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.

	Pit, Below-Grade Tank, or	OIL CONS. DIV DIST.
11210	Proposed Alternative Method Permit or Closure Plan Application	OIL OUT
16219	Type of action: Below grade tank registration	JAN 1 1 2018
	or proposed alternative method	on grade tallit,
environment. Nor	Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative that approval of this request does not relieve the operator of liability should operations result in pollution of surface water does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rule.	er, ground water or the
Operator: WP2	X Energy Production, LLC OGRID #: 120782	
	30x 640/721 S Main Aztec, NM 87410	
	name: Rosa Unit #077B	
	30-039-26926 OCD Permit Number:	
	N Section 33 Township 31N Range 5W County: Rio Arrib	
Center of Propo	sed Design: Latitude N36.85143 Longitude W107.367822 NAD83	
Surface Owner:	☑ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment	
Permanent Lined U	Drilling	
Volume: Tank Constructi Secondary of Visible side	e tank: Subsection I of 19.15.17.11 NMAC 120	
4. Alternative Submittal of an	Method: exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for cor	nsideration of approval.
Chain link, s	ight, four strands of barbed wire evenly spaced between one and four feet	school, hospital,

6. 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 19.15.16.8 NMAC			
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 acceptable 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. - \[\sum \text{NM Office of the State Engineer - iWATERS database search; } \sum \text{USGS; } \sum \text{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 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	☐ Yes ☐ No		
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) 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. (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). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		
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 application.	☐ Yes ☐ No		
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image			
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. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No		

 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 19.15.17.12 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:			
11. Multi Wall Fluid Management Dit Checklists Subsection D of 10.15.17.0 NMAC			
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 doc 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 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: 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		
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 Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, 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		
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 Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC		
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	
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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		

- J 4- J 4- ND 40 4 1070		
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 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	☐ Yes ☐ No	
	<u> </u>	
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 Waste Material Sampling Plan (if applicable) - 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		
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 beli	ief	
•	ioi.	
Name (Print): Title:		
Signature: Date:		
e-mail address:Telephone:		
e-mail address:Telephone:		
e-mail address:	. / .	
e-mail address:Telephone:	2/18	
e-mail address:	2/18	
e-mail address: Telephone: OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) Approval Date: Title: Title: Title: OCD Permit Number:	2/18	
e-mail address:	2/18 the closure report.	
e-mail address: Telephone:	the closure report.	
e-mail address: Telephone:	the closure report.	
e-mail address: Telephone:	the closure report.	
e-mail address: Telephone:	the closure report. complete this	
e-mail address: Telephone:	the closure report. complete this	
e-mail address: Telephone:	the closure report. complete this	
e-mail address: Telephone:	the closure report. complete this	

22. 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: <u>January 10, 2018</u>		
e-mail address: <u>deborah.watson@wpxenergy.com</u>	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 #077B (API #30-039-26926) Unit Letter N, Section 33, 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 USFS, 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. No representatives from NMOCD were in attendance during BGT closure and sampling on November 22, 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.

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A five-point composite sample (BGT-1) was collected from beneath the BGT following BGT removal on November 22, 2017. No obvious stained soils were observed beneath the BGT.

c. The laboratory sample shall be analyzed for the constituents listed in Table 1.

d.

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	< 0.217
Total TPH	EPA SW-846 Method 418.1	100	<20
Chlorides	EPA 300.0	250	<30

⁽¹⁾ 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.

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

⁽²⁾ Numerical limits or natural background level, whichever is greater (19.15.17.13 NMAC)

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 (#1711D30)
Photograph log

Form C-144 July 21, 2008

District 1 1625 N. French Dr., Hobbs, NM 88240
District II 1301 W. Grand Avenue, Artesia, NM 88210
District III 1000 Rio Brazos Road, Aztec, NM 87410
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

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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

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.		
Operator: WILLIAMS PRODUCTION COMPANY, LLC OGRID #: 120782		
Address: PO Box 640 Aztec, NM 87410		
Facility or well name: ROSA UNIT #077B		
API Number: OCD Permit Number:		
Section 33N Township 31N Range 05W County RIO ARRIBA		
Latitude: 36.851370000000003 Longitude 107.36796 NAD: 1983 Surface Owner: FEDERAL		
2.		
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		
☐ 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 bbl Type of fluid: PRODUCED WATER		
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		
5. Alternative Method:		

