

2004 JUN 21 AM 9 09

Form 3160-3  
(September 2001)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTRECEIVED  
070 FARMINGTON NMFORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMSF-079968  
6. If Indian, Allottee or Tribe Name  
N/A  
7. If Unit or CA Agreement, Name and No.1a. Type of Work: ☒ DRILL ☐ REENTER1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone2. Name of Operator  
Richardson Operating Company8. Lease Name and Well No.  
WF Federal 33 #53a. Address  
3100 La Plata Hwy, Farm., NM 874013b. Phone No. (include area code)  
564-31009. API Well No.  
30-045- 32435

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface 1855' FSL &amp; 995' FEL

At proposed prod. zone Same

10. Field and Pool, or Exploratory  
Basin Fruitland Coal11. Sec. T, R, M., or Blk. and Survey or Area  
I Sec. 33-T30N-R14W, NMPM14. Distance in miles and direction from nearest town or post office\*  
6 miles NE of Kirtland, NM15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any) 995'16. No. of Acres in lease  
2,523.7217. Spacing Unit dedicated to this well  
331.93 Acres E/A18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 1160'19. Proposed Depth  
1050'20. BLM/BIA Bond No. on file  
BLM Nationwide #15829330821. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5436' GL22. Approximate date work will start\*  
Upon approval23. Estimated duration  
One week

## 24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
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

6-21-04

Title

Petroleum Landman

Approved by (Signature)

Name (Printed/Typed)

Date

7-26-04

Title

Office

FTO

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)

APPROVED AUTHORIZED ARE  
IN COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

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

NMOCB

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>32435</b>	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code <b>26973</b>	Property Name WF FEDERAL 33	Well Number 5
OGRID No. 19219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5436'

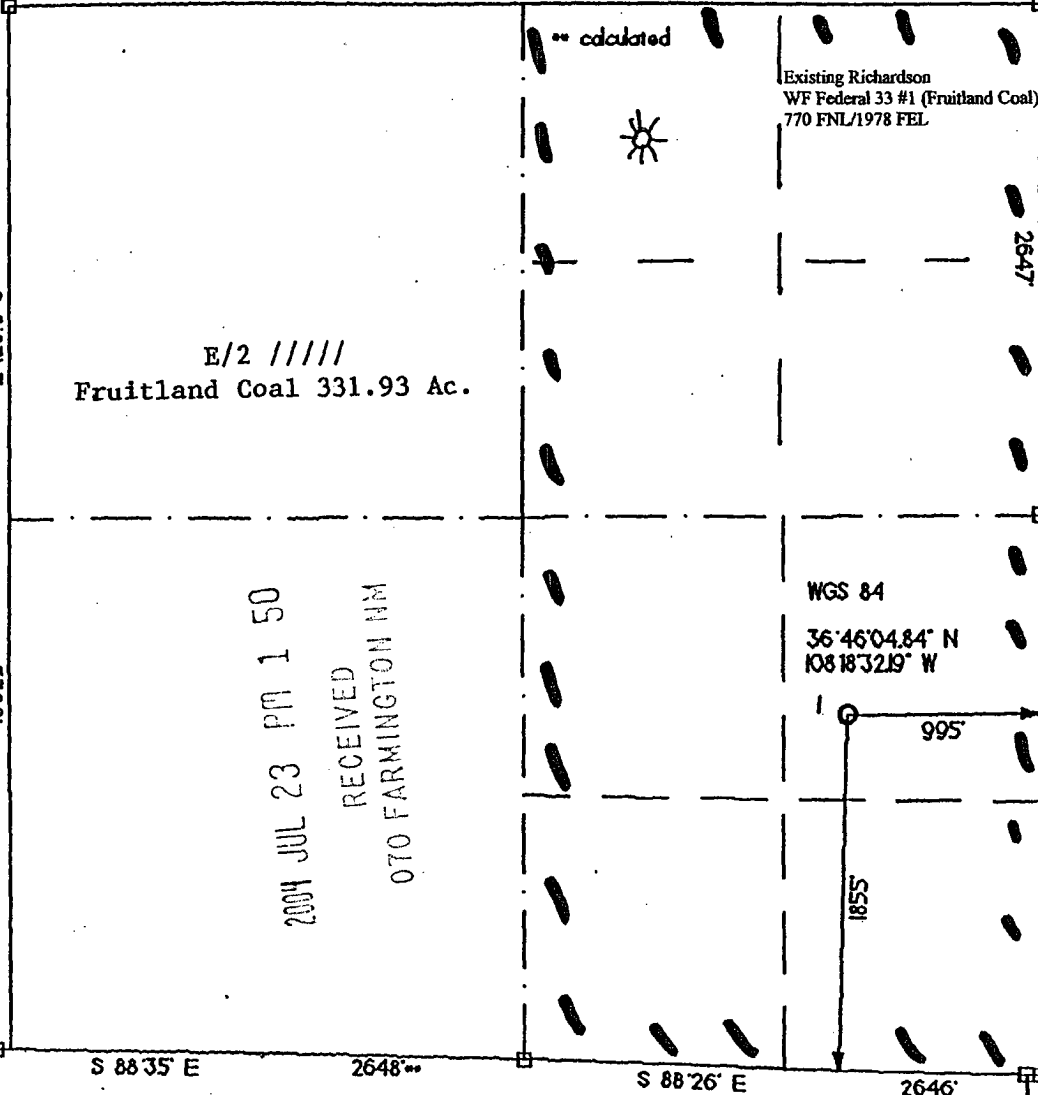
Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Lk.	Feet from >	North/South	Feet from >	East/West	County
1	33	30 N.	14 W.		1855'	SOUTH	995'	EAST	SAN JUAN

