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-144 Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

# Proposed Alternative Method Permit or Closure Plan Application

Type of action:  Below grade tank registration  Permit of a pit or proposed alternative method  Closure of a pit, below-grade tank, or proposed alternative method  Modification to an existing permit/or registration  Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method  Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request  Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the
environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.  1.
Operator: _WPX Energy Production, LLC OGRID #:120782
Address: PO Box 640/721 S Main Aztec, NM 87410
Facility or well name: Rosa Unit #166A
API Number:         30-039-26282         OCD Permit Number:
U/L or Qtr/Qtr F Section 30 Township 31N Range 5W County: Rio Arriba
Center of Proposed Design: Latitude N36.873208 Longitude W107.404881 NAD83  Surface Owner: Federal State Private Tribal Trust or Indian Allotment
Pit: Subsection F, G or J of 19.15.17.11 NMAC   Temporary:   Drilling   Workover   Permanent   Emergency   Cavitation   P&A   Multi-Well Fluid Management   Low Chloride Drilling Fluid   yes   no   Lined   Unlined   Liner type: Thickness   mil   LLDPE   HDPE   PVC   Other   String-Reinforced   Liner Seams:   Welded   Factory   Other   Volume:   bbl Dimensions: L   x W   x D
3.    Subsection I of 19.15.17.11 NMAC
Alternative Method:  Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)				
Screen Netting Other				
☐ Monthly inspections (If netting or screening is not physically feasible)				
7.				
Signs: Subsection C of 19.15.17.11 NMAC				
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers				
☐ Signed in compliance with 19.15.16.8 NMAC				
8.				
Variances and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.				
Please check a box if one or more of the following is requested, if not leave blank:				
Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.				
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.				
9. Siting Criteria (regarding permitting): 19.15.17.10 NMAC				
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept	ptable source			
material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.				
General siting				
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.  - □ NM Office of the State Engineer - iWATERS database search; □ USGS; □ Data obtained from nearby wells	Yes No			
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.  NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No			
adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks)				
- Written confirmation or verification from the municipality; Written approval obtained from the municipality				
Within the area overlying a subsurface mine. (Does not apply to below grade tanks)  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No			
Within an unstable area. (Does not apply to below grade tanks)				
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No			
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	☐ Yes ☐ No			
Below Grade Tanks				
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured				
from the ordinary high-water mark).	☐ Yes ☐ No			
- Topographic map; Visual inspection (certification) of the proposed site				
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No			
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)				
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole,				
or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No			
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	☐ Yes ☐ No			
application.	☐ 165 ☐ NO			
<ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>				
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock				
watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.	☐ Yes ☐ No			
NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site				

Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Temporary Pit Non-low chloride drilling fluid			
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No		
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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Within 300 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Permanent Pit or Multi-Well Fluid Management Pit			
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No		
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No		
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC Previously Approved Design (attach copy of design) API Number:  or Permit Number:			
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doct attached.  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  A List of wells with approved application for permit to drill associated with the pit.  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.1 and 19.15.17.13 NMAC  Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Previously Approved Design (attach copy of design) API Number: or Permit Number:	15.17.9 NMAC		

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the	documents are		
### Author of Paragraph (1) of Subsection B of 19.15.17.9 NMAC    Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC    Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC    Climatological Factors Assessment     Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC    Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC    Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC    Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC    Quality Control/Quality Assurance Construction and Installation Plan    Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC    Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC    Nuisance or Hazardous Odors, including H₂S, Prevention Plan    Emergency Response Plan    Oil Field Waste Stream Characterization    Monitoring and Inspection Plan    Erosion Control Plan    Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC			
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.			
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well Fluid Management Pit Alternative  Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method			
14.			
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  □ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC			
15.			
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.			
Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No		
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No		
Vithin 300 feet of a wetland.  IS Fish and Wildlife Wetland Identification man: Topographic man: Visual inspection (certification) of the proposed site.			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes No		

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality  Yes \[ \] No		
	0	
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division    Yes   No		
Within an unstable area.		
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map		
Within a 100-year floodplain.  - FEMA map  Yes \( \subseteq N		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC  Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC		
17.		
Operator Application Certification:		
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.		
Name (Print): Title:		
Name (Print): Title:		
Name (Print):	-	
Signature:	-	
Signature: Date: e-mail address: Telephone:	-	
Signature:		
Signature: Date:		
Signature: Date:	- - - -	
Signature: Date:		
Signature:  c-mail address:  Telephone:  Telephone:  OCD Approval:  Permit Application (including closure plan)  Closure Plan (only)  OCD Representative Signature:  Approval Date:  OCD Permit Number:  Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report the closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this		
Signature:		