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 institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify	, hospital,
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	
9. 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 consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for
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 so material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate doffice 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 pade 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	Yes No
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 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	Yes No

1	
	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:
	12. 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)
	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 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 Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, 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
	14. 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
	 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 I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.		
Disposal Facility Name: Disposal Facility Permit Number:		
Disposal Facility Name: Disposal Facility Permit Number:		
Vill any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operation 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 H of 19 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	9.15.17.13 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 plan. 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 considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.		
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 obtained from nearby wells	☐ Yes ☑ No ☐ NA	
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 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 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinl lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	khole, or playa Yes 🛛 No	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial ap - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	pplication. Yes 🛛 No	
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domes watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of init NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site		
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	pal ordinance Yes No	
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the pro-	oposed site	
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 Society; Topographic map	Geological ☐ Yes ☒ No	
Within a 100-year floodplain FEMA map	☐ Yes 🖾 No	
18. 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 F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 9.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved) 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 G of 19.15.17.13 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):
Signature: Hally C. Farkins Date: 2/11/2009
e-mail address: holly.perkins@williams.com Telephone: 505-634-4209
20. OCD Approval: Permit Application (including closure plan) Closure Plan (only) COCD Conditions (see attachment)
OCD Representative Signature: Approval Date:15Nov17
Title: Hydrologist OCD Permit Number: na
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: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
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 than 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) 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.
Closure Report Attachment Checklist: 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: LatitudeLongitudeNAD: \[\sqrt{1927} \sqrt{1983}
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): Title:
Signature: Date:
e-mail address:

Williams Production Co., LLC San Juan Basin: New Mexico Assets

Below-Grade Tank Removal Closure Plan

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general closure requirements of below-grade tanks (BGT) on Williams 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.

Closure Conditions and Timing:

Pursuant to 19.15.17.13 (A) NMAC, WPX will initiate closure of any BGT should any one of these conditions occur:

- The Division requires closure because of imminent danger to fresh water, public health or the environment.
- The integrity of the BGT fails. Notification will be within 48 hours to the Division and closure will be schedule as specified in 19.15.17.12 (A)(5) NMAC.
- WPX chooses to take the BGT out-of-service due to operational needs. Closure under these conditions will be closed within 60 days of cessation of the BGT's operation.
- BGTs installed prior to June 16, 2008 that do not meet the requirements under 19.15.17.11.1(6) NMAC and WPX chooses not to retrofit or upgrade. Closure under these conditions will be completed within five years (by June 16, 2013).

General Plan Requirements:

- Prior to initiating any BGT Closure except in the case of an emergency, WPX will
 review County Tax Records for the current surface owner of record. The surface
 owner of record will be notified of the intent to closure the BGT by certified mail 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.
- 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)
- 3. All piping will be rerouted to an alternative produced water storage/disposal location (e.g. surface tanks, temporary frac tank, ...). The well will be temporarily shutin until the rerouting is completed.
- 4. All produced water will be removed from the BGT following discharge-pipe rerouting. Produced water will be disposed at one of the following NMOCD approved facilities depending on the proximity of the BGT site: Rosa Unit SWD #1 (Order: SWD-916, API: 30-039-27055), Rosa Unit #94 (Order: SWD-3RP-1003-0, API: 30-039-23035), 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).
- 5. Solids and sludges will be shoveled and /or vacuumed out for disposal at Envirotech (Permit Number NM-01-0011).
- 6. 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 stredded, 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 paragraph 1 subsection D of 19.15.9.712 NMAC. Disposal will be at a licensed disposal facility, presently San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.
- 7. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure will be removed from the location.
- 8. Following removal of the tank and any liner material, a five-point composite sample will be taken of the excavation and tested per 19.15.17.13(E)(4) NMAC as identified in Table 1. Grab samples will be collected from any area that is wet, discolored or showing other evidence of a release. Results will be report to the Division following receipt from the lab on Form C-141.

