

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			5. Lease Serial No. NMSF-078329
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator RICHARDSON OPERATING COMPANY			7. If Unit or CA Agreement, Name and No. N/A
3a. Address 3100 LaPLATA HIGHWAY FARMINGTON, NM 87401		3b. Phone No. (include area code) (505) 564-3100	8. Lease Name and Well No. FEDERAL 31-32 #3
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1658' FSL & 812' FEL At proposed prod. zone SAME			9. API Well No. 30-045- 31833
14. Distance in miles and direction from nearest town or post office* 7 AIR MILES S OF BLANCO			10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 812'		16. No. of Acres in lease 662.86	11. Sec., T., R., M., or Blk. and Survey or Area I 32-28n-9w NMPM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 133'		17. Spacing Unit dedicated to this well S2 (342.86 ACRES)	12. County or Parish SAN JUAN
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,882' GL		19. Proposed Depth 3,070'	13. State NM
22. Approximate date work will start* UPON APPROVAL		20. BLM/BIA Bond No. on file #158293308 (BLM - NATIONWIDE)	
23. Estimated duration 2 WEEKS			
24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

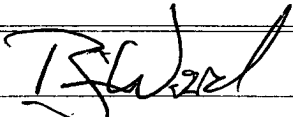

Comments

Archaeology report: LAC 2003-37b

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".RECEIVED
2003 AUG -7 AM 11:04
070 Farmington, NM

cc:BLM (& OCD), ConocoPhillips, Richardson

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 8-5-03
Title CONSULTANT	PHONE: 505 466-8120 FAX: 505 466-9682	
Approved by (Signature)  David J. Markiewicz	Name (Printed/Typed)	Date NOV 14 2003
Title	Office	

Application approval does not warrant or certify 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 States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOC

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-065-31833	Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code 9641	Property Name FEDERAL 31-32	Well Number 3
OGRD No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 6882'

Surface Location

UL or Lot	Sec.	Twp.	Rge.	Lot Lth.	Feet from >	North/South	Feet from >	East/West	County
1	32	28 N.	9 W.		1658	SOUTH	812'	EAST	SAN JUAN

Bottom Hole Location If Different From Surface

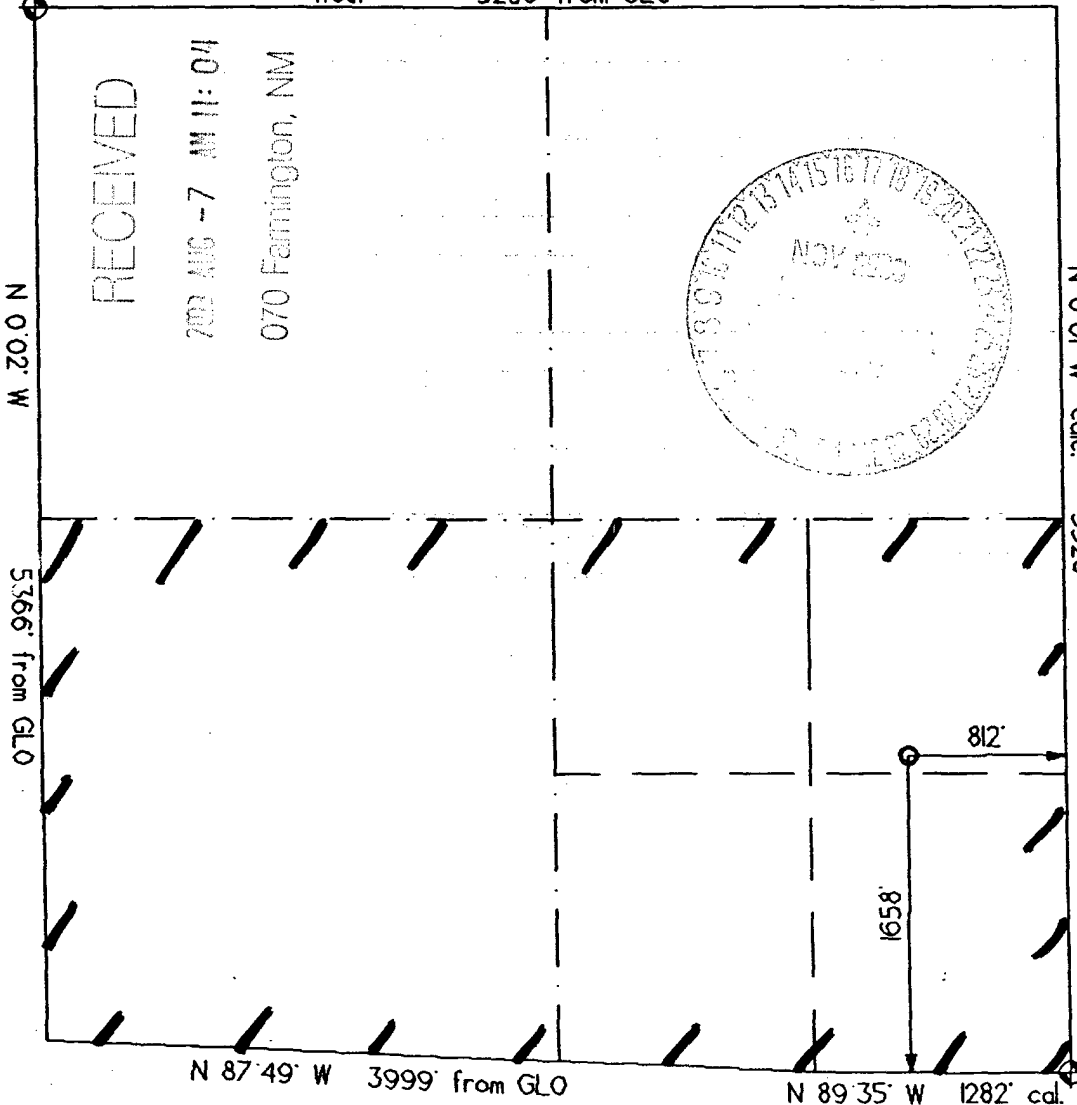
UL or Lot	Sec.	Twp.	Rge.	Lot Lth.	Feet from >	North/South	Feet from >	East/West	County

