

RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

5. Lease Serial No.	NMSF-078110
6. If Indian, Allottee or Tribe Name	N/A
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No.	Ropco 10 #3
9. API Well No.	30-045- 32391
10. Field and Pool, or Exploratory	Basin Fruitland Coal
11. Sec., T., R., M., or Blk. and Survey or Area	C Sec. 10-T29N-R14W, NMPM

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER
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

2. Name of Operator Richardson Operating Company
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3a. Address 3100 La Plata Hwy, Farm., NM 87401	3b. Phone No. (include area code) 564-3100
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4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 835' FNL & 1850' FWL At proposed prod. zone Same
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14. Distance in miles and direction from nearest town or post office* 3 miles East of Kirtland, NM	12. County or Parish San Juan	13. State NM
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15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 835'	16. No. of Acres in lease 2,492.10	17. Spacing Unit dedicated to this well W/2 320.00 Acres
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18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1850'	19. Proposed Depth 1050'	20. BLM/BIA Bond No. on file BLM Nationwide #158293308
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21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5380 GL	22. Approximate date work will start* Upon approval	23. Estimated duration One week
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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. |

25. Signature 	Name (Printed/Typed) Paul Lehrman	Date 6-2-04
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Title Petroleum Landman
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Approved by (Signature) 	Name (Printed/Typed)	Date 6/24/04
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Title Acting Field Manager - Minerals	Office
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Application approval does not warrant or certify the 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.

\*(Instructions on reverse)

NMROCD

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

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 30-045- <b>32391</b>	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code <b>27015</b>	Property Name ROPCO 10	Well Number 3
OGED No. 19219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5380'

## Surface Location

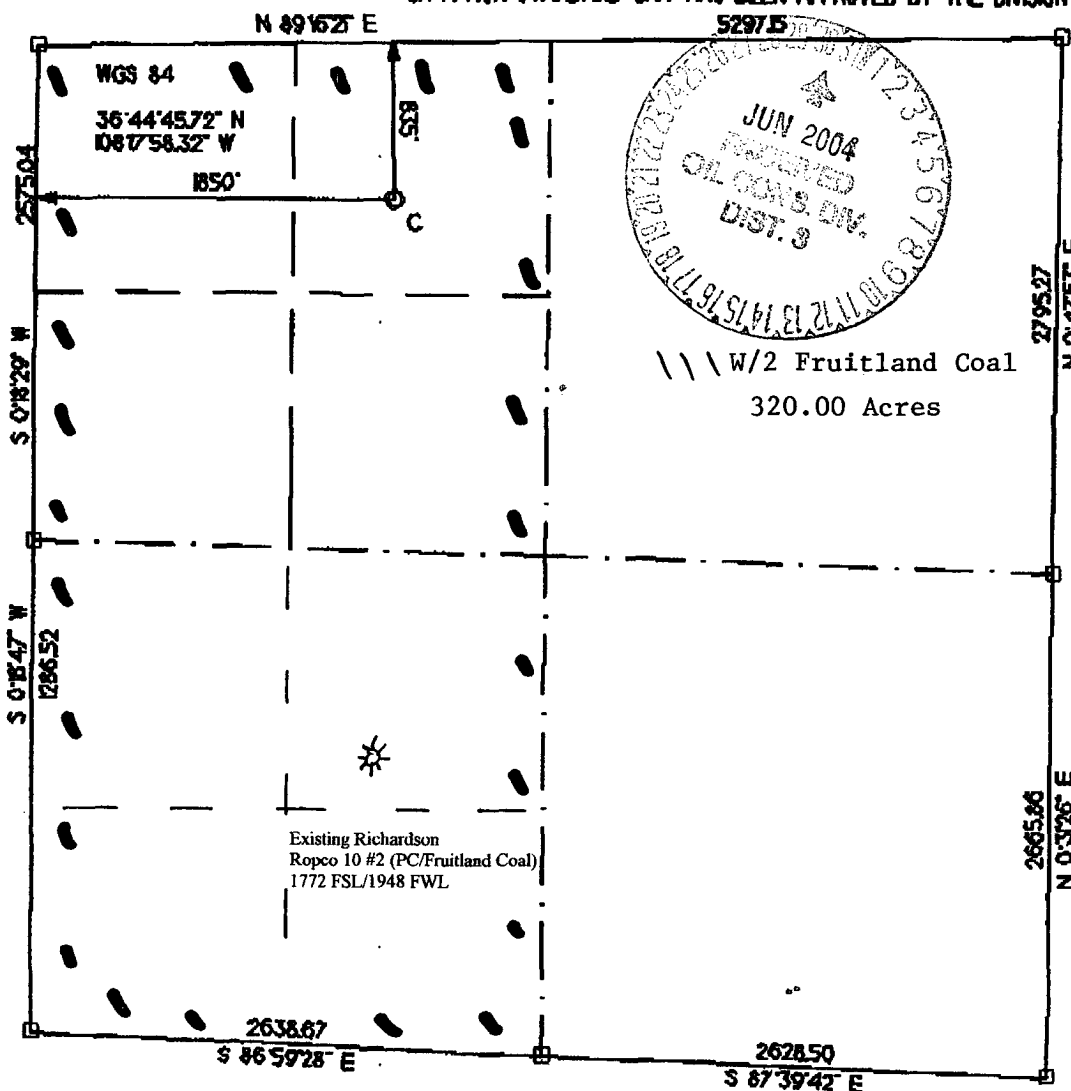
UL or Lot	Sec.	Twp.	Rge.	Lot Id.	Feet from	North/South	Feet from	East/West	County
C	10	29 N.	14 W.		835'	NORTH	1850'	WEST	SAN JUAN