Table 1: Closure Criteria for BGTs

Components	Testing Methods	Closure Limits (mg/Kg					
Benzene	EPA SW-846 Method 8021B or 8260B	0.2					
BTEX	EPA SW-846 Method 8021B or 8260B	50					
TPH	EPA SW-846 Method 418.1(1)	100					
Chlorides	EPA SW-846 Method 300.1(1)	250(2)					

⁽¹⁾ Method modified for solid waste.

- 9. If the Division and/or WPX determine there is a release, WPX will comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC.
- 10. 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 recontoured to match the native grade and prevent ponding.
- 11. For those portions of the former pit area no longer required for production activities, WPX will seed the disturbed areas the first growing season after the pit is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division-approved methods. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintained that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. Note: If a surface owner agreement requires reseeding or other surface restoration that do not meet the revegetation requirements of 19.15.17.13.1 NMAC then WPX will submit the proposed alternative with written documentation that the surface owner agrees to the alternative, for Division approval.
- 12. For those portions of the former pit area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

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. The Report will include the following:

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

⁽²⁾ If background concentration of Chlorides greater than 250 mg/Kg, then higher concentration will be used for closure.

From:

Watson, Debbie

To:

Miller, Jon J -FS; Smith, Cory, EMNRD; Fields, Vanessa, EMNRD

Cc: Subject: Bradshaw, Rob; Watson, Debbie

Date:

Notification BGT Closure Rosa Unit #077B Friday, November 17, 2017 9:43:01 AM

WPX will be closing the BGT at the Rosa Unit #077B on Wednesday, November 22, 2017, see note

Operator: WPX Energy Production, LLC

Well Name and API Number: Rosa Unit #077B (30-039-26926)

Well Head Location: N36.8513184, W107.3680267

BGT Location: N36.85137, W107.36796

Surface Owner: Federal

Location: Unit Letter N, Section 33, Township 31N, Range 5W, Rio Arriba County, NM

BGT Removal and sampling: Wednesday, November 22, 2017

Note: WPX will be closing multiple BGTs on Wednesday, November 22, 2017. Sampling will begin at the Rosa Unit #026 at 9:00 AM. After sampling has been completed at the Rosa Unit #026, sampling will continue in the following order:

Rosa Unit #077B Rosa Unit #056 Rosa Unit #013 Rosa Unit #24

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.

From:

postmaster@usda.gov

To:

Watson, Debbie

Subject:

[EXTERNAL] Delivered: Notification BGT Closure Rosa Unit #077B

Date:

Friday, November 17, 2017 9:43:33 AM

Attachments:

EXTERNAL Delivered Notification BGT Closure Rosa Unit #077B.msg

CAUTION: This email was sent from an EXTERNAL source. Use caution when clicking links or opening attachments.

From:

Microsoft Outlook

To:

Smith, Cory, EMNRD; Fields, Vanessa, EMNRD

Subject: Date: Relayed: Notification BGT Closure Rosa Unit #077B Friday, November 17, 2017 9:43:04 AM

Attachments:

Notification BGT Closure Rosa Unit #077B.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: Notification BGT Closure Rosa Unit #077B



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

December 05, 2017

Debbie Watson

WPX Energy
721 S Main Ave

Aztec, NM 87410

TEL: (505) 333-1880

FAX

RE: Rosa Unit 77B WW

OrderNo.: 1711D30

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/29/2017 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1711D30

Date Reported: 12/5/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Project: Rosa Unit 77B Oliv

