Dr
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(505)725-1647	Email:	Lynda.Laumbach@wpxenergy.com

Work Order Comments									
Program: UST/ST		☐ PRP	☐ Rowfields	☐ RC	☐ \$perfund	☐	☐	☐	☐
State of Project:									
Reporting: level II		☐ Level III	☐ ST/UST	☐ PRP	☐ Level IV	☐	☐	☐	☐
Deliverables: EDD		☐	ADAPT	☐	Other:				

Project Name:	Longview Hwy				Turn Around	
Project Number:	06152020				☒ Routine ☐ Rush	
Project Location					Due Date:	07/17/2020
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:	5622	3.7	ANM00
Cooler Custody Seals:	Yes	No	Correction Factor:		-0.2	
Sample Custody Seals:	Yes	No	Temperature Reading:		3.7	
Total Containers:	14		Corrected Temperature:		3.5	

ANALYSIS REQUEST										Preservative Codes	
Press. Code											
										None: NO	DI Water: H ₂ O
										Cool: Cool	MeOH: Me
										HCL: HC	HNO ₃ : HN
										H ₂ SO ₄ : H ₂	NaOH: Na
										H ₃ PO ₄ : HP	
										NaHSO ₄ : NABIS	
										Na ₂ S ₂ O ₃ : NASO ₃	
										Zn Acetate+NaOH: Zn	
										NaOH+Ascorbic Acid: SAPC	

[illegible]

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of 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 of 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
1			07/19/2020 11:15			
2						
3						
4						
5						
6						



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) 986-3199, 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:

level 8105

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Page

2 of 2

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

Work Order Comments Program: UST/PST ☐ PRP ☐ Rowfields ☐ RC ☐ ☐ Defund State of Project: Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other:	
---	--

Project Name:	Logan 1-44	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	06152020	Due Date:	07/17/20		
Project Location:	Lynda Laumbach	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Lynda Laumbach				
PO #:					
SAMPLE RECEIPT					
Received Intact:	Yes	No	Thermometer ID:	Yes	No
Cooler Custody Seals:	Yes	No	Correction Factor:		
Sample Custody Seals:	Yes	No	Temperature Reading:		
Isot Containers:	Yes	No	Corrected Temperature:		
Parameters					
Chlorides (EPA 300.00)					
BTEX (Method 8021)					
TPH (Method 8015)					
ANALYSIS REQUEST					
Preservative Codes					
None: NO					
Cool: Cool					
HCL: HCL					
H ₂ SO ₄ : H ₂					
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					
Sample Comments					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp
FS08	S	07/09/20	13:15	1.5'	C
FS09	S		13:20	1'	C
FS10	S		13:25	1'	C
FS11	S		13:30	1'	C

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA		Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U												
Notice: 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 of 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 of 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
		07/09/20 11:15			

Certificate of Analysis Summary 671826



WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 1-44

Project Id: 6152020
Contact: Lynda Laumbach
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 09.03.2020 15:15
Report Date: 09.09.2020 10:15
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	671826-001	671826-002	671826-003	671826-004	671826-005	671826-006
	<i>Field Id:</i>	FS02A	FS03A	FS04A	FS05A	FS06A	FS07A
	<i>Depth:</i>	2.5- ft	2- ft	2- ft	2.5- ft	2- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.03.2020 07:10	09.03.2020 07:15	09.03.2020 07:20	09.03.2020 07:30	09.03.2020 07:35	09.03.2020 07:40
BTEX by EPA 8021B SUB: T104704400-20-21	<i>Extracted:</i>	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45
	<i>Analyzed:</i>	09.03.2020 21:11	09.03.2020 21:32	09.03.2020 21:52	09.03.2020 22:12	09.03.2020 23:28	09.03.2020 23:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00400 0.00400	<0.00401 0.00401	<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	09.03.2020 16:43	09.03.2020 16:43	09.03.2020 16:43	09.03.2020 16:43	09.03.2020 16:43	09.03.2020 16:43
	<i>Analyzed:</i>	09.04.2020 00:20	09.04.2020 00:25	09.04.2020 00:31	09.04.2020 00:36	09.04.2020 00:53	09.04.2020 00:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1020 10.1	834 10.0	827 9.92	561 9.98	497 9.92	582 9.98
TPH By SW8015 Mod SUB: T104704400-20-21	<i>Extracted:</i>	09.03.2020 17:10	09.03.2020 17:10	09.03.2020 17:10	09.03.2020 17:10	09.03.2020 17:10	09.03.2020 17:10
	<i>Analyzed:</i>	09.03.2020 18:29	09.03.2020 18:49	09.03.2020 19:09	09.03.2020 19:29	09.03.2020 19:49	09.03.2020 20:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3	<49.9 49.9
Diesel Range Organics (DRO)		72.3 50.0	78.3 50.1	92.7 50.3	<50.0 50.0	62.9 50.3	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3	<49.9 49.9
Total TPH		72.3 50.0	78.3 50.1	92.7 50.3	<50.0 50.0	62.9 50.3	<49.9 49.9