## Bottom Hole Location If Different From Surface

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

Dedication W/2 320	Joint ?	Consolidation	Order No.
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NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	<i>[Signature]</i>
Printed Name	Paul Lehrman
Title	Landman
Date	6-2-04
<b>SURVEYOR CERTIFICATION</b> 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	5/1/04
Signature and Seal of Professional Surveyor	<i>[Signature]</i> 

**Richardson Operating Company  
Ropco 10 #3  
835' FNL & 1850' FWL  
Section 10, T29N, R14W, NMPM  
San Juan County, New Mexico**

**DRILLING PROGRAM**

**1. ESTIMATED FORMATION TOPS:**

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
Kirtland Shale	Surface	5'	+5,380'
Fruitland Fm	650'	655'	+4,730'
Basal Fruitland Coal	830'	835'	+4,550'
Pictured Cliffs Ss	860'	865'	+4,400'
Total Depth (TD)*	1050'	1055'	+4,330'

\*All elevations reflect the ungraded ground level of 5,380'

**2. NOTABLE ZONES:**

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

Water zones will be protected with casing, cement, and water based mud. Fresh water encountered during drilling will be recorded by depth. Centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. Number of centralizers will be based on API standards. A turbulizing centralizer will be run to ensure an adequate cement procedure just below the base of the lowest usable water zone. Oil and gas shows will be tested for commercial potential based on the well site representatives recommendations.

**3. PRESSURE CONTROL:**

The drilling contract has not yet been awarded, thus the exact BOP model to be used is unknown. (A typical 2,000 psi model has been attached to the end of the drilling program.) 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 1000 psi.

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 rated to 2000 psi. Maximum expected pressure is less than 1000 psi.

**Drilling Program**  
**Richardson Operating Company**

Page Two

**4. CASING AND CEMENTING PROGRAM:**

<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	J-55	New	120'
6 1/4"	4 1/2"	10.5	J-55	New	1050'

Surface casing will be cemented to surface with  $\approx 36$  cu.ft. (<sup>30</sup> $\approx 35$  sx) Class B + 2% CaCl. Volume is based on 100% excess, yield of 1.18 cu.ft./sk, and slurry weight of 15.6 ppg. WOC = 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 drilling fluid to surface. Thirty barrels of fresh water will then be circulated. Lead with  $\approx 115$  cu.ft. (<sup>100</sup> $\approx 75$  sx) Class B with 2% metasilicate (yield = 2.06 cu.ft./sk, slurry weight = 12.5 ppg). Tail in with  $\approx 65$  cu.ft. (<sup>83</sup> $\approx 70$  sx) Class B with 2% CaCl (yield = 1.18 cu.ft./sk, weight = 15.6 ppg). Total cement volume is  $\approx 180$  cu.ft. based on 100% excess and circulating to surface. <sup>238</sup>

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

**5. MUD PROGRAM:**

Surface casing hole will be drilled with fresh water mud. Production casing hole will be drilled with a fresh water polymer mud. Weighting material will be drill solids or, if needed, barite. Maximum expected mud weight will be 8.7 ppg. Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well while drilling.

