#### 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

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

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

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# 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 operation environment. Nor does approval relieve the operator of its responsibility to comply with any other application.   | able governmental authority's rules, regulations or ordinances.              |
|---|--|
| Operator: Burlington Resources Oil & Gas Company, LP  | OGRID#: 14538 RCVD MAY 19'09 OIL CONS. DIV.                                  |
| Address: PO Box 4289, Farmington, NM 87499  |  |
| Facility or well name: San Juan 28-5 Unit 72  | DIST. 3  |
| API Number: 30-039-20028 OCD Permit Num   | nber:  |
| U/L or Qtr/Qtr: N(SESW) Section: 35 Township: 28N Range:  | 5W County: Rio Arriba  |
| Center of Proposed Design: Latitude: 36.614050'N Longitude:   | <b>107.332417'W</b> NAD: <b>X</b> 1927 1983                                  |
| Surface Owner: X Federal State Private Tribal Trust or Inc  | dian 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  String-Reinforced  Liner Seams: Welded Factory Other Volume:  | HDPE PVC Other bbl Dimensions L x W x D                                      |
| X Closed-loop System: Subsection H of 19.15.17.11 NMAC  Type of Operation: P&A Drilling a new well X Workover or Drilling (Applie notice of intent)  Drying Pad X Above Ground Steel Tanks Haul-off Bins Other  Lined Unlined Liner type: Thickness mil LLDPE  Liner Seams: Welded Factory Other    | es to activities which require prior approval of a permit or  HDPE PVD 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 Visible sidewalls and liner Visible sidewalls only Other  Liner Type: Thickness mil HDPE PVC Other | automatic overflow shut-off  |
| Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Env   | vironmental 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  |                 |       |
| 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 considerations of the santa Fe Environmental Bureau office for considerations.  | deration of app | roval |
| 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.  | 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  |                 |       |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applied to permanent pits)  | Yes             | No    |
| - 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    |
| <ul> <li>Written confirmation or verification from the municipality. Written approval obtained from the municipality</li> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>   | 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    |

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| 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 |  |  |
| String 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  |  |  |
| 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 (1) of Subsection B of 19.15.17.9 NMAC  |  |  |
| Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   |  |  |
| Climatological Factors Assessment   |  |  |
| Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  |  |  |
| Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC  |  |  |
| Leak Detection Design - based upon the appropriate requirements of 19 15.17.11 NMAC   |  |  |
| Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC   |  |  |
| Quality Control/Quality Assurance Construction and Installation Plan  |  |  |
| Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17 12 NMAC  Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   |  |  |
| Nuisance or Hazardous Odors, including H2S, Prevention Plan   |  |  |
| Emergency Response Plan   |  |  |
| Oil Field Waste Stream Characterization   |  |  |
| Monitoring and Inspection Plan  |  |  |
| Erosion Control Plan  |  |  |
| Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  |  |  |
| 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 X 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)  |  |  |
| 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   |  |  |

