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Form 3160-3 (Septémber 2001)		250 NOV -	-5 PM	7: 00 FORM A OMB No.	PPROVED 1004-0136	) 5
FEB 2004 UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANAC		070 Fest	ringlof	5. Lease Serial No. NMNM-01386	uary 31, 20	04
APPLICATION FOR PERMIT TO DR		REENTER		6. If Indian, Allottee N/A	or Tribe I	Name
la. Type of Work: DRILL REENTER	2			7. If Unit or CA Agre N/A	ement, Na	ame and No.
1b. Type of Well: Oil Well XX Gas Well Other XX Single Zone Multiple Zone				8. Lease Name and Well No. Federal +12-25 #4		
2. Name of Operator Richardson Operating Company				9. API Well No. 30-045-	319	98
		No. (include area code) 54–3100		10. Field and Pool, or Exploratory Basin Fruitland Coal		
17001 777				11. Sec., T., R., M., or Blk. and Survey or Area  Sec. 25-T28N-R8W, NMPM		
14. Distance in miles and direction from nearest town or post office*  17 miles SE of Blanco, NM				12. County or Parish San Juan		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease 17. Spacin		g Unit dedicated to this well W/2 320.00 Acres			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  125	1 ' '		BIA Bond No. on file Nationwide #158293308			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6300 GL	22. Approximate date work will start* Upon approval		23. Estimated duration 2 wweks			
	24. At	tachments				
<ol> <li>The following, completed in accordance with the requirements of Onshor</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>		4. Bond to cover the litem 20 above). 5. Operator certification.	he operation ation. specific info	s form:  ns unless covered by an  ormation and/or plans as		·
25. Signature   Name (Printed/Typed)   Paul Lehrman			n	-	Date	11/4/03
Title Landman		1441				11/4/03
Approved by (Signature)		Name (Printed/Typed)			Date	
Title	Office					
Application approval does not warrant or certify the the applicant holds le operations thereon.  Conditions of approval, if any, are attached.	egal or equit	able title to those rights in	the subject l	lease which would entitle	the appli	cant to conduct
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations as to	a crime for any matter	any person knowingly an within its jurisdiction.	d willfully to	o make to any departmen	nt or agen	cy of the United
*(Instructions on reverse)						——————————————————————————————————————

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".

# State of New Mexico Energy. Minerals & Mining Resources Department OL CONSERVATION DIVISION 2040 South Pacheco Santa Fe. NM 87505