Lab ID: 1711D30-001

Client Sample ID: BGT-1

Collection Date: 11/22/2017 10:05:00 AM

Matrix: SOIL Received Date: 11/29/2017 7:30:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH					Analyst	MAB
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	12/4/2017 10:00:00 AM	35242
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	12/4/2017 5:00:40 PM	35287
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	12/1/2017 6:12:21 PM	35252
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/1/2017 6:12:21 PM	35252
Surr: DNOP	97.8	70-130	%Rec	1	12/1/2017 6:12:21 PM	35252
EPA METHOD 8015D: GASOLINE RANG	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/30/2017 3:00:51 PM	35218
Surr: BFB	89.6	15-316	%Rec	1	11/30/2017 3:00:51 PM	35218
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	11/30/2017 3:00:51 PM	35218
Toluene	ND	0.048	mg/Kg	1	11/30/2017 3:00:51 PM	35218
Ethylbenzene	ND	0.048	mg/Kg	1	11/30/2017 3:00:51 PM	35218
Xylenes, Total	ND	0.097	mg/Kg	1	11/30/2017 3:00:51 PM	35218
Surr: 4-Bromofluorobenzene	85.9	80-120	%Rec	1	11/30/2017 3:00:51 PM	35218

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 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1711D30

05-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 77 B Olw

Sample ID MB-35242

SampType: MBLK

TestCode: EPA Method 418.1: TPH

Client ID: PBS

Batch ID: 35242

PQL

RunNo: 47489

Prep Date: 11/30/2017

Analysis Date: 12/4/2017

SeqNo: 1516362

Units: mg/Kg

HighLimit

%RPD

RPDLimit Qual

Analyte Petroleum Hydrocarbons, TR

Sample ID LCS-35242

Client ID: LCSS

Result

ND 20

SampType: LCS

TestCode: EPA Method 418.1: TPH

Batch ID: 35242

PQL

RunNo: 47489

Analyte

Prep Date: 11/30/2017

Analysis Date: 12/4/2017

SeqNo: 1516363 %REC

Units: mg/Kg HighLimit

%RPD

Qual

Petroleum Hydrocarbons, TR

Client ID: LCSS02

Result 92

20 100.0

SPK value SPK Ref Val

91.8

TestCode: EPA Method 418.1: TPH

RPDLimit

Qual

Sample ID LCSD-35242

SampType: LCSD Batch ID: 35242

RunNo: 47489

SPK value SPK Ref Val %REC LowLimit

LowLimit

80.5

Prep Date: 11/30/2017

Analysis Date: 12/4/2017

SeqNo: 1516364

Units: mg/Kg HighLimit

126

%RPD **RPDLimit**

20

Analyte Petroleum Hydrocarbons, TR

Result

92

SPK value SPK Ref Val 20 100.0

91.8

%REC LowLimit

80.5

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н 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

Ε Value above quantitation range

J Analyte detected below quantitation limits

Page 2 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1711D30

05-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 77B Alw

Sample ID LCS-35252 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 35252 RunNo: 47457 Prep Date: 11/30/2017 Analysis Date: 12/1/2017 SeqNo: 1516027 Units: mg/Kg %REC %RPD Analyte Result **PQL** SPK value SPK Ref Val LowLimit HighLimit **RPDLimit** Qual Diesel Range Organics (DRO) 46 50.00 92.0 73.2 114 Surr: DNOP 4.4 5.000 88.1 70 130

Sample ID MB-35252	Samp	уре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID: PBS	Batcl	n ID: 35	252	F	RunNo: 4	7457									
Prep Date: 11/30/2017	Analysis Date: 12/1/2017			5	SeqNo: 1	516028	Units: mg/k								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Diesel Range Organics (DRO)	ND	10													
Motor Oil Range Organics (MRO)	ND	50													
Surr: DNOP	8.7		10.00		87.0	70	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

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 3 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1711D30

05-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 77B Alw

Sample ID MB-35218

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

15

Client ID: **PBS** Batch ID: 35218

RunNo: 47445

PQL

Prep Date: 11/29/2017 Analysis Date: 11/30/2017

Units: mg/Kg

Analyte

SeqNo: 1514415

RPDLimit Qual

SPK value SPK Ref Val 1000

%REC LowLimit

HighLimit

Gasoline Range Organics (GRO) Surr: BFB

920

92.0

316

%RPD

Sample ID LCS-35218

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range RunNo: 47445

Client ID: LCSS

Result

ND

Batch ID: 35218

5.0

Prep Date: 11/29/2017

Analysis Date: 11/30/2017

SeqNo: 1514416

Units: mg/Kg

Analyte

Result PQL

SPK value SPK Ref Val %REC LowLimit 97.6

%RPD **RPDLimit** HighLimit Qual

Gasoline Range Organics (GRO) Surr: BFB

24 950 25.00 1000

95.4

15

75.9

316

131

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

Practical Quanitative Limit POL.