| 16  Waste Removal Closure For Closed-loop Systems That Utilize Above Ground S  |   |                             |  |
|--|---|-----------------------------|--|
| Instructions: Please identify the facility or facilities for the disposal of liquids, drilli-<br>facilities are required   | ng fluids and drill cuttings. Use attachment if more than two   |                             |  |
| 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 operations and associated acti Yes (If yes, please provide the information No  | vities occur on or in areas that will nbe used for future   | service and                 |  |
| Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subs  | opriate requirements of Subsection H of 19.15.17.13 N   | MAC                         |  |
| Site Reclamation Plan - based upon the appropriate requirements of S   |   |                             |  |
|  |   |                             |  |
| Siting Criteria (Regarding on-site closure methods only: 19 15 17 10 NM. Instructions Each siting criteria requires a demonstration of compliance in the closure plan certain siting criteria may require administrative approval from the appropriate district office office for consideration of approval Justifications and/or demonstrations of equivalency are re-                            | Recommendations of acceptable source material are provided below<br>or may be considered an exception which must be submitted to the So |                             |  |
| 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 of   | btained from nearby wells   | ∐N/A                        |  |
| Ground water is between 50 and 100 feet below the bottom of the buried w   |   | Yes No                      |  |
| - NM Office of the State Engineer - tWATERS database search; USGS, Data of   | otained 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   | otained 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).  Topographia many Visual inspection (contification) of the proposed site.   | ificant watercourse or lakebed, sınkhole, or playa lake   | Yes No                      |  |
| <ul> <li>Topographic map; Visual inspection (certification) of the proposed site</li> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church</li> </ul>  | in avietance at the time of initial application   | ∏Yes ∏No                    |  |
| - Visual inspection (certification) of the proposed site, Aerial photo, satellite im-  | 2.  |                             |  |
| 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 fee 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; Visual inspection (certification) of the proposed site |   |                             |  |
| Within incorporated municipal boundaries or within a defined municipal fresh water vipursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality, Written approval of   | ·   | Yes No                      |  |
| Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visual in   |   | Yes No                      |  |
| Within the area overlying a subsurface mine.   |   | Yes No                      |  |
| - Written confirmation or verification or map from the NM EMNRD-Mining and   | Mineral Division  |                             |  |
| 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                      |  |
| On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Early a check mark in the box, that the documents are attached.   | ch of the following items must bee attached to the clos   | sure plan. Please indicate, |  |
| Siting Criteria Compliance Demonstrations - based upon the approp  | riate 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   | 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   |   |                             |  |
| 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 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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| 19  |  |  |
|---|--|--|
| Operator Application Certification:   |  |  |
| I hereby certify that the information submitted with this application is true, acci   | •  |  |
| Name (Print): Kelly Jeffery   | Title:   | Regulatory Technician  |
| Signature.  | Date:  | 5/1/2009   |
| e-mail address:   | Telephone:   | 505-599-4025   |
|   |  |  |
| 20 OCD Approval: Permit Application (including closure plan)  | Closure Plan (only)  | OCD Conditions (see attachment)  |
|   |  |  |
| OCD Representative Signature:   |  | Approval Date:   |
| Title: Enviro & pec   | OCD Perm   | it Number:   |
|   |  |  |
| 21  |  |  |
| Closure Report (required within 60 days of closure completion): So  |  |  |
| Instructions: Operators are required to obtain an approved closure plan prior<br>report is required to be submitted to the division within 60 days of the completi  |  | •  |
| approved closure plan has been obtained and the closure activities have been of   |  | rease to not complete and section of the form with the                 |
|   | . Closure  | Completion Date:   |
| · · · · · · · · · · · · · · · · · · ·   |  |  |
| 22 Closure Method:  |  |  |
| Waste Excavation and Removal On-site Closure Method   | Alternative Closure I  | Method Waste Removal (Closed-loop systems only)                        |
| If different from approved plan, please explain.  |  | waste removal (closes toop systems smy)                                |
| in directin from approved plant, prease explain.  |  |  |
|   | MONEY REALITY OF THE STATE OF T | 100 IT LOUB LOUB LOUB LOUB   |
| Closure Report Regarding Waste Removal Closure For Closed-loop System<br>Instructions: Please identify the facility or facilities for where the liquids, driven<br>Application of the control |  |  |
| 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 opeartions?                             |
| Yes (If yes, please demonstrate compliane to the items below)   | No   |  |
| Required for impacted areas which will not be used for future service and o   | pperations:  |  |
| Site Reclamation (Photo Documentation)  |  |  |
| Soil Backfilling and Cover Installation   |  |  |
| Re-vegetation Application Rates and Seeding Technique   |  |  |
| Cleaning Deport Attachment Checklists Laturations Foot 6th 6  |  | had to the alcourse several. Planes indicate his a cheat mouth in      |
| Closure Report Attachment Checklist: Instructions: Each of the fo<br>the box, that the documents are attached.  | niowing items must be aπac   | nea to the closure report. Pleuse indicate, by a check mark in         |
| 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  |
|   |  |  |
| 25  |  |  |
| Operator Closure Certification:   |  |  |
| I hereby certify that the information and attachments submitted with this closur  | re report is ture, accurate an   | d complete to the best of my knowledge and belief. I also certify that |
| the closure complies with all applicable closure requirements and conditions s  |  |  |
| Name (Print):   | Title:   |  |
|   |  |  |
| Signature:  | Date:  |  |
| e-mail address:   | Telephone:   |  |

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# 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

#### **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.