Operator Closure Certification:		
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.		
Name (Print): <u>Deborah Watson</u>	Title:	Environmental Specialist
Signature:	Date: _	January 3, 2018
e-mail address:deborah.watson@wpxenergy.com		Telephone: <u>505-333-1880</u>

## WPX Energy Production Co., LLC San Juan Basin: New Mexico Assets

Below-Grade Tank Removal Closure Report Rosa Unit #166A (API #30-039-26282) Unit Letter F, Section 30, T31N, R05W Rio Arriba County, NM

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general closure requirements of below-grade tanks (BGT) on WPX Energy Production Co, LLC (WPX) locations in the San Juan Basin of New Mexico. This is WPX's standard closure procedure for all BGTs regulated under Rule 19.15.17 NMAC and operated by WPX. For those closures which do not conform to this standard closure plan, a separate well/pit specific closure plan will be developed and utilized.

Mr. Randolph Bayliss, NMOCD, approved the WPX BGT closure plan on November 15, 2017. (See Enclosed Form C-144)

#### **Closure Notice:**

1. Prior to initiating any BGT Closure except in the case of an emergency, WPX will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or 1 week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner of record will be notified as soon as practical.

Approved Variance: If the surface owner is of public entity (i.e.: BLM) WPX Energy Production, LLC will notify by email the intent to close the BGT in place of a certified mail letter. WPX Energy Production, LLC will request a read receipt of the email which will be equal and/ or equivalent notification as certified mail.

#### WPX notified BLM-FFO, prior to BGT closure. The notification email is attached.

- 2. Notice of Closure will be given to the Aztec District office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
  - a. Operators Name (WPX)
  - b. Well Name and API Number
  - c. Location (USTR)

WPX sent notification to the District III Office via email on November 15, 2017. The notification is attached. The District III Office was advised of time and date of closure. Mr. Cory Smith, NMOCD, was in attendance during BGT closure sampling on November 20, 2017.

#### **Closure Method:**

3. All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed at an NMOCD approved facility depending on the proximity of the BGT site. Facilities may include: Rosa Unit SWD #1 (Order: SWD-916, API: 30-039-27055), Rosa Unit SWD #2 (Order: SWD-1236-0, API: 30-039-30812), Jillson Fed. SWD #001 (Order: R10168/R10168A, API: 30-039-25465), Middle Mesa SWD #001 (Order: SWD-350-0, API: 30-045-27004) and/or Basin Disposal (Permit: NM-01-0005). Solids and sludges will be shoveled and /or vacuumed out for disposal at Envirotech (Permit Number NM-01-0011) or Industrial Ecosystems Inc (Permit Number NM-01-0010B).

#### Liquids were removed prior to closure of the BGT.

4. WPX will obtain prior approval from NMOCD to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the Division. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liners materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC.

Disposal will be at a licensed disposal facility, such as San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.

#### The BGT and liner were disposed of in a division-approved manner.

5. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure will be removed from the location.

#### All associated equipment was removed from the location.

- 6. Following removal of the tank and any liner material, WPX will test the soils beneath the BGT as follows:
  - a. At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.

b.

A five-point composite sample (BGT-1) was collected from beneath the BGT following BGT removal on November 20, 2017. No obvious stained soils were observed beneath the BGT.

c. The laboratory sample shall be analyzed for the constituents listed in Table 1. Results will be reported to the Division.

The sample was submitted to Hall Environmental Analysis Laboratory, Albuquerque, NM, for analysis of benzene, BTEX, TPH, and chlorides. The analytical laboratory report is attached.

Table 1: Closure Criteria for BGTs

Components	Testing Methods(1)	Closure Limits (2) (mg/kg)	Results (mg/kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2	<0.024
BTEX	EPA SW-846 Method 8021B or 8260B	50	<0.215
Total TPH	EPA SW-846 Method 418.1	100	<18
Chlorides	EPA 300.0	250	< 30

<sup>(1)</sup> Or other test methods approved by the division

7. If the Division and/or WPX determine there is a release, WPX will comply with WPX will comply with 19.15.17.13.C.3b.

#### Sampling results indicate no release occurred from the BGT.

8. Upon completion of the tank removal, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot of top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and prevent ponding.

The BGT location was backfilled with clean soil and compacted during following BGT removal. The BGT location will be reclaimed when it is no longer needed for production operations.

<sup>(2)</sup> Numerical limits or natural background level, whichever is greater (19.15.17.13 NMAC)

9. For those portions of the former BGT area no longer required for production activities, WPX will seed the disturbed areas the first favorable growing season after the BGT is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division-approved methods. WPX will notify the Division when reclamation and re-vegetation is complete.

