District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

**Energy Minerals and Natural Resources** Department Oil Conservation Division

1220 South St. Francis Dr. Santa Fe, NM 87505

State of New Mexico

Form C-144 July 21, 2008

For temporary pits, closed-loop sytems, 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. 1220 S. St. Francis Dr., Santa Fe, NM 87505 Pit. Closed-Loop System. Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application 1023 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: Mudge B 100 API Number: 30-045-34846 OCD Permit Number: N(SE/SW) Section: U/L or Otr/Otr: 21 Township: 11W 31N Range: County: San Juan Center of Proposed Design: Latitude: 36.88017 Longitude: 107.99706 °W NAD: X 1927 Surface Owner: State Private Tribal Trust or Indian Allotment Federal RCVD MAR 5 '13 Pit: Subsection F or G of 19.15.17.11 NMAC **DIL CONS. DIV** Drilling Workover Temporary: Permanent Emergency Cavitation ₽&A DIST. 3 LLDPE HDPE PVC Lined Thickness mil Liner type: String-Reinforced Liner Seams: Welded 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)

4 Below-grade tank: Subsect	ion I of 19.15.17.11 NMAC
Volume:	bbl Type of fluid:
Tank Construction material:	
Secondary containment with leaf	k 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

mil

Other

LLDPE HDPE

X Above Ground Steel Tanks Haul-off Bins

Factory Other

Liner type:

Thickness

Alternative Method:

Form C-144

Lined

Liner Seams:

Unlined

Welded

Oil Conservation Division

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

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6 '		
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, ins.	titution or chu	rch)
Four foot height, four strands of barbed wire evenly spaced between one and four feet		
Alternate. Please specify		
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)		
Screen Netting Other		
Monthly inspections (If netting or screening is not physically feasible)		
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		
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 of the Santa Fe Environmental Bureau office for cons	ideration of ar	proval.
(Fencing/BGT Liner)		
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	□Yes	□No
(measured from the ordinary high-water mark).		
- Topographic map; Visual inspection (certification) of the proposed site		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes	□No
application.		
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	∐NA	
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	l	<b></b>
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 (certification) of the proposed site; Aerial photo; Satellite image	∐NA	
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
NNA OCC Cabe Co F. Circa - TWA TERRO L. A. L. C L. M. C.		
- 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 man: Tanagraphic man: Visual inspection (certification) of the proposed site.	Yes	□No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within the area overlying a subsurface mine.		По
- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	<b>□</b> ,™
Within an unstable area.	Yes	No
- Engineering measures incorporated into the design; NM Burcau of Geology & Mineral Resources; USGS; NM Geological		_
Society; Topographic map Within a 100-year floodplain	Yes	∏No
- FEMA man	163	L-1''0

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
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  or Permit
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
X 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
<u> </u>
Previously Approved Operating and Maintenance Plan API
13
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
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 X P&A Permanent Pit Below-grade Tank X Closed-loop System
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)
15
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
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  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
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  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)

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16				
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground : Instructions: Please identify the facility or facilities for the disposal of liquids, dril.				
facilities are required.	Discoul Califer Daniel H. NIM 01 0011 (NIM 01 0	2100		
Disposal Facility Name: Envirotech / JFJ Landfarm / IEI	Disposal Facility Permit #: NM-01-0011 / NM-01-00	<u> </u>		
Disposal Facility Name: <u>Basin Disposal Facility</u> Will any of the proposed closed-loop system operations and <u>associated active</u>	Disposal Facility Permit #: NM-01-005  vities occur on or in areas that will not be used for future	service and		
Yes (If yes, please provide the information No				
Required for impacted areas which will not be used for future service and operation.  Soil Backfill and Cover Design Specification - based upon the appro		AC		
Re-vegetation Plan - based upon the appropriate requirements of Sub				
Site Reclamation Plan - based upon the appropraite requirements of	Subsection G of 19.15.17.13 NMAC			
17				
Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NN				
Instructions: Each siting criteria requires a demonstration of compliance in the closure pcertain siting criteria may require administrative approval from the appropriate district of				
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.		Yes No		
- NM Office of the State Engineer - iWATERS database search; USGS: Data	obtained from nearby wells	∐N/A 		
Ground water is between 50 and 100 feet below the bottom of the buried wa		Yes No		
- NM Office of the State Engineer - iWATERS database search; USGS; Data of	obtained 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 of	obtained from nearby wells	∐N/A		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sign (measured from the ordinary high-water mark).	ificant watercourse or lakebed, sinkhole, or playa lake	Yes No		
- Topographic map; Visual inspection (certification) of the proposed site				
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; satellite im</li> </ul>	• •	∐Yes ∐No		
- Visual aispection (certification) of the proposed site. Actual photo, satellite in	age	∏Yes ∏No		
Within 500 horizontal feet of a private, domestic fresh water well or spring that less	· · · · · · · · · · · · · · · · · · ·			
<ul> <li>purposes, or within 1000 horizontal fee of any other fresh water well or spring, in ex</li> <li>NM Office of the State Engineer - iWATERS database; Visual inspection (cer</li> </ul>				
Within incorporated municipal boundaries or within a defined municipal fresh water	Yes No			
<ul> <li>pursuant to NMSA 1978, Section 3-27-3, as amended.</li> <li>Written confirmation or verification from the municipality; Written approval of</li> </ul>	obtained from the municipality			
Within 500 feet of a wetland	,	Yes No		
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site				
Within the area overlying a subsurface mine.	d Mineral Division	∐Yes ∐No		
- Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division  Within an unstable area.		□Yes □No		
- 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		YesNo		
18				
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Eaby a check mark in the box, that the documents are attached.	ach of the following items must bee attached to the close	ure plan. Please indicate,		
Siting Criteria Compliance Demonstrations - based upon the appropri	riate requirements of 19.15.17.10 NMAC			
Proof of Surface Owner Notice - based upon the appropriate require	ments of Subsection F of 19.15.17.13 NMAC			
Construction/Design Plan of Burial Trench (if applicable) based upo	n the appropriate requirements of 19.15.17.11 NMAC			
Construction/Design Plan of Temporary Pit (for in place burial of a c		19.15.17.11 NMAC		
Protocols and Procedures - based upon the appropriate requirements		,		
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirem		,		
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 Sub				
Site Reclamation Plan - based upon the appropriate requirements of				

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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/Z. Busse Title: Staff Regulatory Technician
Signature: Date: 3/4/13
e-mail address: dollie.l.busse@conocophillips.com Telephone: 505-324-6104
20 OCD Approval: Permit Application (including closufe plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature:
Title: OMPLANCE DETTEL 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:
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.
23
Closure Report Regarding Waste Removal Closure For Closed-loop 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 complilane to the items below)
Required for impacted areas which will not be used for future service and operations:
Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
24 <u>Closure Report Attachment Checklist:</u> Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.
Proof of Closure Notice (surface owner and division)
Proof of Deed Notice (required for on-site closure)
Plot Plan (for on-site closures and temporary pits)
Confirmation Sampling Analytical Results (if applicable)
Waste Material Sampling Analytical Results (if applicable)
Disposal Facility Name and Permit Number
Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique
Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude: Longitude: NAD 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: Telephone:

# 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.