## JAN 13 2010

Form 3160-3 (April 2004) FORM APPROVED Bureau of Land Management OMB No. 1004-0137 Expires March 31, 2007 Farmington Field Office UNITED STATES Lease Serial No. DEPARTMENT OF THE INTERIOR NO-G-0912-1761 BUREAU OF LAND MANAGEMENT If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER NAVAJO ALLOTMENT 261494 7 If Unit or CA Agreement, Name and No. DRILL REENTER la. Type of work: N/A Lease Name and Well No. Oil Well Gas Well ✓ Single Zone Multiple Zone Type of Well: **BLACKIE 25 #4** 9. API Well No. Name of Operator ROSETTA RESOURCES OPERATING LP 30-045-35091 3b. Phone No. (include area code) 3a. Address 717 TEXAS AVE., SUITE 2800 10. Field and Pool, or Exploratory (713) 335-4104 **2526** HOUSTON, TX 77002 BASIN FRUITLAND COAL GAS 11 Sec., T. R. M or Blk. and Survey or Area Location of Well (Report location clearly and in accordance with any State red 1605' FSL & 1175' FEL At surface 1920 25-24N-11W NMPM At proposed prod. zone SAME 8 12. County or Parish 13 State Distance in miles and direction from nearest town or post office\* 13 AIR MILES WNW OF NAGEEZI, NM SAN JUAN NM OIL COMO DIV DIO of acres in lease Spacing Unit dedicated to this well Distance from proposed\* 16. No 15. location to nearest 2, 61 5 TITUT & property or lease line, ft 1035 160 **É2 (= 320 acres)** (Also to nearest drig. unit line, if any) 19. Proposed Depth 20. BLM/BIA Bond No. on file Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. N/A 1,150 **BIA NATIONWIDE RLB0011613** Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 6,466' GI 03/31/2010 2 WEEKS action is subject to technical and DRILLING OPERATIONS AUTHORIZED ARE procedural review pursuant to 43 CFR 3165.3 24. Attachments and appeal nursuant to 43 CFR 3165.3

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached @#bi€#http:REQUIREMENTS\*. SUBJECT TO COMPLIANCE WITH ATTACHED 1. Well plat certified by a registered surveyor Bond to cover the operations unless covered by an existing bond on file (see: Item 20 above). 2 A Drilling Plan. 3 A Surface Use Plan (If the location is on National Forest System Lands, the Operator certification SUPO shall be filed with the appropriate Forest Service Office). Such other site specific information and/or plans as may be required by the authorized officer. 25. Signature Name (Printed/Typed) **BRIAN WOOD** 12/17/2009 Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682 Approved by (Signature Name (Printed/Typed) Date

Application approval these not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United

Office

\*(Instructions on page 2)

Title

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States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

. New Mexic

Energy, Minerals of Natural Resources Decarations

Revisea Uctober 12, 2005 Instructions on back

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District II

OIL CONSERVATION DIVISION 1220 South St Francis Dr. Santa Fe, NM 87505

AMENDED REPORT

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

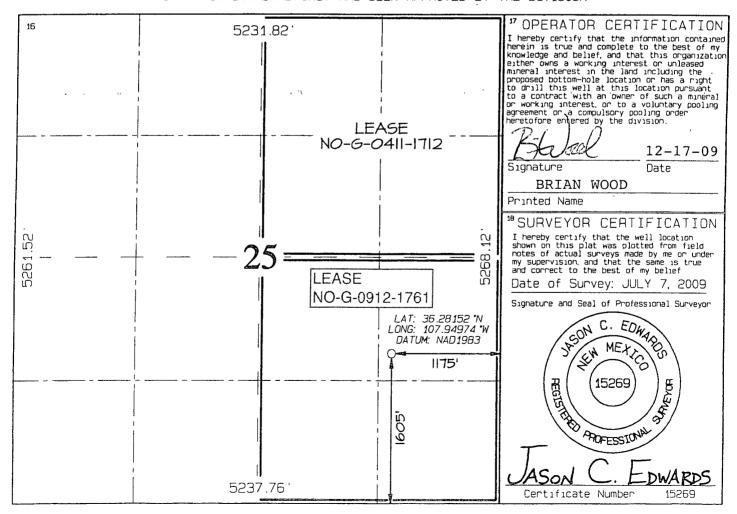
### WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number	Pool Code	³Pool Name		
30-045-3509	-045-3509   71629 BASIN FRUITLAND CC			
*Property Code	°Pr	operty Name	⁵Well Number	
38090	BL	4		
'OGRID No.	* Op	erator Name	°Elevation	
239235	ROSETTA RESO	6466		
	10 Sup f	oso Losatiano		

