District I

1625 N. French Dr., Hobbs, NM 88240

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

State of New Mexico Energy Minerals and Natural Resources

> Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

July 21, 2008 For temporary pits, closed-loop sytems, and below-grade

Form C-144

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.

220 S. St. Francis Dr., Santa Fe, NM 87505
Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application
Type of action: X 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: ConocoPhillips Company OGRID#: 217817
Address: PO Box 4289, Farmington, NM 87499
Facility or well name: Hardie 2
API Number: OCD Permit Number:
J/L or Qtr/Qtr: D(NW/NW) Section: 28 Township 29N Range: 8W County: San Juan
Center of Proposed Design: Latitude: 36.701141 °N Longitude: 107.68701 °W NAD: X ### 1983
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC Temporary: Drilling Workover Permanent Emergency Cavitation P&A 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 X Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: X 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 X Above Ground Steel Tanks Haul-off Bins Other Lined Unlined Liner type: Thickness mil LLDPE HDPE PVD Other Liner Seams: Welded Factory Other
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: bbl Type of fluid: Tank Construction material: 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
Alternative Method: Submitted of an apportion account in account of a provided to the South Fo Fourier provided for a provided time of a provided to the South Formula Durana of the fourier provided time of a provided time
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 pit, 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				
7				
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)				
8				
Signs: Subsection C of 19.15,17.11 NMAC				
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers				
X 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 of the Santa Fe Environmental Bureau office for consi (Fencing/BGT Liner)	deration of ap	proval.		
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.				
10		-		
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	Yes	□No		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other 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.	Yes	No		
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	□NA			
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	l. <u> </u>	_		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	No		
(Applied to permanent pits) Visual inspection (contification) of the managed site: A skiel photo: Satellite image	∐NA			
 Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 500 horizonal 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. 	Yes	No		
- NM Office of the State Engineer - iWATERS database search; 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 adopted pursuant to NMSA 1978, Section 3-27-3, as amended	Yes	No		
 Written confirmation or verification from the municipality; Written approval obtained from the municipality 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	Yes	No		
Society; Topographic map Within a 100-year floodplain - FEMA map	Yes	No		

Form C-144 Oil Conservation Division Page 2 of 5

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		
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		
l 📻		
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		
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		
N Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC		
X Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC		
X 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		
Previously Approved Operating and Maintenance Plan API		
Power angular Dita Powerit Amelication Charlelists Subscation D of 10.15.17.0 NIMAC		
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 (I) 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		
Closure Plan - based upon the appropriate requirements of Subsection C of 19.13.17.19 NMAC and 19.13.17.13 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 X P&A Permanent Pit Below-grade Tank X Closed-loop System		
Alternative		
Proposed Closure Method: Waste Excavation and Removal		
X Waste Removal (Closed-loop systems only)		
On-site Closure Method (only for temporary pits and closed-loop systems)		
In-place Burial On-site Trench		
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)		
1 Worth Evenuation and Vamoval Claura Plan Charliet (10) 15 17 12 MMAC Instructions. Each of the following items and the state of the state of the following items and the state of the state of the following items and the state of the state		
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.		
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		
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		
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		
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)		