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Lk.	Feet from >	North/South	Feet from >	East/West	County

Dedication E/2 331.93	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

S 89°58' W 5292'



<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	6-21-04
<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	
Signature and Seal of Professional Surveyor	<i>[Signature]</i>

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0135  
Expires: January 31, 2004**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.

NMSF-079968

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

PM 1 50

N/A

8. Well Name and No.

WF: Federal 33 #5

9. API Well No.

30-045-

32345

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

11. County or Parish, State

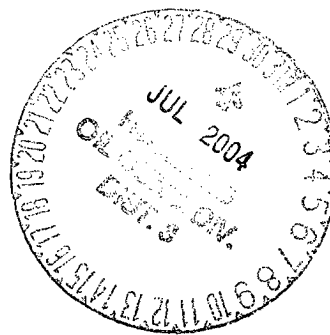
San Juan County, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other See Below change
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	spacing allocation
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Request spacing for Fruitland Coal be the E/2 of Section 33 versus the S/2 as applied for on APD submitted 6-21-04. Attached is revised C-102 showing unit allocation as E/2 being 331.93 Acres. This well has not been drilled. All other terms of the APD remain the same.



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Paul Lehrman

Title Landman

Signature

Date 7/23/04

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature)

Name

(Printed/Typed)

Ray Sanchez

Title

EP/ROW Term

Conditions of approval, if any, are attached. Approval of this notice does 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.

Office

PRO

Date

7/23/04

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.

(Continued on next page)

NMOCD

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 <input checked="" type="checkbox"/> NMSE-
6. State Oil & Gas Lease No. N/A 079965
7. Lease Name or Unit Agreement Name WF Federal 33
8. Well Number #5
9. OGRID Number 19219
10. Pool name or Wildcat Basin Fruitland Coal
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5436' GR

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 I : 1855 feet from the South line and 995 feet from the East line  
Section 33 Township 30 North Range 14 West NMPM San Juan County NM

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

Pit Location: UL I Sect 33 Twp 30N Rng 14W Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1/2 mi

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 TITLE Landman DATE 6-21-04

Type or print name Paul Lehrman E-mail address: plehrman@digii.net Telephone No. 564-8115

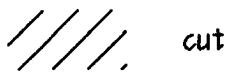
(This space for State use)

APPROVED BY TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 00 DATE JUL 30 2004  
Conditions of approval, if any:

WF Federal 33 # 5  
well pad and section



Scale 1" = 40'