Reclamation of the BGT shall be considered complete when:

- a. Vegetative cover reflects a life form ratio of +/- 50% of pre-disturbance levels
- b. Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds)

OR

c. Pursuant to 19.15.17.13.H.5d WPX will comply with obligations imposed by other applicable federal or tribal agencies in which their re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

The BGT location was backfilled with clean soil and compacted during following BGT removal. The BGT location will be reclaimed when it is no longer needed for production operations.

10. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

The BGT location was backfilled with clean soil and compacted during following BGT removal. The BGT location will be reclaimed when it is no longer needed for production operations.

#### **Closure Report:**

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division Form C-144. (**Operator Closure Certification has been completed**.) The Report will include the following:

- Proof of Closure Notice (surface owner & NMOCD)
- Backfilling & Cover Installation
- Confirmation Sampling Analytical Results
- Disposal Facility Name(s) and Permit Number(s)
- Application Rate & Seeding techniques
- Photo Documentation of Reclamation

#### **Attachments:**

C-144 Closure Approval Surface Owner Notification (email) NMOCD Notification (email) Laboratory Analytical Report (#1711B41) Photograph log District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Roatt, Azrec, NM 87410
District IV
1220 S. St. Francis Dr. Santa Fe, NM 87596

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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or			
Proposed Alternative Method Permit or Closure Plan Application			
Type of action:  Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  Modification to an existing permit  Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system,			
below-grade tank, or proposed alternative method			
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request			
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.			
1.			
Operator: WILLIAMS PRODUCTION COMPANY, LLC OGRID #: 120782			
Address: PO Box 640 Aztec, NM 87410			
Facility or well name: ROSA UNIT #166A			
API Number: 3003926282 OCD Permit Number:			
Section 30F Township 31N Range 05W County RIO ARRIBA			
Latitude:36.8746 Longitude107.411 NAD:1983 Surface Owner:FEDERAL			
Pit: Subsection F or G of 19.15.17.11 NMAC			
Temporary: Drilling Workover			
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A			
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other			
☐ String-Reinforced			
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D			
3.			
☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC  Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of			
intent)			
Drying Pad Above Ground Steel Tanks Haul-off Bins Other			
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other			
Liner Seams:  Welded Factory Other			
4.			
☑ Below-grade tank:       Subsection I of 19.15.17.11 NMAC         Volume:       120         In the control of the state of			
Volume: 120 bbl Type of fluid: PRODUCED WATER  Track Construction material: FIRER CLASS TANK BY PANDED 20 mill HDDE SECOND A DV LINER			
Tank Construction material: FIBERGLASS TANK w/BANDED 20-mil HDPE SECONDARY LINER   Secondary containment with leak detection □ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off			
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other			
Liner type: Thickness mil   HDPE  PVC  Other			
5.			
Alternative Method:			
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.			

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify		
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)		
Signs: Subsection C of 19.15.17.11 NMAC  12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  Signed in compliance with 19.15.3.103 NMAC		
Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:  Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.		
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No	
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No	
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No	
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No	
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No	
Within a 100-year floodplain FEMA map		

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.    Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC   Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC   Previously Approved Design (attach copy of design)   API Number:   or Permit Number:   or Permit Number:
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  Previously Approved Design (attach copy of design) API Number:  Previously Approved Operating and Maintenance Plan API Number:  (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Subsection B of 19.15.17.9 NMAC   Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.   Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Climatological Factors Assessment   Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC   Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality Control/Quality Assurance Construction and Installation Plan   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Preeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan   Emergency Response Plan   Oil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan   Erosion Control Plan   Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative  Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.  Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Ta  Instruments: Please Indentify the facility or facilities for the disposal of liquids, drilling f	nks or Haul-off Bins Only: (19.15.17.13.D NMAC) Iuids and drill cuttings. Use attachment if more than two
facilities are required.  Disposal Facility Name: Disposa	l Facility Permit Number:
· · · · · · · · · · · · · · · · · · ·	l Facility Permit Number:
Will any of the proposed closed-loop system operations and associated activities occur on o  ☐ Yes (If yes, please provide the information below) ☐ No	•
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection I of 19.1  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of	5.17.13 NMAC
17. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure provided below. Requests regarding changes to certain siting criteria may require adminit considered an exception which must be submitted to the Santa Fe Environmental Bureau demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidal.	strative approval from the appropriate district office or may office for consideration of approval. Justifications and/or
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtaine	d from nearby wells
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtaine	d from nearby wells Yes No
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained	d from nearby wells
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant value (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	vatercourse or lakebed, sinkhole, or playa Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existe  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	nce at the time of initial application.
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in NM Office of the State Engineer - iWATERS database; Visual inspection (certificat	existence at the time of initial application.
Within incorporated municipal boundaries or within a defined municipal fresh water well field adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained	
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspect	ion (certification) of the proposed site
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Min	eral Division
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Mine Society; Topographic map	ral Resources; USGS; NM Geological Yes No
Within a 100-year floodplain FEMA map	☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Subsection Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 N Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttin Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.1 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of I	of 19.15.17.10 NMAC on F of 19.15.17.13 NMAC requirements of 19.15.17.11 NMAC ad upon the appropriate requirements of 19.15.17.11 NMAC MAC of Subsection F of 19.15.17.13 NMAC on F of 19.15.17.13 NMAC gs or in case on-site closure standards cannot be achieved) 5.17.13 NMAC 5.17.13 NMAC