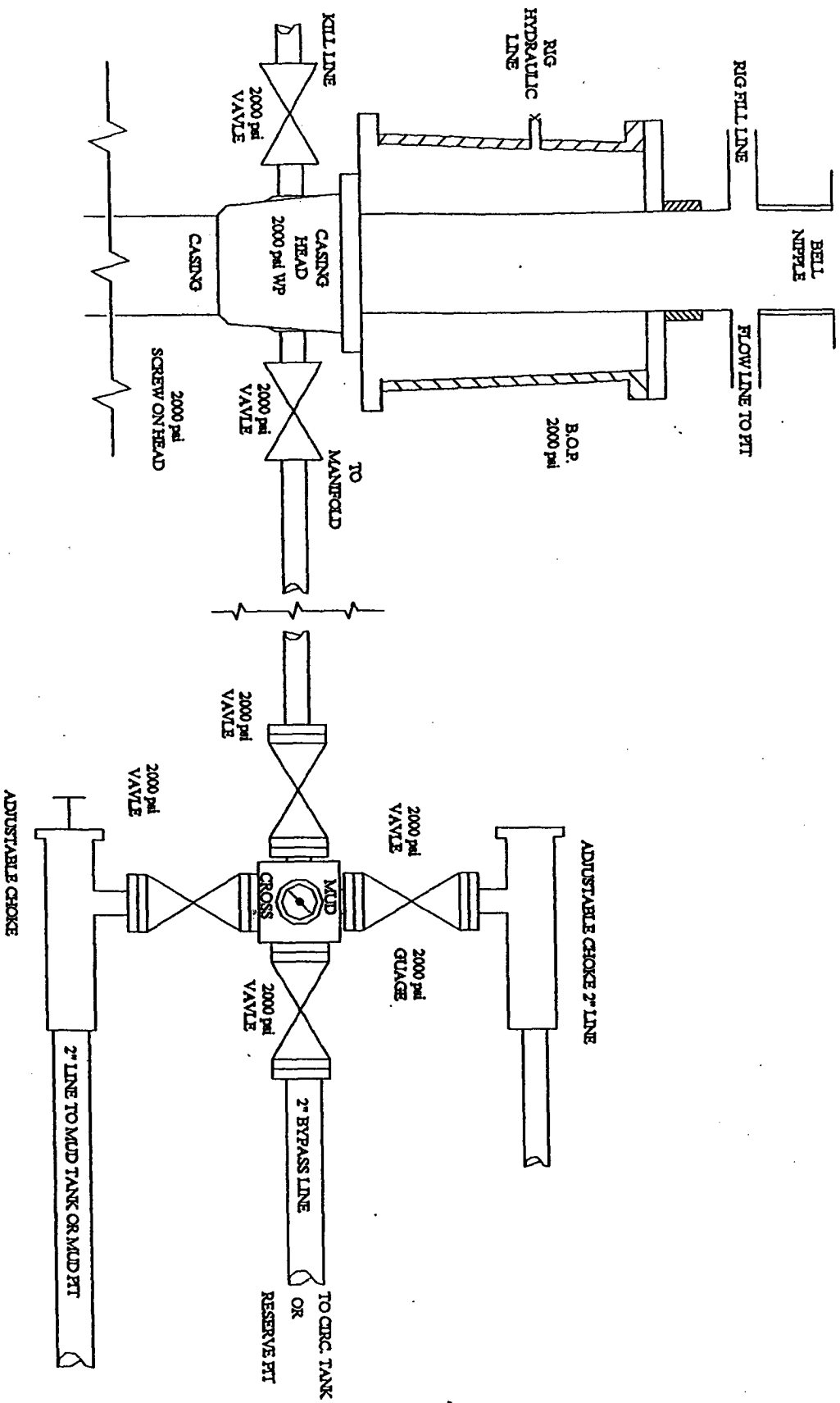
**6. CORING, TESTING, & LOGGING:**

No cores or DSTs are planned. A cased hole CNL/GR will be run from TD to surface.

**7. DOWNHOLE CONDITIONS:**

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum pressure will be approximately  $\approx 520$  psi. Although no hydrogen sulfide is expected while drilling, if encountered appropriate safety measures will be instituted. After the well is in production, if hydrogen sulfide is encountered, appropriate safety measures will be instituted to ensure the safety of the public, Richardson employees, contractors, or anyone expected to work or recreate in the vicinity. This may include, but not be limited to, monitoring, flagging or other measures appropriate for the situation.

# BLOW OUT PREVENTER (B.O.P.)



Submit 3 Copies To Appropriate District  
Office  
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

Form C-103  
March 4, 2004

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

WELL API NO. 30-045-
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/> Federal NMSF- 078110
6. State Oil & Gas Lease No. N/A
7. Lease Name or Unit Agreement Name ROPCO 10
8. Well Number #3
9. OGRID Number 19219
10. Pool name or Wildcat Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
Richardson Operating Company

3. Address of Operator  
3100 La Plata Highway, Farmington, NM 87401

4. Well Location  
Unit Letter C : 835 feet from the North line and 1850 feet from the West line  
Section 10 Township 29N Range 14W NMPM San Juan County NM

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
5380 GL

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: ULC Sect 10 Twp 29N Rng 14W Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1/2 mile  
Distance from nearest surface water >1000' Below-grade Tank Location UL      Sect      Twp      Rng      ;  
feet from the      line and      feet from the      line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: Pit Permit ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Paul Lehrman TITLE Landman DATE 6-2-04  
Type or print name Paul Lehrman E-mail address: plehrman@digii.net Telephone No. 564-8115

(This space for State use)

APPROVED BY      TITLE      DATE       
Conditions of approval, if any:

Ropeco 10 # 3  
well pad and section