Dedication	Joint ?	Consolidation	Order No.

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

West 5280' from GLO

OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name **BRIAN WOOD**

Title **CONSULTANT**

Date **AUG. 5, 2003**

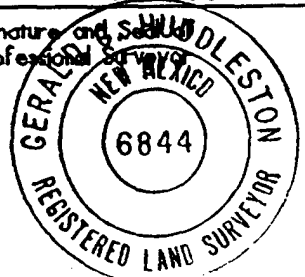
SURVEYOR CERTIFICATION

I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

7/15/03

Signature and Seal
Professional Surveyor



Richardson Operating Company
Federal 34-32 #3
1658' FSL & 812' FEL
Sec. 32, T. 28 N., R. 9 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	000'	5'	+6,882'
Nacimiento	500'	505'	+6,382'
Kirtland Shale	2,092'	2,097'	+4,790'
Fruitland Coal	2,682'	2,687'	+4,200'
Pictured Cliffs Ss	2,967'	2,972'	+3,915'
Total Depth (TD)*	3,070'	3,075'	+3,812'

* all elevations reflect the ungraded ground level of 6,882'

2. NOTABLE ZONES

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland Coal	Fruitland Coal	Fruitland Coal
Pictured Cliffs		

Water zones will be protected with casing, cement, and 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.) Double ram or annular system with a rotating head will be used. All ram preventers and related equipment will be hydraulically tested at nipple up and after any use under pressure to 1,000 psi.

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Blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi. Maximum expected pressure is $\leq 1,230$ psi.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>GL Setting Depth</u>
8-3/4"	7"	20	K-55	New	250'
6-1/4"	4-1/2"	10.5	K-55	New	3,070'

Surface casing will be cemented to surface with ≈ 100 cubic feet (≈ 85 sacks) Class B + 2% CaCl_2 . Volume is based on $>100\%$ excess, yield of 1.18 cubic feet per sack, and slurry weight of 15.6 pounds per gallon. W. O. C. = 12 hours. Pressure test surface casing to 600 psi for 30 minutes.

Production casing hole will first be cleaned of rock chips by circulating at least 150% of hole volume with mud to the surface. Thirty barrels of fresh water will next be circulated. Lead with ≈ 420 cubic feet (≈ 204 sacks) of Class B with 2% metasilicate (yield = 2.06 cubic feet per sack, slurry weight = 12.5 pounds per gallon). Tail with ≈ 210 cubic feet (≈ 178 sacks) of Class B with 2% CaCl_2 (yield = 1.18 cubic feet per sack, slurry weight = 15.6 pounds per gallon). Total cement volume is ≈ 630 cubic feet based on $>100\%$ excess and circulating to surface.

Production casing will have 4-1/2" cement guide shoe and self fill float collar. Float will be placed one joint above the shoe. Eight centralizers will be spaced on every other joint starting above the shoe. Eight turbolizers will be placed on every other joint starting from the top of the well.