19.  Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.				
Name (Print): HOLFLY C. PERKINS   Title: EH&S SPECIALIST				
Signature: Date:				
e-mail address: holly.perkins@williams.com  Telephone: 505-634-4209				
20. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)				
OCD Representative Signature:Approval Date:Approval Date:				
Title: Hydrologist OCD Permit Number: na				
21.  Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report.  The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:				
22.   Closure Method:				
23.  Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more that two facilities were utilized.				
Disposal Facility Name: Disposal Facility Permit Number:				
Disposal Facility Name: Disposal Facility Permit Number:				
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?  Yes (If yes, please demonstrate compliance to the items below) \( \subseteq \text{No} \)				
Required for impacted areas which will not be used for future service and operations:  Site Reclamation (Photo Documentation)				
Soil Backfilling and Cover Installation				
Re-vegetation Application Rates and Seeding Technique				
24. <u>Closure Report Attachment Checklist</u> : Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.				
Proof of Closure Notice (surface owner and division)				
Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits)				
Confirmation Sampling Analytical Results (if applicable)				
☐ Waste Material Sampling Analytical Results (required for on-site closure) ☐ Disposal Facility Name and Permit Number				
Soil Backfilling and Cover Installation				
Re-vegetation Application Rates and Seeding Technique				
Site Reclamation (Photo Documentation) On-site Closure Location: Latitude Longitude NAD:     NAD:   1927   1983				
25. 25. 26. 26. 26. 26. 26. 26. 26. 26. 26. 26				
Operator Closure Certification:				
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.				
Name (Print):				
		e-mail address: Telephone:		

From:

Watson, Debbie

To:

"Thomas, Leigh"; "Smith, Cory, EMNRD"; Fields, Vanessa, EMNRD

Cc:

Bradshaw, Rob

Subject: Date: BGT Closure Notification Rosa Unit #166A Wednesday, November 15, 2017 12:39:00 PM

WPX will be closing the BGT at the Rosa Unit #166A on Monday, November 20, 2017, at 9:00 AM.

Operator: WPX Energy Production, LLC

Well Name and API Number: Rosa Unit #166A (30-039-26282)

Well Head Location: N36.8731842, W107.4051056

BGT Location: N36.8746, W107.411

Surface Owner: Federal

Location: Unit Letter F, Section 30, Township 31N, Range 5W, Rio Arriba County, NM

BGT Removal and sampling: Monday, November 20, 2017 at 9:00 AM

**Note:** WPX will be closing multiple BGTs on Monday, November 20, 2017. Sampling will begin at the Rosa Unit #166A at 9:00 AM. After sampling has been completed at the Rosa Unit #166A, sampling will continue in the following order:

Rosa Unit #019B Rosa Unit #019 Rosa Unit #159A Rosa Unit #15

Please contact me with any questions.

Thank you,

Debbie

Deborah Watson
Environmental Specialist
PO Box 640 | Aztec, NM 87410
office 505.333.1880 | cell 505.386.9693 | fax 505.333.1805
deborah.watson@wpxenergy.com



If you have received this message in error, please reply to advise the sender of the error and then immediately delete this message. Thank you.

Microsoft Outlook From:

To: Smith, Cory, EMNRD; Fields, Vanessa, EMNRD

Relayed: BGT Closure Notification Rosa Unit #166A Subject: Wednesday, November 15, 2017 12:40:20 PM Date:

Attachments: BGT Closure Notification Rosa Unit #166A.msg

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server: Smith, Cory, EMNRD (Cory, Smith@state.nm.us) <mailto:Cory.Smith@state.nm.us> Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us) <mailto:Vanessa.Fields@state.nm.us> Subject: BGT Closure Notification Rosa Unit #166A

From:

Microsoft Outlook

To:

Thomas, Leigh

Subject:

Attachments:

Relayed: BGT Closure Notification Rosa Unit #166A

Date:

Wednesday, November 15, 2017 12:40:20 PM BGT Closure Notification Rosa Unit #166A.msg

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server: Thomas, Leigh (11thomas@blm.gov) < mailto:11thomas@blm.gov> Subject: BGT Closure Notification Rosa Unit #166A

Form 3160-5 (June 2015)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018

5. Lease Serial No.

SF 078764 6. If Indian, Allottee or Tribe Name

	S	UNE	DRY	NOTI	CES	AND	REP	OR	TS	NC	WE	ELLS		
Do	not	use	this	form	for	oropo	sals	to	drill	or	to	re-en	ter	an
					_	0404								

abandoned we	III. Use Form 3160-3 (A	(PD) for su	ch proposals	5.								
SUBMIT	IN TRIPLICATE - Other instr	7. If Unit of CA/Agreement, Name and/or No. Rosa Unit										
1. Type of Well												
Oil Well	Gas Well Other			8. Well Name and No. Rosa Unit #166A								
2. Name of Operator				9. API Well No.								
WPX Energy Production, LLC		lot pt at	<i>(</i> , , , , , , , , , , , , , , , , , , ,		30-039-26282	Law Farming Amon						
3a. Address PO Box 640 Aztec, NM 87410		505-333-1800	(include area cod	e)	Blanco MV	l or Exploratory Area						
4. Location of Well (Footage, Sec., 1680'FNL &790'FWL, Sec 30, T.					11. Country or Par Rio Arriba, NM	rish, State						
12. (	CHECK THE APPROPRIATE B	OX(ES) TO INI	DICATE NATURE	OF NOTION	CE, REPORT OR (	OTHER DATA						
TYPE OF SUBMISSION			TYP	E OF ACT	ION							
	Acidize	Deepen	2 2 2		uction (Start/Resume)	) □Water ShutOff						
☐ Notice of Intent	☐Alter Casing	☐Hydrauli	c Fracturing	□Recl	amation	☐Well Integrity						
M Subsequent Desert	☐ Casing Repair	☐ New Co	nstruction	Reco		⊠Other BGT Closure						
☑ Subsequent Report	☐ Change Plans	☐ Plug and			porarily Abandon							
Final Abandonment Notice	☐Convert to Injection				er Disposal							
		☐Plug Back										
A 120 bbl BGT will be clo			ontact Debor	ah Wats	on.	RECEIVED  NOV 1 5 2617  Farmington Field Office						
						Bureau of Land Management						
14. I hereby certify that the foregoing Deborah Watson	is true and correct. Name (Print	ted/Typed)	Title: Environm	ental Spe	cialist							
W. Signature Deback	Watn		Date: 11/15/17	,								
	THE SPACE	FOR FEDE	RAL OR STA	ATE OF	CE USE							
Approved by												
SuperNSu	A	sangkin dahay karangan kanangan kanangan kanangan kanangan kanangan kanangan kanangan kanangan kanangan kanang	Title &	ips	WRS	Date 11/17/19						
Conditions of approval, if any, are attentify that the applicant holds legal which would entitle the applicant to c	or equitable title to those rights in			FFO								
Title 18 U.S.C Section 1001 and Title any false, fictitious or fraudulent state				and willful	ly to make to any d	lepartment or agency of the United States						

(Instructions on page 2)



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

December 04, 2017

Debbie Watson WPX Energy 721 S Main Ave Aztec, NM 87410

TEL: (505) 333-1880

FAX

RE: Rosa Unit 166A

OrderNo.: 1711B41

#### Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/21/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

#### **Analytical Report**

#### Lab Order 1711B41

Date Reported: 12/4/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: WPX Energy** 

Project: Rosa Unit 166A

**Lab ID:** 1711B41-001

Client Sample ID: BGT-1

Collection Date: 11/20/2017 9:42:00 AM

Received Date: 11/21/2017 7:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH					Analys	t: MAB
Petroleum Hydrocarbons, TR	ND	18	mg/Kg	1	11/29/2017 11:00:00 A	M 35148
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	11/30/2017 11:55:01 P	M 35246
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/28/2017 8:16:16 PM	A 35149
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/28/2017 8:16:16 PM	A 35149
Surr: DNOP	94.9	70-130	%Rec	1	11/28/2017 8:16:16 PM	A 35149
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/27/2017 2:35:29 PM	A 35130
Surr: BFB	87.9	15-316	%Rec	1	11/27/2017 2:35:29 PM	A 35130
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	11/27/2017 2:35:29 PM	1 35130
Toluene	ND	0.048	mg/Kg	1	11/27/2017 2:35:29 PM	35130
Ethylbenzene	ND	0.048	mg/Kg	1	11/27/2017 2:35:29 PM	35130
Xylenes, Total	ND	0.095	mg/Kg	1	11/27/2017 2:35:29 PM	1 35130
Surr: 4-Bromofluorobenzene	87.3	80-120	%Rec	1	11/27/2017 2:35:29 PM	35130