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 1-44

Project Id: 6152020
 Contact: Lynda Laumbach
 Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 09.03.2020 15:15
 Report Date: 09.09.2020 10:15
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	671826-007	671826-008	671826-009	671826-010		
	Field Id:	FS08A	FS09A	FS10A	FS11A		
	Depth:	2- ft	2- ft	2- ft	2- ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	09.03.2020 07:50	09.03.2020 08:00	09.03.2020 08:05	09.03.2020 08:10		
BTEX by EPA 8021B SUB: T104704400-20-21	Extracted:	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45		
	Analyzed:	09.04.2020 00:09	09.04.2020 00:29	09.04.2020 00:49	09.04.2020 01:10		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00396 0.00396	<0.00401 0.00401		
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Chloride by EPA 300 SUB: T104704400-20-21	Extracted:	09.03.2020 16:43	09.03.2020 16:43	09.03.2020 16:43	09.03.2020 16:43		
	Analyzed:	09.04.2020 01:04	09.04.2020 01:10	09.04.2020 01:16	09.04.2020 01:21		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		478 10.1	862 10.0	789 10.1	914 9.92		
TPH By SW8015 Mod SUB: T104704400-20-21	Extracted:	09.04.2020 08:44	09.04.2020 08:44	09.04.2020 08:44	09.04.2020 10:20		
	Analyzed:	09.04.2020 11:34	09.04.2020 12:35	09.04.2020 12:55	09.04.2020 13:15		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		
Diesel Range Organics (DRO)		<50.0 50.0	82.5 50.0	86.5 50.3	80.9 50.3		
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		
Total TPH		<50.0 50.0	82.5 50.0	86.5 50.3	80.9 50.3		

BRL - Below Reporting Limit

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





Analytical Report 671826

for

WPX Energy Permian Basin, LLC

Project Manager: Lynda Laumbach

Longview 1-44

6152020

09.09.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.09.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **671826**
Longview 1-44
Project Address: Eddy County, New Mexico

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 Eurofins Xenco, LLC Report Number(s) 671826. 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 Eurofins Xenco, LLC. 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. 671826 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "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 671826**WPX Energy Permian Basin, LLC, Carlsbad, NM**

Longview 1-44

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS02A	S	09.03.2020 07:10	2.5 ft	671826-001
FS03A	S	09.03.2020 07:15	2 ft	671826-002
FS04A	S	09.03.2020 07:20	2 ft	671826-003
FS05A	S	09.03.2020 07:30	2.5 ft	671826-004
FS06A	S	09.03.2020 07:35	2 ft	671826-005
FS07A	S	09.03.2020 07:40	2 ft	671826-006
FS08A	S	09.03.2020 07:50	2 ft	671826-007
FS09A	S	09.03.2020 08:00	2 ft	671826-008
FS10A	S	09.03.2020 08:05	2 ft	671826-009
FS11A	S	09.03.2020 08:10	2 ft	671826-010



CASE NARRATIVE

Client Name: WPX Energy Permian Basin, LLC

Project Name: Longview 1-44

Project ID: 6152020
Work Order Number(s): 671826

Report Date: 09.09.2020
Date Received: 09.03.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: FS02A	Matrix: Soil	Date Received: 09.03.2020 15:15
Lab Sample Id: 671826-001	Date Collected: 09.03.2020 07:10	Sample Depth: 2.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 16:43	Basis: Wet Weight
Seq Number: 3136412		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1020	10.1	mg/kg	09.04.2020 00:20		1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.03.2020 17:10	Basis: Wet Weight
Seq Number: 3136390		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.03.2020 18:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	72.3	50.0	mg/kg	09.03.2020 18:29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.03.2020 18:29	U	1
Total TPH	PHC635	72.3	50.0	mg/kg	09.03.2020 18:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	09.03.2020 18:29	
o-Terphenyl	84-15-1	109	%	70-135	09.03.2020 18:29	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS02A**
Lab Sample Id: 671826-001