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

Page 4 of 5

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1711D30

05-Dec-17

Client:

WPX Energy

Project:

Rosa Unit 77 B Du

Sample ID MB-35218	Samp	Гуре: МЕ	BLK	Tes	tCode: E									
Client ID: PBS	Batc	h ID: 35	218	F	RunNo: 4	7445								
Prep Date: 11/29/2017	Analysis [Date: 1'	1/30/2017	8	SeqNo: 1	514432	Units: mg/Kg							
Analyte	Result PQL SPK value SPK Ref Val %R		%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual						
Benzene	ND	0.025												
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10												
Surr: 4-Bromofluorobenzene	0.90		1.000		89.8	80	120							
														

Sample ID LCS-35218	Samp	ype: LC	S	ies	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 35	218	F	RunNo: 4					
Prep Date: 11/29/2017	Analysis [Date: 11	1/30/2017	5	SeqNo: 1	514433	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.5	77.3	128	•		
Toluene	0.92	0.050	1.000	0	92.1	79.2	125			
Ethylbenzene	0.92	0.050	1.000	0	92.5	80.7	127			
Xylenes, Total	nes, Total 2.8 0.10 3.000		0	93.0	81.6	129				
Surr: 4-Bromofluorobenzene	0.89		1.000		89.3	80	120			

Sample ID 1711D30-001AM	S Samp1	Type: MS	3	Tes	tCode: E	PA Method	8021B: Vola	tiles					
Client ID: BGT-1	Batcl	h ID: 35	218	RunNo: 47445									
Prep Date: 11/29/2017	Analysis D	Date: 1	1/30/2017	5	SeqNo: 1	514435	Units: mg/h	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.84	0.023	0.9141	0	92.1	80.9	132	-					
Toluene	0.85	0.046	0.9141	0	92.5	79.8	136						
Ethylbenzene	0.85	0.046	0.9141	0	93.0	79.4	140						
Xylenes, Total	2.6	0.091	2.742	0	94.3	78.5	142						
Surr: 4-Bromofluorobenzene	0.77		0.9141		84.8	80	120						

Sample ID 1711D30-001AM	I SD SampT	ype: MS	SD .	TestCode: EPA Method 8021B: Volatiles									
Client ID: BGT-1	Batch	Batch ID: 35218 RunNo: 47445											
Prep Date: 11/29/2017	/30/2017	\$	SeqNo: 1	514436	Units: mg/k	(g							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.87	0.023	0.9372	0	93.1	80.9	132	3.65	20				
Toluene	0.88	0.047	0.9372	0	93.6	79.8	136	3.77	20				
Ethylbenzene	0.88	0.047	0.9372	0	93.7	79.4	140	3.25	20				
Xylenes, Total	2.7	0.094	2.812	0	94.8	78.5	142	2.97	20				
Surr: 4-Bromofluorobenzene	0.82		0.9372		87.8	80	120	0	0				

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

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J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 5



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: 1711D30 RcptNo: 1 Received By: Sophia Campuzano 11/29/2017 7:30:00 AM Completed By: Sophia Campuzano 11/29/2017 8:27:14 AM 11/29/17 ENM Reviewed By: Chain of Custody No 🗆 Not Present ✓ Yes 1 Custody seals intact on sample bottles? No 🗌 Not Present Yes 🗸 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In Yes 🗸 No 🗌 NA 🗌 4. Was an attempt made to cool the samples? No 🗆 NA 🔲 5. Were all samples received at a temperature of >0° C to 6.0°C Yes V No Yes V 6. Sample(s) in proper container(s)? No 🗌 7. Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗌 8. Are samples (except VOA and ONG) properly preserved? No V NA \square Yes 9. Was preservative added to bottles? No VOA Vials No 🗌 10.VOA vials have zero headspace? Yes Yes No 🗸 11. Were any sample containers received broken? # of preserved bottles checked Yes 🗸 No 🗌 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 Yes 🗸 13 Are matrices correctly identified on Chain of Custody? No 🗌 14. Is it clear what analyses were requested? Yes 🗸 Yes 🗸 No 🗌 Checked by: 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes 16. Was client notified of all discrepancies with this order? No 🗔 NA 🗹 Person Notified: Date: ☐ eMail ☐ Phone ☐ Fax ☐ In Person By Whom: Regarding: - Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date 1.9 Good