Matrix: SOIL

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

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711B41

04-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 166A

Sample ID MB-35246

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 35246

1.5

RunNo: 47438

Prep Date: 11/30/2017

Analysis Date: 11/30/2017

SeqNo: 1515504

Units: mg/Kg

HighLimit

**RPDLimit** 

Qual

Analyte Chloride

Result PQL ND

Sample ID LCS-35246

SampType: Ics

TestCode: EPA Method 300.0: Anions

RunNo: 47438

Client ID: LCSS

Batch ID: 35246

SeqNo: 1515505

SPK value SPK Ref Val %REC LowLimit

Units: mg/Kg

Prep Date: 11/30/2017

Analysis Date: 11/30/2017

%RPD **RPDLimit** 

%RPD

Qual

Analyte

15.00

0

92.3

SPK value SPK Ref Val %REC LowLimit HighLimit

Chloride

1.5

**PQL** 

14

90

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 2 of 6

P Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711B41

04-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 166A

Sample ID MB-35148

SampType: MBLK

TestCode: EPA Method 418.1: TPH

LowLimit

LowLimit

80.5

Client ID:

PBS

Batch ID: 35148

PQL

RunNo: 47392

Prep Date: 11/27/2017

Analysis Date: 11/29/2017

SeqNo: 1512347

Units: mg/Kg

Analyte

%RPD **RPDLimit**  Qual

Petroleum Hydrocarbons, TR

Result ND

SPK value SPK Ref Val 20

%REC

HighLimit

SampType: LCS

PQL

20

TestCode: EPA Method 418.1: TPH

Sample ID LCS-35148

Client ID: LCSS

Batch ID: 35148

RunNo: 47392

126

Analyte

Prep Date: 11/27/2017

Analysis Date: 11/29/2017

94

91

SeqNo: 1512348

94.5

Units: mg/Kg HighLimit

Petroleum Hydrocarbons, TR

TestCode: EPA Method 418.1: TPH

%REC

%RPD **RPDLimit**  Qual

Qual

Sample ID LCSD-35148

SampType: LCSD

RunNo: 47392

126

Prep Date: 11/27/2017

Client ID: LCSS02

Batch ID: 35148

Analysis Date: 11/29/2017

100.0

SPK value SPK Ref Val

SeqNo: 1512349

Units: mg/Kg HighLimit

%RPD **RPDLimit** 

Analyte Petroleum Hydrocarbons, TR **PQL** 

SPK value SPK Ref Val %REC LowLimit 20 100.0

0

0

91.5

80.5

3.24

20

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit **PQL** Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Sample pH Not In Range
- RL Reporting Detection Limit Sample container temperature is out of limit as specified
- E Value above quantitation range
- J Analyte detected below quantitation limits
  - Page 3 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711B41

04-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 166A

Sample ID LCS-35149

SampType: LCS

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID:

LCSS

Batch ID: 35149

10

RunNo: 47353

Prep Date: 11/27/2017

Analysis Date: 11/28/2017

SeqNo: 1511452

Units: mg/Kg

Analyte Diesel Range Organics (DRO) Result PQL

**RPDLimit** 

Qual

Surr: DNOP

45 4.4 50.00 5.000

SPK value SPK Ref Val

SPK value SPK Ref Val %REC LowLimit 91.0

88.5

HighLimit 114

Sample ID MB-35149

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

%RPD

%RPD

Client ID: PBS

Surr: DNOP

Batch ID: 35149

RunNo: 47353

%REC

SeqNo: 1511453

Units: mg/Kg

HighLimit

130

**RPDLimit** Qual

Page 4 of 6

Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)

Prep Date: 11/27/2017

Result **PQL** ND 10 ND

8.9

Analysis Date: 11/28/2017

50 10.00

89.4

70

LowLimit

73.2

130

#### Qualifiers:

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

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711B41

04-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 166A

Sample ID MB-35130

SampType: MBLK

PQL

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

LowLimit

Client ID:

**PBS** 

Batch ID: 35130

RunNo: 47349

15

Units: mg/Kg

**RPDLimit** 

Qual

Analyte

Surr: BFB

Prep Date: 11/22/2017

Analysis Date: 11/27/2017

Result

SeqNo: 1510598 %REC

HighLimit

%RPD

Gasoline Range Organics (GRO) Surr: BFB

ND

5.0 1000

101

316

1000 SampType: LCS

SPK value SPK Ref Val

SPK value SPK Ref Val

TestCode: EPA Method 8015D: Gasoline Range

Sample ID LCS-35130

Client ID: LCSS

Batch ID: 35130 Analysis Date: 11/27/2017

PQL

5.0

RunNo: 47349 SeqNo: 1510600

Units: mg/Kg

%RPD

**RPDLimit** Qual

Analyte Gasoline Range Organics (GRO)

Prep Date: 11/22/2017

Result 25 1100

25.00 1000 99.6 113

%REC

0

75.9 15

HighLimit 131 316

## Qualifiers:

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

Value above quantitation range

Page 5 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711B41

04-Dec-17

Client: Project: WPX Energy

Sample ID MB-35130

Rosa Unit 166A

Client ID:

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

**PBS** 

Batch ID: 35130

RunNo: 47349

SPK value SPK Ref Val %REC LowLimit

Prep Date:

11/22/2017

Analysis Date: 11/27/2017

SeqNo: 1510626

Units: mg/Kg HighLimit

%RPD

%RPD

**RPDLimit** 

Qual

**RPDLimit** Qual

PQL Analyte Result Benzene ND 0.025 Toluene ND 0.050 Ethylbenzene ND 0.050 ND 0.10 Xylenes, Total Surr: 4-Bromofluorobenzene 1.0

Sample ID LCS-35130

Client ID: LCSS

SampType: LCS

Batch ID: 35130

TestCode: EPA Method 8021B: Volatiles

80

RunNo: 47349

100

Analysis Date: 11/27/2017

SeqNo: 1510627

Units: mg/Kg

120

Prep Date: 11/22/2017 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit 0.96 0.025 95.7 77.3 128 Benzene 1.000 0 95.4 79.2 125 0.95 0.050 1.000 Toluene 0 80.7 127 Ethylbenzene 0.94 0.050 1.000 94.4 2.9 0.10 3.000 0 95.2 81.6 129 Xylenes, Total 1.0 1.000 101 80 120 Surr: 4-Bromofluorobenzene

1.000

#### **Oualifiers:**

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

Value above quantitation range

Page 6 of 6



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: WPX ENERGY	Work Order Number: 1711B41		ReptNo: 1
Received By: Anne Thorne  Completed By: Ashley Gallegos  Reviewed By: SYLL       ZZ   7	11/21/2017 7:10:00 AM 11/21/2017 5:28:10 PM	Am Ham	
Chain of Custody			· _*
1 Custody seals intact on sample bottles?	Yes	No 🗆	Not Present ✓
2. Is Chain of Custody complete?	Yes 🗸	No 🗆	Not Present
3. How was the sample delivered?	Courier		
Log In			
4. Was an attempt made to cool the samples?	Yes ✓	No □	NA 🗆
5. Were all samples received at a temperature	of >0° C to 6.0°C Yes	No 🗆	NA 🗆
6. Sample(s) in proper container(s)?	Yes 🗸	No 🗆	
7. Sufficient sample volume for indicated test(	s)? Yes ☑	No 🗆	
8. Are samples (except VOA and ONG) proper	rly preserved? Yes	No 🗆	
9. Was preservative added to bottles?	Yes	No 🗹	NA 🗆
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials
11. Were any sample containers received broke		No 🗹	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes <b>✓</b>	No 🗆	# of preserved bottles checked for pH:  (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of	Custody? Yes	No 🗆	Adjusted?
14. Is it clear what analyses were requested?	Yes 🗹	No 🗆	
15. Were all holding times able to be met?	Yes 🗹	No 🗆	Checked by:
(If no, notify customer for authorization.)	A.		
Special Handling (if applicable)			
16. Was client notified of all discrepancies with	this order? Yes	No 🗆	NA 🗹
Person Notified:  By Whom:  Regarding:  Client Instructions:	Date Via: ☐ eMail	Phone Fax	☐ In Person
17. Additional remarks:			
18. Cooler Information Cooler No Temp °C Condition S 1 1.2 Good Ye	eal Intact   Seal No   Seal Date s	Signed By	