Matrix: Soil
Date Collected: 09.03.2020 07:10

Date Received: 09.03.2020 15:15
Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3136391

Prep Method: SW5035A

% Moisture:

Date Prep: 09.03.2020 15:45

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 21:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 21:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 21:11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.03.2020 21:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 21:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 21:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 21:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.03.2020 21:11	
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.03.2020 21:11	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS03A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-002 Date Collected: 09.03.2020 07:15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	834	10.0	mg/kg	09.04.2020 00:25		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 17:10 Basis: Wet Weight
 Seq Number: 3136390 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.03.2020 18:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	78.3	50.1	mg/kg	09.03.2020 18:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.03.2020 18:49	U	1
Total TPH	PHC635	78.3	50.1	mg/kg	09.03.2020 18:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	09.03.2020 18:49	
o-Terphenyl	84-15-1	110	%	70-135	09.03.2020 18:49	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS03A**
Lab Sample Id: 671826-002

Matrix: Soil
Date Collected: 09.03.2020 07:15

Date Received: 09.03.2020 15:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3136391

Prep Method: SW5035A

% Moisture:

Date Prep: 09.03.2020 15:45

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 21:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 21:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 21:32	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.03.2020 21:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 21:32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 21:32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 21:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.03.2020 21:32	
4-Bromofluorobenzene	460-00-4	96	%	70-130	09.03.2020 21:32	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS04A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-003 Date Collected: 09.03.2020 07:20 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	827	9.92	mg/kg	09.04.2020 00:31		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 17:10 Basis: Wet Weight
 Seq Number: 3136390 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.03.2020 19:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	92.7	50.3	mg/kg	09.03.2020 19:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.03.2020 19:09	U	1
Total TPH	PHC635	92.7	50.3	mg/kg	09.03.2020 19:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	09.03.2020 19:09	
o-Terphenyl	84-15-1	107	%	70-135	09.03.2020 19:09	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS04A**
Lab Sample Id: 671826-003

Matrix: Soil
Date Collected: 09.03.2020 07:20

Date Received: 09.03.2020 15:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3136391

Prep Method: SW5035A

% Moisture:

Date Prep: 09.03.2020 15:45

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 21:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 21:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 21:52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.03.2020 21:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 21:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 21:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.03.2020 21:52	
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.03.2020 21:52	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS05A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-004 Date Collected: 09.03.2020 07:30 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	561	9.98	mg/kg	09.04.2020 00:36		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 17:10 Basis: Wet Weight
 Seq Number: 3136390 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.03.2020 19:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.03.2020 19:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.03.2020 19:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.03.2020 19:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	09.03.2020 19:29	
o-Terphenyl	84-15-1	110	%	70-135	09.03.2020 19:29	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS05A**
Lab Sample Id: 671826-004

Matrix: Soil
Date Collected: 09.03.2020 07:30

Date Received: 09.03.2020 15:15
Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3136391

Prep Method: SW5035A

% Moisture:

Date Prep: 09.03.2020 15:45

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.03.2020 22:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.03.2020 22:12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.03.2020 22:12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.03.2020 22:12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.03.2020 22:12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.03.2020 22:12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.03.2020 22:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.03.2020 22:12	
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.03.2020 22:12	



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WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS06A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-005 Date Collected: 09.03.2020 07:35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	497	9.92	mg/kg	09.04.2020 00:53		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 17:10 Basis: Wet Weight
 Seq Number: 3136390 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.03.2020 19:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	62.9	50.3	mg/kg	09.03.2020 19:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.03.2020 19:49	U	1
Total TPH	PHC635	62.9	50.3	mg/kg	09.03.2020 19:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.03.2020 19:49	
o-Terphenyl	84-15-1	106	%	70-135	09.03.2020 19:49	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: FS06A	Matrix: Soil	Date Received: 09.03.2020 15:15
Lab Sample Id: 671826-005	Date Collected: 09.03.2020 07:35	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 23:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 23:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 23:28	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.03.2020 23:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 23:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 23:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 23:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.03.2020 23:28		
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.03.2020 23:28		