	Chain-of-Custody Record			Turn-Around	Time:						IAI		E	w	TP		BI B	4 E	NT	AI	
Client	: WP	Energy	Production, LLC	X Standard	□ Rush	· .	-												TC		_
	*			Project Name		\										tal.co					-
Mailir	g Address	: 721 S	Main	Rosa Uni	t#77BQ	W		49	01 H								M 87	109			
			tec, NM 87410	Project #:																	
Phon	#: 50	5-333-18	380				Tel. 505-345-3975 Fax 505-345-4107 Analysis Request														
		leborah.v	watson@wpxenergy.com	Project Manager:				(Viu													
QA/Q	Package:			Deborah Watson				(Gas only)	RO)						PCB's						
X St	andard		☐ Level 4 (Full Validation)			*		9	0/0						2 PC						
	ditation:	_ ~.		Sampler:	S.Asomerson			TPH	/GR	£.	£.1	Î			808						Î
□ NE	D (Type)	□ Other			ja Yes	(900) (30 5(35)=(35	(+	MRC	418	504	- PA	S	ide)	es/		(OA)				ō
Date		Matrix	Sample Request ID	Container Type and #	Preservative Type	A CONTRACTOR OF THE CONTRACTOR	BTEX (8021)	BTEX + MTBE	TPH 8015B (MRO/GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (Chloride)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
11/22/11	7 1005	soil	BGT-1	1-4 oz glass	cold	-001	Х		х	X				X				\neg			
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	1																		_	+	_
Date:				Received by: Received by: Spl	wat	Date Time 1/29/17 /345 Date Time 1/29/17 0730	Ren	nark	s:												

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

WPX Energy Production, LLC Rosa Unit #077B BGT Closure Report Photograph Log

WPX Energy Production, LLC

Rosa Unit #077B

33-31N-05W Rio Arriba County, New Mexico

Photograph #1

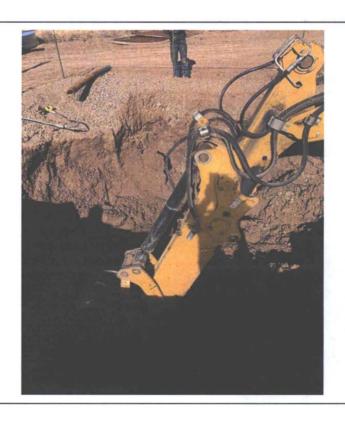


WPX Energy Production, LLC

Rosa Unit #077B

33-31N-05W Rio Arriba County, New Mexico

Photograph #2

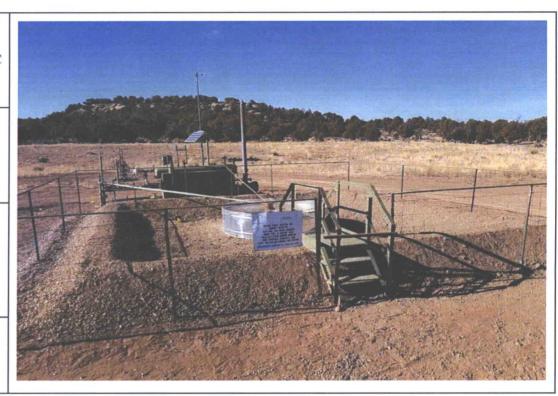


WPX Energy Production, LLC Rosa Unit #077B BGT Closure Report Photograph Log

WPX Energy Production, LLC

Rosa Unit #077B

33-31N-05W Rio Arriba County, New Mexico



Photograph #3

WPX Energy Production, LLC

Rosa Unit #077B

33-31N-05W Rio Arriba County, New Mexico

Photograph #4