MENDED REPORT

OGRID No.   Operator Name   I	
Property Code  GLGT  GSRD No.  19219  RICHARDSON OPERATING COMPANY  Surface Location  UL or Lot Sec. Twp. Rge. Lot ldn. Feet from> North/South Feet from> East/Weet Code  C 25 28 N. 8 W. 1245' NORTH 1780' WEST SAN  Bottom Hole Location If Different From Surface  UL or Lot Sec. Twp. Rge. Lot ldn. Feet from> North/South Feet from> East/Weet Code  Order No.  No ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNITL ALL INTERESTS HAVE BEEN CONSOLIDATED  No ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNITL ALL INTERESTS HAVE BEEN CONSOLIDATED  S279' GR A NON-STANDARD UNIT HAS BEEN APPROVE  "" calculated  OPERATOR CERT I hereby certify that contained herein is the to the best of my land belief.	
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OGRD No.  19219  RICHARDSON OPERATING COMPANY  Surface Location  UL or Lot Sec. Twp. Rge. Let kin. Feet from> North/South Feet from> Exet/Weet Co.  C 25 28 N. 8 W. 1245' NORTH 1780' WEST SAN  Battom Hole Location If Different From Surface  UL or Lot Sec. Twp. Rge. Let kin. Feet from> North/South Feet from> Exet/Weet Co.  Dedication Joint? Consolidation Order No.  NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTL. ALL INTERESTS HAVE BEEN CONSOLIDATED  N 89-51' W 5279' OR A NON-STANDARD UNIT HAS BEEN APPROVE  ** from BLM\GLO  ** calculated  OPERATOR CERT I hereby certify that contained herein is the form the best of my kin belief.	ol Number
RICHARDSON OPERATING COMPANY  Surface Location  UL or Lot Sec. Trip. Rge. Let ldt. Feet from> North/South Feet from> East/West Co.  25 28 N. 8 W. 1245' NORTH 1780' WEST SAN  Bottom Hole Location If Different From Surface  UL or Lot Sec. Trip. Rge. Let ldt. Feet from> North/South Feet from> East/West Co.  Dedication Joint? Contactidation Order No.  NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED  ** from BLM\GLO**  ** from BLM\GLO**  ** calculated  OPERATOR CERT I hereby certify that contained herein is the best of my land belief.	4
Surface Location  UL or Lot Sec. Tup. Rgs. Lot Idn. Feet from> North/South Feet from> East/Weet Co  C 25 28 N. 8 W. I245' NORTH I780' WEST SAN  Bottom Hole Location If Different From Surface  UL or Lot Sec. Tup. Rgs. Lot Idn. Feet from> North/South Feet from> East/Weet Co  Dedication Joint? Consolidation  Order No.  NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNITL ALL INTERESTS HAVE BEEN CONSOLIDATED  S279' OR A NON-STANDARD UNIT HAS BEEN APPROVE  **from BLM\GLO  **From BLM\GLO  **Calculated**  OPERATOR CERT I hereby certify that contained herein is true to the best of my kin belief.	<b>Jevation</b>
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Landman	
Date 11/4/03	
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I hereby certify that on this plat was platte	the well location and from field
Hashed Line \\\\\\\ W/2 Fruitland Coal  hotes of actual surve or under my supervision	ys made by me
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Do Date of Survey	03
Z Signature and Shill And	
MM , notering and beautiful of 070 house of the man of the control	(3)
Federal 41-25 #2 00 (6844)	
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N 89 51' W ** 5280' *	

	UNITED STATI DEPARTMENT OF THE BUREAU OF LAND MAN Y NOTIGES AND REP	INTERIOR AGEMENT	RECEIVE!	FORM APPROVED OMB No. 1004-0135 Expires January 31, 2004  5. Lease Serial No. NMNM-013860A		
್ಲ್ Do-not use th	is form for proposals to II. Use Form 3160-3 (AP	odrili or to re-ente	Dan 1104 24 PM	26. Mindian, Allottee or Tribe Name N/A		
SUBMIT IN TR	IPLICATE - Other inst	uctions on revers	7016 amington,	N/H Unit or CA/Agreement, Name and/or No.		
1. Type of Well Gas Well I	Other			8. Well Name and No. Federal 41-25 #3		
2. Name of Operator  Richardson Operator  3a. Address	ating Company	3b. Phone No. (incl.)	ude area code)	9. API Well No. 30-045- 31998		
3100 La Plata Hw 4. Location of Well (Footage, Sec.	y, Farm, NM 87401 T., R., M., or Survey Description	564-310	· · · · · · · · · · · · · · · · · · ·	10. Field and Pool, or Exploratory Area Basin Fruitland Coal		
	780' FWL-Sec.25-7			11. County or Parish, State San Juan Co., NM		
12. CHECK AP	PROPRIATE BOX(ES) T	O INDICATE NAT	URE OF NOTICE, RE	EPORT, OR OTHER DATA		
TYPE OF SUBMISSION		7	YPE OF ACTION			
Notice of Intent	Acidize Alter Casing Casing Repair	Deepen Fracture Treat New Construction	Production (Start) Reclamation Recomplete	Resume)		
Subsequent Report  Final Abandonment Notice	Change Plans Convert to Injection	Plug and Abandon Plug Back				
If the proposal is to deepen dire Attach the Bond under which it following completion of the inv testing has been completed. Fi determined that the site is ready	ctionally or recomplete honzont ne work will be performed or prior of the operations. If the operational Abandonment Notices shall for final inspection.)	ully, give subsurface local ovide the Bond No. on the normal tiple come filed only after all recommendations the compacts the	tions and measured and tru le with BLM/BIA. Requir impletion or recompletion in quirements, including reclan name of the we	y proposed work and approximate duration thereof. e vertical depths of all pertinent markers and zones. ed subsequent reports shall be filed within 30 days in a new interval, a Form 3160-4 shall be filed once mation, have been completed, and the operator has  11 as referenced above be 2 Federal 12-25 #4. Per OCD		
requirements this case is as the Federa All other inf	the infill well the Federal 41-2 1 12-25 #4. Ther formation submitt	nust have the 5 #2. The APD efore the welled to the BLM	same name as filed on 11/4 name of the filed on 11/4 name of the file of the f	the parent well, which in 1/03 had the name of the well be the Federal 41-25 #3.		
	02 is attached.	D	EC 1 0 2003			
This well has	not been drille	d. <b>BY</b> _	- Dr			
14. I hereby certify that the foregoin Name (Printed/Typed)		Tist	Landman			
Signature Va	Paul Lehrman	Title Date	11/20/03	ACCEPTED FOR RECORD		
	THIS SPACE	FOR PEDERAL OR	STATE OFFICE USE	ACCEPTED FOR RECORD		
Approved by			Title	DEC 1 0 2003		
Conditions of approval, if any, are certify that the applicant holds legs which would entitle the applicant to	d or equitable title to those righ	ce does not warrant or its in the subject lease	Office	FARMINGTON DISTRICT OFFICE BY		
Title 18 U.S.C. Section 1001 and Ti States any false, fictitious or fraudul	tle 43 U.S.C. Section 1212, makent statements or representations	e it a crime for any perso as to any matter within its	n knowingly and willfully to s jurisdiction.	to make to any department or agency of the United		