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS07A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-006 Date Collected: 09.03.2020 07:40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	582	9.98	mg/kg	09.04.2020 00:59		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 17:10 Basis: Wet Weight
 Seq Number: 3136390 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.03.2020 20:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.03.2020 20:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.03.2020 20:10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.03.2020 20:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.03.2020 20:10	
o-Terphenyl	84-15-1	106	%	70-135	09.03.2020 20:10	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: FS07A	Matrix: Soil	Date Received: 09.03.2020 15:15
Lab Sample Id: 671826-006	Date Collected: 09.03.2020 07:40	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 23:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 23:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 23:48	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.03.2020 23:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 23:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 23:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 23:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.03.2020 23:48		
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.03.2020 23:48		



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS08A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-007 Date Collected: 09.03.2020 07:50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	478	10.1	mg/kg	09.04.2020 01:04		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.04.2020 08:44 Basis: Wet Weight
 Seq Number: 3136594 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.04.2020 11:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.04.2020 11:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.04.2020 11:34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.04.2020 11:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.04.2020 11:34	
o-Terphenyl	84-15-1	106	%	70-135	09.04.2020 11:34	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS08A**
Lab Sample Id: 671826-007

Matrix: Soil
Date Collected: 09.03.2020 07:50

Date Received: 09.03.2020 15:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3136391

Prep Method: SW5035A

% Moisture:

Date Prep: 09.03.2020 15:45

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.04.2020 00:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.04.2020 00:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.04.2020 00:09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.04.2020 00:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.04.2020 00:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.04.2020 00:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.04.2020 00:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	09.04.2020 00:09	
1,4-Difluorobenzene	540-36-3	106	%	70-130	09.04.2020 00:09	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: FS09A	Matrix: Soil	Date Received: 09.03.2020 15:15
Lab Sample Id: 671826-008	Date Collected: 09.03.2020 08:00	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 16:43	Basis: Wet Weight
Seq Number: 3136412		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	862	10.0	mg/kg	09.04.2020 01:10		1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.04.2020 08:44	Basis: Wet Weight
Seq Number: 3136594		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.04.2020 12:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	82.5	50.0	mg/kg	09.04.2020 12:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.04.2020 12:35	U	1
Total TPH	PHC635	82.5	50.0	mg/kg	09.04.2020 12:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.04.2020 12:35	
o-Terphenyl	84-15-1	99	%	70-135	09.04.2020 12:35	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: FS09A	Matrix: Soil	Date Received: 09.03.2020 15:15
Lab Sample Id: 671826-008	Date Collected: 09.03.2020 08:00	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.04.2020 00:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.04.2020 00:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.04.2020 00:29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.04.2020 00:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.04.2020 00:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.04.2020 00:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.04.2020 00:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.04.2020 00:29		
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.04.2020 00:29		



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: FS10A	Matrix: Soil	Date Received: 09.03.2020 15:15
Lab Sample Id: 671826-009	Date Collected: 09.03.2020 08:05	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 16:43	Basis: Wet Weight
Seq Number: 3136412		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	789	10.1	mg/kg	09.04.2020 01:16		1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.04.2020 08:44	Basis: Wet Weight
Seq Number: 3136594		SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.04.2020 12:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	86.5	50.3	mg/kg	09.04.2020 12:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.04.2020 12:55	U	1
Total TPH	PHC635	86.5	50.3	mg/kg	09.04.2020 12:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.04.2020 12:55	
o-Terphenyl	84-15-1	101	%	70-135	09.04.2020 12:55	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS10A**
Lab Sample Id: 671826-009

Matrix: Soil
Date Collected: 09.03.2020 08:05

Date Received: 09.03.2020 15:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3136391

Prep Method: SW5035A

% Moisture:

Date Prep: 09.03.2020 15:45

Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.04.2020 00:49	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.04.2020 00:49	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.04.2020 00:49	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.04.2020 00:49	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.04.2020 00:49	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.04.2020 00:49	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.04.2020 00:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.04.2020 00:49	
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.04.2020 00:49	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS11A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-010 Date Collected: 09.03.2020 08:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	914	9.92	mg/kg	09.04.2020 01:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.04.2020 10:20 Basis: Wet Weight
 Seq Number: 3136594 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.04.2020 13:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	80.9	50.3	mg/kg	09.04.2020 13:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.04.2020 13:15	U	1
Total TPH	PHC635	80.9	50.3	mg/kg	09.04.2020 13:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.04.2020 13:15	
o-Terphenyl	84-15-1	102	%	70-135	09.04.2020 13:15	



Certificate of Analytical Results 671826

WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 1-44

Sample Id: **FS11A** Matrix: Soil Date Received: 09.03.2020 15:15
 Lab Sample Id: 671826-010 Date Collected: 09.03.2020 08:10 Sample Depth: 2 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 15:45 Basis: Wet Weight
 Seq Number: 3136391 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.04.2020 01:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.04.2020 01:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.04.2020 01:10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.04.2020 01:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.04.2020 01:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.04.2020 01:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.04.2020 01:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.04.2020 01:10		
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.04.2020 01:10		

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



WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: Chloride by EPA 300

Seq Number: 3136412

MB Sample Id: 7710783-1-BLK

Matrix: Solid

LCS Sample Id: 7710783-1-BKS

Prep Method: E300P

Date Prep: 09.03.2020

LCSD Sample Id: 7710783-1-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	266	106	268	107	90-110	1	20	mg/kg	09.03.2020 23:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3136412

Parent Sample Id: 671725-006

Matrix: Soil

MS Sample Id: 671725-006 S

Prep Method: E300P

Date Prep: 09.03.2020

MSD Sample Id: 671725-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2050	200	2260	105	2240	94	90-110	1	20	mg/kg	09.04.2020 00:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3136412

Parent Sample Id: 671826-010

Matrix: Soil

MS Sample Id: 671826-010 S

Prep Method: E300P

Date Prep: 09.03.2020

MSD Sample Id: 671826-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	914	199	1120	104	1110	98	90-110	1	20	mg/kg	09.04.2020 01:27	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3136390

MB Sample Id: 7710737-1-BLK

Matrix: Solid

LCS Sample Id: 7710737-1-BKS

Prep Method: SW8015P

Date Prep: 09.03.2020

LCSD Sample Id: 7710737-1-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	875	88	851	85	70-135	3	35	mg/kg	09.03.2020 12:24	
Diesel Range Organics (DRO)	<50.0	1000	992	99	954	95	70-135	4	35	mg/kg	09.03.2020 12:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		118		112		70-135	%	09.03.2020 12:24
o-Terphenyl	100		117		111		70-135	%	09.03.2020 12:24

Analytical Method: TPH By SW8015 Mod

Seq Number: 3136594

MB Sample Id: 7710811-1-BLK

Matrix: Solid

LCS Sample Id: 7710811-1-BKS

Prep Method: SW8015P

Date Prep: 09.04.2020

LCSD Sample Id: 7710811-1-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	872	87	859	86	70-135	2	35	mg/kg	09.04.2020 10:53	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	978	98	70-135	2	35	mg/kg	09.04.2020 10:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		117		115		70-135	%	09.04.2020 10:53
o-Terphenyl	106		118		114		70-135	%	09.04.2020 10:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3136390

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.03.2020

MB Sample Id: 7710737-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.03.2020 11:44	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3136594

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.04.2020

MB Sample Id: 7710811-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.04.2020 10:33	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3136390

Matrix: Soil

Prep Method: SW8015P

Date Prep: 09.03.2020

Parent Sample Id: 671718-001

MS Sample Id: 671718-001 S

MSD Sample Id: 671718-001 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)	<50.0	1000	892	89	863	86	70-135	3	35	mg/kg	09.03.2020 13:25	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	972	97	70-135	3	35	mg/kg	09.03.2020 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		120		70-135	%	09.03.2020 13:25
o-Terphenyl	124		119		70-135	%	09.03.2020 13:25

Analytical Method: TPH By SW8015 Mod

Seq Number: 3136594

Matrix: Soil

Prep Method: SW8015P

Date Prep: 09.04.2020

Parent Sample Id: 671826-007

MS Sample Id: 671826-007 S

MSD Sample Id: 671826-007 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	836	84	822	81	70-135	2	35	mg/kg	09.04.2020 11:54	
Diesel Range Organics (DRO)	<50.2	1000	959	96	964	95	70-135	1	35	mg/kg	09.04.2020 11:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		114		70-135	%	09.04.2020 11:54
o-Terphenyl	112		111		70-135	%	09.04.2020 11:54