Chain-of-Custody Record				Turn-Around Time:				HALL ENVIRONMENTAL													
Client: WPX Energy Production, LLC				X Standard □ Rush				ANALYSIS LABORATORY													
				Project Name:				www.hallenvironmental.com													
Mailing	Address	: 721 S	Main	Rosa Unit # 166 A			4901 Hawkins NE - Albuquerque, NM 87109														
		Azt	ec, NM 87410	Project #:				Tel. 505-345-3975 Fax 505-345-4107													
Phone #: 505-333-1880				- I								-		sis	Name and Address of the Owner, where				They		
email or Fax#: deborah.watson@wpxenergy.com				Project Manager:				(Á													
QA/QC Package:				Deborah Watson				s or	0						E S			1			
X Stan	dard		☐ Level 4 (Full Validation)	Debotali Watsoli				(Ga	00						PCB						
Accredi	tation:			Sampler: DW/ RB				+ MTBE + TPH (Gas only)	8015B (MRO/GRO/DRO)	=	=				8081 Pesticides / 8082						
□ NEL		□ Other			V Yes	DI-No		+	RO/	118	50	AH	"	(e)	s/8		(A)	Ī			or
□ EDD (Type)			Sample Tem	erenne.		21)	田田	(N	B	, po	0	etal	loric	side	(A					5	
				Container	Preservative		(8021)	Σ	015E	feth	leth	¥	8	5	esti	8	Sem				ples
Date	Time	Matrix	Sample Request ID	Type and #	Туре	REALING	ВТЕХ	BTEX		TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (Chloride)	31 P	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
							ВТ	BT	TPH	무		83,	RC	Ani	808	826	827				Air
11.26.17	942	soil	B6T-1	1-4 oz glass	cold	-001	X		X	X				X							
																				$\top$	
																			$\dashv$	_	+
_										$\dashv$	_	$\dashv$							$\dashv$	+	-
_							$\vdash$				$\dashv$	-			_			-	$\dashv$	+	+-
							-					-		_	_			$\dashv$	$\dashv$	+	+
		-					_				-					_			$\dashv$	$\dashv$	_
																			_	$\dashv$	$\perp$
							_				_								$\Box$		
																1					
Date:				Received by:		Date Time	Remarks:														
11/20/11				(Christ	- Wallo	120/17 1524															
Date: Time: Relinquished by:			Received by:	0	Date Time																
Molor 7010 Christ Jacks			(1h	m Ma	6710																
TO 1	necessary,	samples sub	mitted to Half Environmental may be sub	contracted to other a	ocredited laboratori	es. This serves as notice of thi	s possi	bility.	Any su	ib-con	tracted	d data	will be	e clear	ly not	ated or	n the a	nalytic	al repo	irt.	

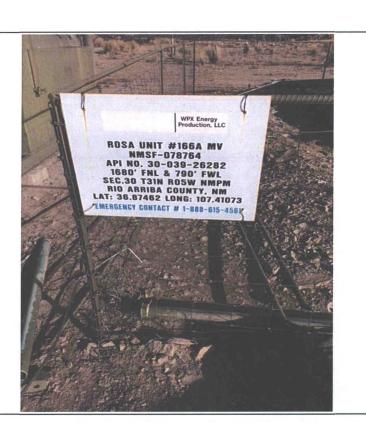
## WPX Energy Production, LLC Rosa Unit #166A BGT Closure Report Photograph Log

WPX Energy Production, LLC

Rosa Unit #166A

30-31N-05W Rio Arriba County, New Mexico

Photograph #1

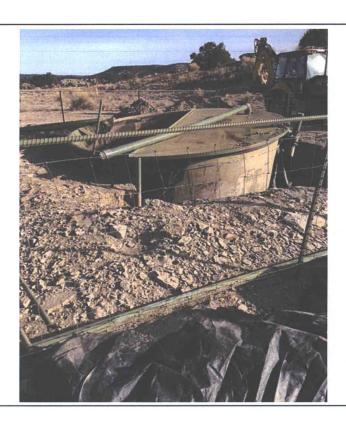


WPX Energy Production, LLC

Rosa Unit #166A

30-31N-05W Rio Arriba County, New Mexico

Photograph #2

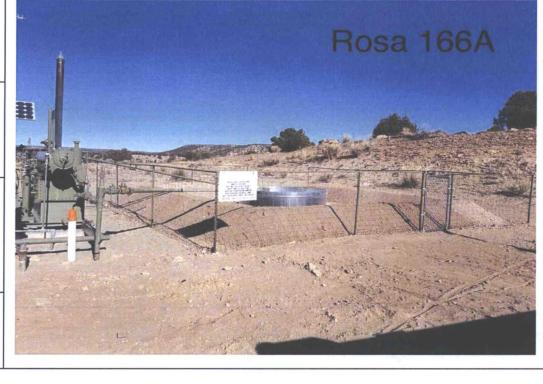


## WPX Energy Production, LLC Rosa Unit #166A BGT Closure Report Photograph Log

WPX Energy Production, LLC

Rosa Unit #166A

30-31N-05W Rio Arriba County, New Mexico



Photograph #3