FARMING TONOCO

(Instructions on reverse)

## Richardson Operating Company Federal 12-25 #4 1245' FNL & 1780' FWL Section 25, T28N, R8W, NMPM San Juan County, New Mexico

### **DRILLING PROGRAM**

### 1. ESTIMATED FORMATION TOPS:

Formation Programme 1	GL Depth	KB Depth	Subsea Elevation
San Jose	000'	5'	+6,300'
Nacimiento	805'	810'	+5,495'
Ojo Alamo Ss	1850'	1855'	+4,450'
Kirtland Shale	2039'	2044'	+4,261'
Fruitland Formation	2552'	2557'	+3,778'
Pictured Cliffs Ss	2840'	2845'	+3,460'
Total Depth (TD)*	3000'	3005'	+3,300'
and the second s			

<sup>\*</sup>All elevations reflect the ungraded ground level of 6,300'

### 2. NOTABLE ZONES:

Gas Zones	Water Zones	Coal Zones
Fruitland	Ojo Alamo	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. Centralizers will be run through the Ojo Alamo. A turbulizing centralizer will be run at the base of the Ojo Alamo to ensure an adequate cement procedure. 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 floor safety valve and choke manifold rated to 2000 psi. Maximum expected pressure is less than 1000 psi.

# **Prilling Program**Richardson Operating Company

Page Two

### 4. CASING AND CEMENTING PROGRAM:

Hole Size	<u>O.D.</u>	Weight (lb/ft)	<u>Grade</u>	<u>Age</u>	GL Setting Depth
8 3/4"	7"	20	K-55	New	300'
6 ¼"	4 1/2"	10.5	K-55	New	3000'

Surface casing will be cemented to surface with  $\approx 100$  cu.ft. ( $\approx 85$  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  $\approx 360$  cu.ft. ( $\approx 185$  sx) Class B with 2% metasilicate (yield = 2.06 cu.ft./sk, slurry weight = 12.5 ppg). Tail in with  $\approx 155$  cu.ft. ( $\approx 132$  sx) Class B with 2% CaCl (yield = 1.18 cu.ft./sk, weight = 15.6 ppg). Total cement volume is  $\approx 525$  cu.ft. based on 100% excess and circulating to surface.

Production casing will have 4 ½" 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. 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 ≈520 psi.

### 8. OTHER INFORMATION:

The anticipated spud date is November 30, 2003. It should take 5 days to drill and 1 week to complete the well.