<sup>10</sup> Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	25	24N	11W	-	1605	SOUTH	1175	EAST	SAN JUAN
<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lat no	Sect ion	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dad out of Appea					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	15 Order No		
320.0 Acres - (E/2)		_ 201UE OF TULITI	Consolidation Code	- Urder No					
			C						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Rosetta Resources Operating LP Blackie 25 #4 1605' FSL & 1175' FEL Sec. 25, T. 24 N., R. 11 W. San Juan County, New Mexico

## **Drilling Program**

### 1. ESTIMATED FORMATION TOPS

<u>Formation</u>	GL Depth	KB Depth	<u>Elevation</u>
Nacimiento	0'	5'	+6,466'
Ojo Alamo	36'	41'	+6,430'
Kirtland	111'	116'	+6,355'
Fruitland Coal	686'	691'	+5,780'
Pictured Cliffs	941'	946'	+5,525'
Total Depth (TD)	1,150'	1,155'	+5,316'

## 2. NOTABLE ZONES

Oil & Gas Zones	<u>Water Zones</u>	i.	 Coal Zone
Fruitland	Nacimiento		Fruitland
Pictured Cliffs	Ojo Alamo		

Water zones will be protected with casing, cement, and fresh water weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

## 3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) BOP and choke manifold system will be installed and tested to  $\approx 500$  psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for



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use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to check mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

## 4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Depth Set</u>
8-3/4"	7"	23#	J-55	ST&C	New	120'
6-1/4"	4-1/2"	10.5#	J-55	LSST&C	New	1,150'

Surface casing will be cemented to the surface with  $\approx 35$  cubic feet ( $\approx 30$  sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl<sub>2</sub>. Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Will use API casing dope.

Production casing will be cemented to the surface with  $\approx 206$  cubic feet ( $\approx 175$  sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl<sub>2</sub>. Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Three or more centralizers will be used. Volume = 75% excess.

## 5. <u>MUD PROGRAM</u>

A nine pound polymer and fresh water mud system with a viscosity of  $\approx 35$  will be used. Sufficient material to maintain mud qualities, control lost circulation, and contain a blowout will be available at the well while drilling.



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## 6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR log may be run from TD to surface. CNL/FSC log may be run over certain intervals.

## 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be  $\leq$ 460 psi.

## 8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take  $\approx 10$  days to drill and complete the well.



Chihuahua Rig #201 BOP Testing Procedure.

Refer to the attached diagram for the bradenhead and BOP configuration. No mud cross will be utilized. The choke manifold will be connected to one side of the bradenhead. Connect the third-party testing company's test truck to the opposite side of the bradenhead.

### Kill Line Valve:

Connect the test truck to the kill line valve and pressure test the valve to 250 psig low and 1,000 psig high. Test each pressure for 10 minutes.

### Blind Rams:

Close the blind rams and open the bradenhead valve to the choke manifold. Have all three of the choke manifold valves closed. Pressure test the blind rams, casing, bradenhead, and choke manifold to 250 psig low and 1,000 psig high. Test each pressure for 30 minutes. A successful test will not have more than a 10% drop during the 30 minute test period.

If the test is successful proceed with the pipe ram test.

If the test is not successful, open the blind rams and install the test plug at the bottom of the bradenhead (the test plug seal is below the two valves on the bradenhead). Close the bradenhead valve to the choke manifold. Pressure test the blind rams and bradenhead to 250 psig low and 1,000 psig high. Open the bradenhead valve to the choke manifold and repeat the test. If theses test fail with no obvious leaks at either the blind rams or the choke manifold, remove the test plug and run a 7" packer into the first joint of casing and repeat both tests. Use caution when pulling the test plug if pressure is trapped below the plug. Recommend closing the pipe rams and opening the bradenhead valve to the choke manifold before trying to pull the test plug

### Pipe Rams:

Install the TIW valve on the bottom of one joint of drill pipe. Run the one joint into the well and close the pipe rams. Chain down the joint of drill pipe but leave the top of the pipe open. With the bradenhead valve open and the test truck still connected to the other side of the bradenhead, test the pipe rams to 250 psig low and 1,000 psig high. Hold each pressure for 30 min with no more than a 10% drop during the test period.

### Upper Kelly Cock:

Install the TTW valve to the bottom of the Kelly. Install the test truck to the TTW Valve. With the TTW valve closed, pressure test the TTW valve to 250 psig low and 1,000 psig high for 10 minutes. Open and the TTW valve and close the upper Kelly cock. Pressure test the Kelly and upper Kelly cock to 250 psig low and 1,000 psig high. Hold each pressure for 10 minutes with 0% drop during the test.

# "2M" BLOWOUT PREVENTER SYSTEM

