# District I 1625 N. French Dr., Hobbs, NM 88240 1301 W. Grand Ave., Artesia, NM 88210

District III

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 tanks, submit to the appropriate NMOCD District Office.

Form C-144

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

District IV 1220 S St Francis Dr , Santa Fe, NM 87505

1000 Rio Brazos Rd., Aztec, NM 87410

### 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 hability 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
perator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538
ddress: PO Box 4289, Farmington, NM 87499
acility or well name: Lodewick #9
PI Number: 30-045-06422 OCD Permit Number:
/L or Qtr/Qtr: C(NENW) Section: 19 Township: 27N Range: 9W County: San Juan
enter of Proposed Design: Latitude: 36.56500' N Longitude: 107.8321800' W NAD: X 1927 1983
urface 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 X 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
Relow-grade tank: Subsection I of 19.15.17.11 NMAC   Volume:
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: Thicknessmil HDPE PVC Other

**Alternative Method:** 

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

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent 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				
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  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 consideration of approval  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.				
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.				
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	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.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)	Yes	No		
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image				
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applied to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes NA	No		
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  - 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		

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
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
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
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 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)
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
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15 17.13 NMAC
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

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16 Waste Removal Closure For Closed-loop Systems That U	Itilize Above Ground Steel Tanks or Haul-off Rins Only	(19 15 17 13 D NMAC)			
Instructions: Please identify the facility or facilities for the care required.					
Disposal Facility Name: Envirotech	Disposal Facility Permit #	NM-01-0011			
Disposal Facility Name Basin Disposal Facility	Disposal Facility Permit #:	NM-01-005			
Will any of the proposed closed-loop system operation: Yes (If yes, please provide the information	and associated activities occur on or in areas that will.  No	not be used for future service and opera	ntions?		
Required for impacted areas which will not be used for future service and operations  Soil Backfill and Cover Design Specification - 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					
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. 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 NM Office of the State Engineer - iWATERS database		Yes N/A	No		
Č	•				
Ground water is between 50 and 100 feet below the bo - NM Office of the State Engineer - tWATERS database		Yes N/A	∐No		
Ground water is more than 100 feet below the bottom of	•	☐Yes	□No		
- NM Office of the State Engineer - iWATERS database		□N/A			
Within 300 feet of a continuously flowing watercourse, or 20 (measured from the ordinary high-water mark).	00 feet of any other significant watercourse or lakebed, sink	hole, or playa lake Yes	No		
- Topographic map; Visual inspection (certification) of	the proposed site		\		
Within 300 feet from a permanent residence, school, hospita - Visual inspection (certification) of the proposed site; A	••	olication. Yes	∐No		
		Yes	No		
Within 500 horizontal feet of a private, domestic fresh water purposes, or within 1000 horizontal fee of any other fresh w - NM Office of the State Engineer - iWATERS database	ater well or spring, in existence at the time of the initial app	ě l			
Within incorporated municipal boundaries or within a define pursuant to NMSA 1978, Section 3-27-3, as amended.	·	al ordinance adopted Yes	No		
Written confirmation or verification from the municip Within 500 feet of a wetland  US Fish and Wildlife Wetland Identification man: Tor	ographic map; Visual inspection (certification) of the proper	Yes	□No		
Within the area overlying a subsurface mine	ographic map, viscus impression (continuation) of the proper	Yes	∏No		
- Written confiramtion or verification or map from the N	M EMNRD-Mining and Mineral Division				
	И Bureau of Geology & Mineral Resources; USGS, NM Ge	ological Society,	∐No		
Topographic map Within a 100-year floodplain FEMA map		Yes	No		
On-Site Closure Plan Checklist: (19.15.17.13 NMA by a check mark in the box, that the documents are a		ee attached to the closure plan. Please	indicate,		
Siting Criteria Compliance Demonstrations - ba	sed upon the appropriate requirements of 19.15.17 10	NMAC			
Proof of Surface Owner Notice - based upon the	e appropriate requirements of Subsection F of 19.15.17	7.13 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 10 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					
<b>—</b>	requirements of Subsection I of 19 15 17.13 NMAC				
Site Reclamation Plan - based upon the appropr	iate requirements of Subsection G of 19.15 17 13 NM.	AC			

Form C-144 Oil Conservation Division

19 Onerator Application Cartification:	Ì
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): _ Crystal Tafoya Title Regulatory Technician	
Signature: Date: 8/27/08	
e-mail address: crystal.tafoya@conocophillige.com Telephone: 505-326-9837	
20	Ì
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)	
OCD Representative Signature: 3-22-08	
Title: 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:	
Cosure 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.	
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 compliane to the items below)	}
Required for impacted areas which will not be used for future service and operations  Site Reclamation (Photo Documentation)	l
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)	j
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	
25 0. (C) (C) (C) (C) (C)	
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 the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.	at
Name (Print) Title	
Signature. Date	
e-mail address Telephone:	

# Burlington Resources Oil & Gas Company, LP Closed-loop Plans

### Closed-loop Design Plan

BR'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**

BR'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). Solids in the closed-loop tank will be vacuumed out and disposed of at Envirotech (Permit # NM-01-0011) 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
- 4. All of the above operations will be inspected and a log will be signed and dated. During rig operations the inspection will be daily.

### **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) immediately following rig operations. All remaining liquids will be transported and disposed of in the Basin Disposal facility (Permit # NM-01-005). 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.