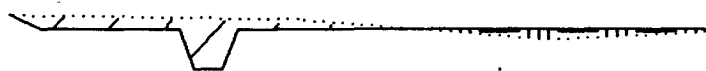
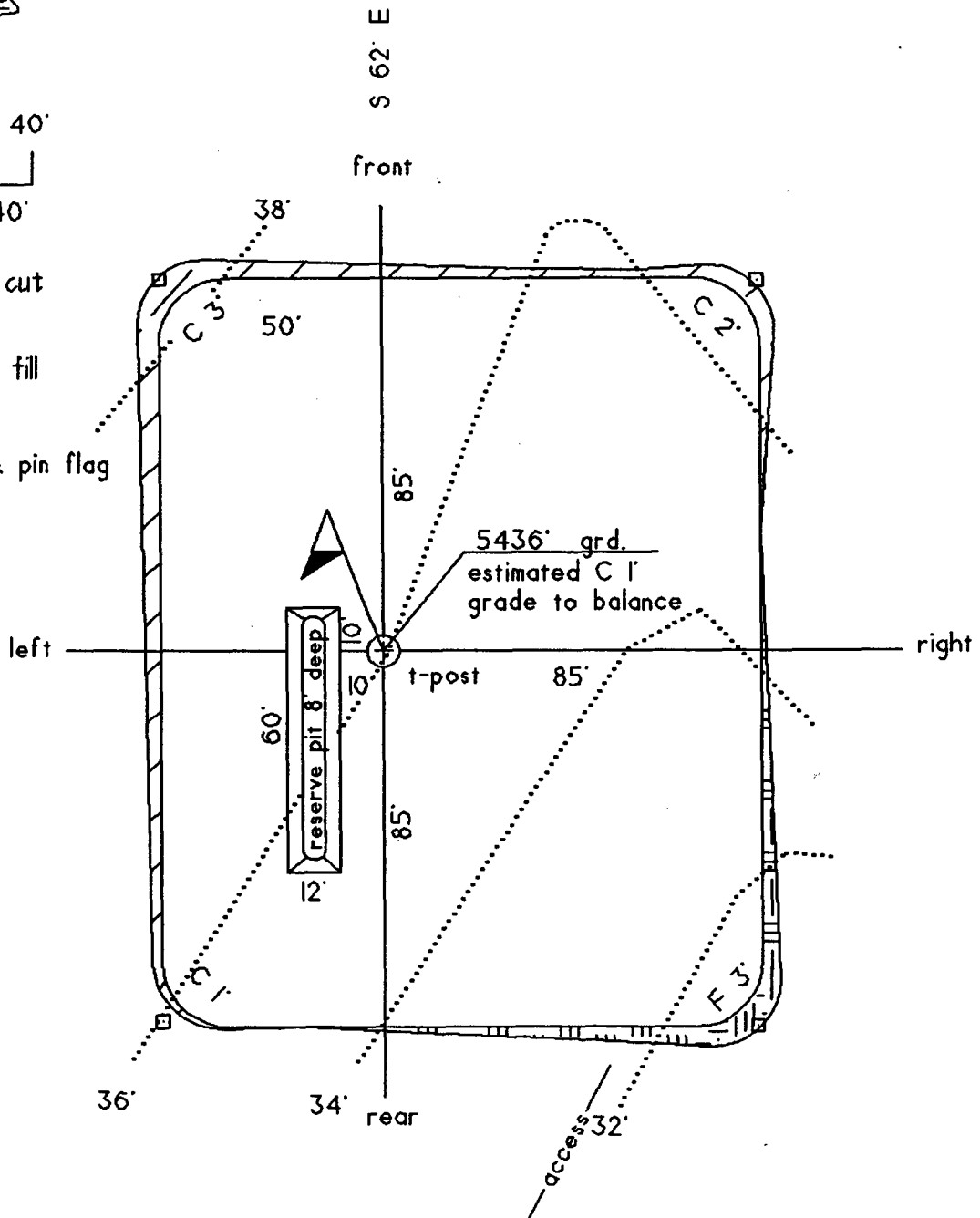


cut



fill

□ set stake & pin flag



section

**Richardson Operating Company**  
**WF Federal 33 #5**  
**1855' FSL & 995' FEL**  
**Section 33, T30N, 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>
Ojo Alamo/ Kirtland Shale	Surface	5'	+5,436'
Fruitland Fm	770'	850'	+4,666'
Basal Fruitland Coal	955'	1145'	+4,481'
Pictured Cliffs Ss	970'	1165'	+4,466'
Total Depth (TD)*	1050'	1205'	+4,386'

\*All elevations reflect the ungraded ground level of 5,436'

**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. ( $\approx 31$  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. ( $\approx 75$  sx) Class B with 2% metasilicate (yield = 2.06 cu.ft./sk, slurry weight = 12.5 ppg). Tail in with  $\approx 65$  cu.ft. ( $\approx 70$  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.  
237

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.)