 MS/MSD Percent Recovery
 Relative Percent Difference
 LCS/LCSD Recovery
 Log Difference

 $[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



WPX Energy Permian Basin, LLC

Longview 1-44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136391

MB Sample Id: 7710784-1-BLK

Matrix: Solid

LCS Sample Id: 7710784-1-BKS

Prep Method: SW5035A

Date Prep: 09.03.2020

LCSD Sample Id: 7710784-1-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	0.0990	99	0.0992	99	70-130	0	35	mg/kg	09.03.2020 17:12	
Toluene	<0.00200	0.100	0.0949	95	0.0929	93	70-130	2	35	mg/kg	09.03.2020 17:12	
Ethylbenzene	<0.00200	0.100	0.0991	99	0.0966	97	71-129	3	35	mg/kg	09.03.2020 17:12	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.198	99	70-135	1	35	mg/kg	09.03.2020 17:12	
o-Xylene	<0.00200	0.100	0.0986	99	0.0969	97	71-133	2	35	mg/kg	09.03.2020 17:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		104		99		70-130	%	09.03.2020 17:12
4-Bromofluorobenzene	100		94		92		70-130	%	09.03.2020 17:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136391

Parent Sample Id: 671725-001

Matrix: Soil

MS Sample Id: 671725-001 S

Prep Method: SW5035A

Date Prep: 09.03.2020

MSD Sample Id: 671725-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.102	102	0.0885	89	70-130	14	35	mg/kg	09.03.2020 17:53	
Toluene	<0.00199	0.0996	0.0954	96	0.0836	84	70-130	13	35	mg/kg	09.03.2020 17:53	
Ethylbenzene	<0.00199	0.0996	0.0962	97	0.0873	87	71-129	10	35	mg/kg	09.03.2020 17:53	
m,p-Xylenes	<0.00398	0.199	0.193	97	0.176	88	70-135	9	35	mg/kg	09.03.2020 17:53	
o-Xylene	<0.00199	0.0996	0.0970	97	0.0873	87	71-133	11	35	mg/kg	09.03.2020 17:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		96		70-130	%	09.03.2020 17:53
4-Bromofluorobenzene	97		91		70-130	%	09.03.2020 17:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



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) 565-3443, 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) 689-6707
Atlanta, GA (770) 449-8600

Work Order No: 671826

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Page 1 of 1

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

Work Order Comments	
Program: UST/ST ☐ PRP ☐ Rowfields ☐ RC ☐ \$ ☐ perfund ☐	
State of Project:	
Reporting: Level II ☐ Level III ☐ ST/UST ☐ PRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other: _____	

Project Name:	Longview 1-44		Turn Around		ANALYSIS REQUEST										Preservative Codes				
Project Number:	6152020		☒ Routine ☐ Rush		Pres. Code										None: NO		DI Water: H ₂ O		
Project Location	Eddy County, NM		Due Date: 09/14/2020												Cool: Cool		MeOH: Me		
Sampler's Name:	Lynda Laumbach		TAT starts the day received by the lab, if received by 4:30pm												HCL: HC		HNO ₃ : HN		
PO #:															H ₂ SO ₄ : H ₂		NaOH: Na		
SAMPLE RECEIPT			Temp Blank:	☒ Yes ☐ No	Wet Ice:	☐ Yes ☒ No											H ₃ PO ₄ : HP		
Received In tact:	☒ Yes ☐ No	Thermometer ID:	TMM-004												NaHSO ₄ : NABIS				
Cooler Custody Seals:	☐ Yes ☒ No	Correction Factor:	-0.2												Na ₂ S ₂ O ₃ : NaSO ₃				
Sample Custody Seals:	☐ Yes ☒ No	Temperature Reading:	6.2/6.0												Zn Acetate+NaOH: Zn				
Total Containers:	10	Corrected Temperature:													NaOH+Ascorbic Acid: SAAC				

[illegible]

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

[illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WPX Energy Permian Basin, LLC

Date/ Time Received: 09.03.2020 03.15.00 PM

Work Order #: 671826

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)?	6
#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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.03.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.09.2020