Form C-144

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Stee Instructions: Please identify the facility or facilities for the disposal of liquids, drilling				
facilities are required.	y and the transfer one transfer of the transfe			
<u> </u>	Disposal Facility Permit #: NM-01-001 / NM-01-00	10B		
	Disposal Facility Permit #: NM-01-005			
Will any of the proposed closed-loop system operations and associated activitie Yes (If yes, please provide the information No	s occur on or in areas that will not be used for future s	ervice and		
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specification - based upon the appropria	ate requirements of Subsection H of 19 15 17 13 NMA	C		
Re-vegetation Plan - based upon the appropriate requirements of Subsection	•			
Site Reclamation Plan - based upon the appropriate requirements of Sub	section G of 19.15.17.13 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 be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Instifications 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 obta	is a from positive walls	Yes No		
- NM Office of the State Engineer - TWATERS database search, USOS. Data obtain	aned from fearby wens	∐ ^{N/A} □		
Ground water is between 50 and 100 feet below the bottom of the buried waste		Yes No		
- NM Office of the State Engineer - iWATERS database search; USGS; Data obta	ned from nearby wells	∐ N/A		
Ground water is more than 100 feet below the bottom of the buried waste.		Yes No		
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtain	ned from nearby wells	∐N/A		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signific (measured from the ordinary high-water mark).	ant watercourse or lakebed, sinkhole, or playa lake	Yes No		
- Topographic map; Visual inspection (certification) of the proposed site				
Within 300 feet from a permanent residence, school, hospital, institution, or church in e - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	xistence at the time of initial application.	YesNo		
		Yes No		
Within 500 horizontal feet of a private, domestic fresh water well or spring that less that purposes, or within 1000 horizontal fee of any other fresh water well or spring, in exists - NM Office of the State Engineer - iWATERS database; Visual inspection (certific	ence at the time of the initial application.			
Within incorporated municipal boundaries or within a defined municipal fresh water we pursuant to NMSA 1978, Section 3-27-3, as amended.	Il field covered under a municipal ordinance adopted	Yes No		
 Written confirmation or verification from the municipality; Written approval obta Within 500 feet of a wetland 	ned from the municipality	∏Yes ∏No		
 US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection 	ection (certification) of the proposed site			
Within the area overlying a subsurface mine.		Yes No		
- Written confirantion or verification or map from the NM EMNRD-Mining and M	ineral Division			
Within an unstable area.		∐Yes ∐No		
 Engineering measures incorporated into the design; NM Bureau of Geology & Mi Topographic map 	neral Resources; USGS; NM Geological Society;			
Within a 100-year floodplain FEMA map		Yes No		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must bee 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 19.15.17.11 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 Subsection F 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 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 Subsec		(
Re-vegetation Plan - based upon the appropriate requirements of Subsection				
Site Reclamation 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): Dollie L. Busse Title: Staff Regulatory Technician
Signature: Date: 5/13/13
e-mail address: dollie.l.busse@conocophillips.com Telephone: 505-324-6104
OCD Approval: Permit Application (including closure plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: OCD Permit Number:
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-Inop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please identify 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 compiliane to the items below) No Required for impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Re-evegetation 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 Closure Notice (surface owner and division) 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) Disposal Facility Name de 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 1927 1983
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is ture, 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: Tclophone:

ConocoPhillips Company Closed-loop Plans

Closed-loop Design Plan

COPC's closed loop system will not entail a drying pad, temporary pit, below grade tank or sump. It will include an above ground tank suitable for holding the cuttings and fluids for rig operations. The tank will be sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

- 1. Fencing is not required for an above ground closed-loop system
- 2. It will be signed in compliance with 19.15.3.103 NMAC
- 3. A frac tank will be on location to store fresh water

Closed-loop Operating and Maintenance Plan

COPC's closed-loop tank will be operated and maintained to contain liquids and solids in order to prevent contamination of fresh water sources, in order to protect public health and the environment. To ensure the operation is maintained the following steps will be followed:

- 1. The liquids will be vacuumed out and disposed of at the Basin Disposal facility (Permit # NM-01-005) or JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B). Solids in the closed-loop tank will be vacuumed out and disposed of at Envirotech (Permit # NM-01-0011) or JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B) on a periodic basis to prevent over topping.
- 2. No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the tank. Only fluids or cutting used or generated by rig operations will be placed or stored in the tank.
- 3. The division district office will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon the discovery of the compromised tank, repairs will be enacted immediately

Closed-loop Closure Plan

The closed-loop tank will be closed in accordance with 19.15.17.13. This will be done by transporting cuttings and all remaining sludges to Envirotech (Permit # NM-01-0011) or JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B) immediately following rig operations. All remaining liquids will be transported and disposed of in the Basin Disposal facility (Permit # NM-01-005) or JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B). The tanks will be removed from the location as part of the rig move. At time of well abandonment, the site will be reclaimed and re-vegetated to pre-existing conditions when possible.