

RCVD APR 18 '07

OIL CONS. DIV.

DIST. 3

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007Form 3160-3
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR -3 AM 10:48

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		210 FARMING	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	
2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC			
3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413		3b. Phone No. (include area code) (505) 632-3476	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1700' FSL & 550' FEL At proposed prod. zone SAME		5. Lease Serial No. NMNM 23233	
14. Distance in miles and direction from nearest town or post office* 4 MILES NE OF NAGEEZI		6. If Indian, Allottee or Tribe Name N/A	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 550'		7. If Unit or CA Agreement, Name and No. N/A	
16. No. of acres in lease 800		8. Lease Name and Well No. SOUTH BLANCO FEDERAL 22 #5	
17. Spacing Unit dedicated to this well NE4SE4 (= 40 acres) I		9. API Well No. 30-045-34260	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,045' (22 #2)		10. Field and Pool, or Exploratory LYBROOK GALLUP	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,833' GL		11. Sec., T. R. M. or Blk. and Survey or Area I 22-24N-8W NMPM	
22. Approximate date work will start* 04/30/2007		12. County or Parish SAN JUAN	
23. Estimated duration 3 WEEKS		13. State NM	
24. Attachments			

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

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

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

25. Signature	Name (Printed/Typed) BRIAN WOOD	Date 03/30/2007
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Title CONSULTANT	PHONE: (505) 466-8120	FAX: (505) 466-9682
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Approved by (Signature)	Name (Printed/Typed)	Date 4/17/07
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Title AFM	Office FFO
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Application approval 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.

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 page 2)

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

NMOCB

4/19/07

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-34260		*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 23019	*Property Name SOUTH BLANCO FEDERAL 22		*Well Number 5
*OGRID No. 149052	*Operator Name ELM RIDGE EXPLORATION, LLC		*Elevation 6833'

¹⁰ Surface Location

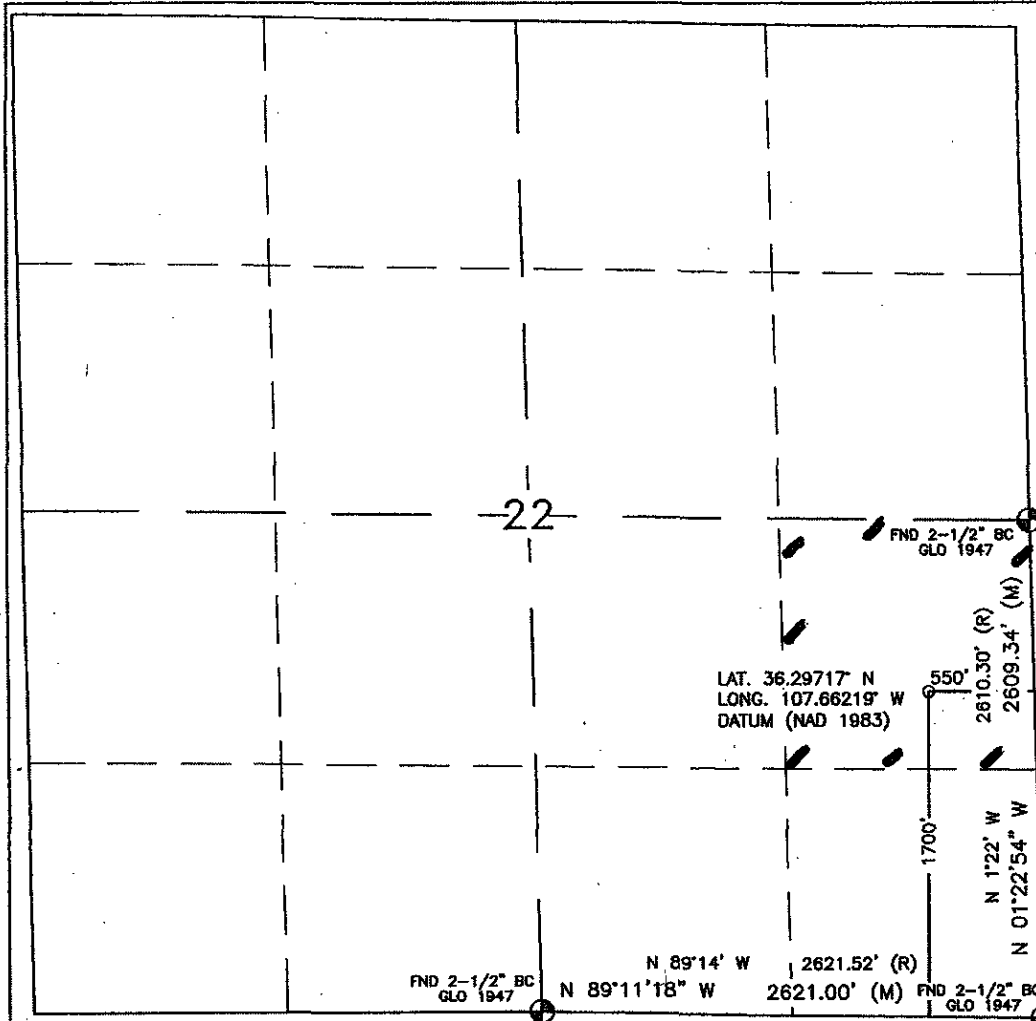
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	22	24N	8W		1700'	SOUTH	550'	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres 40		*Joint or Infill		*Consolidation Code		*Order No.			
								OIL CONS. DIV. DIST. 3	

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

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner or a compulsory pooling order heretofore entered by the division.

Brian Wood **2-30-07**
Signature Date

BRIAN WOOD
Printed Name

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown 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.

FEBRUARY 2, 2007
Date of Survey

Signature and Seal of Professional Surveyor:
David R. Russell

DAVID RUSSELL
Certificate Number **10201**

District I

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

WELL API NO.
30-045- **34260**

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. ~~State~~ Oil & Gas Lease No.
NMNM-023233

7. Lease Name or Unit Agreement Name
SOUTH BLANCO FEDERAL 22

8. Well Number 5

9. OGRID Number 149052

10. Pool name or Wildcat
LYBROOK GALLUP

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
ELM RIDGE EXPLORATION COMPANY, LLC

3. Address of Operator
P. O. BOX 156, BLOOMFIELD, NM 87413

4. Well Location

Unit Letter: I

1700' FSL & 550' FEL

Section 22

Township 24 North

Range 8 West

NMPM

SAN JUAN

County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6,833' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type: DRILLING Depth to Groundwater: >100' Distance from nearest fresh water well: >1,000' Distance from nearest surface water: >400'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls; Construction Material

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 COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: DRILLING PIT ☒

OTHER: ☐

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 NMOC guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Brian Wood TITLE: CONSULTANT

DATE: MAR. 30, 2007

Type or print name: BRIAN WOOD

E-mail address: brian@permitswest.com

Telephone No.: (505) 466-8120

For State Use Only

APPROVED BY: [Signature]

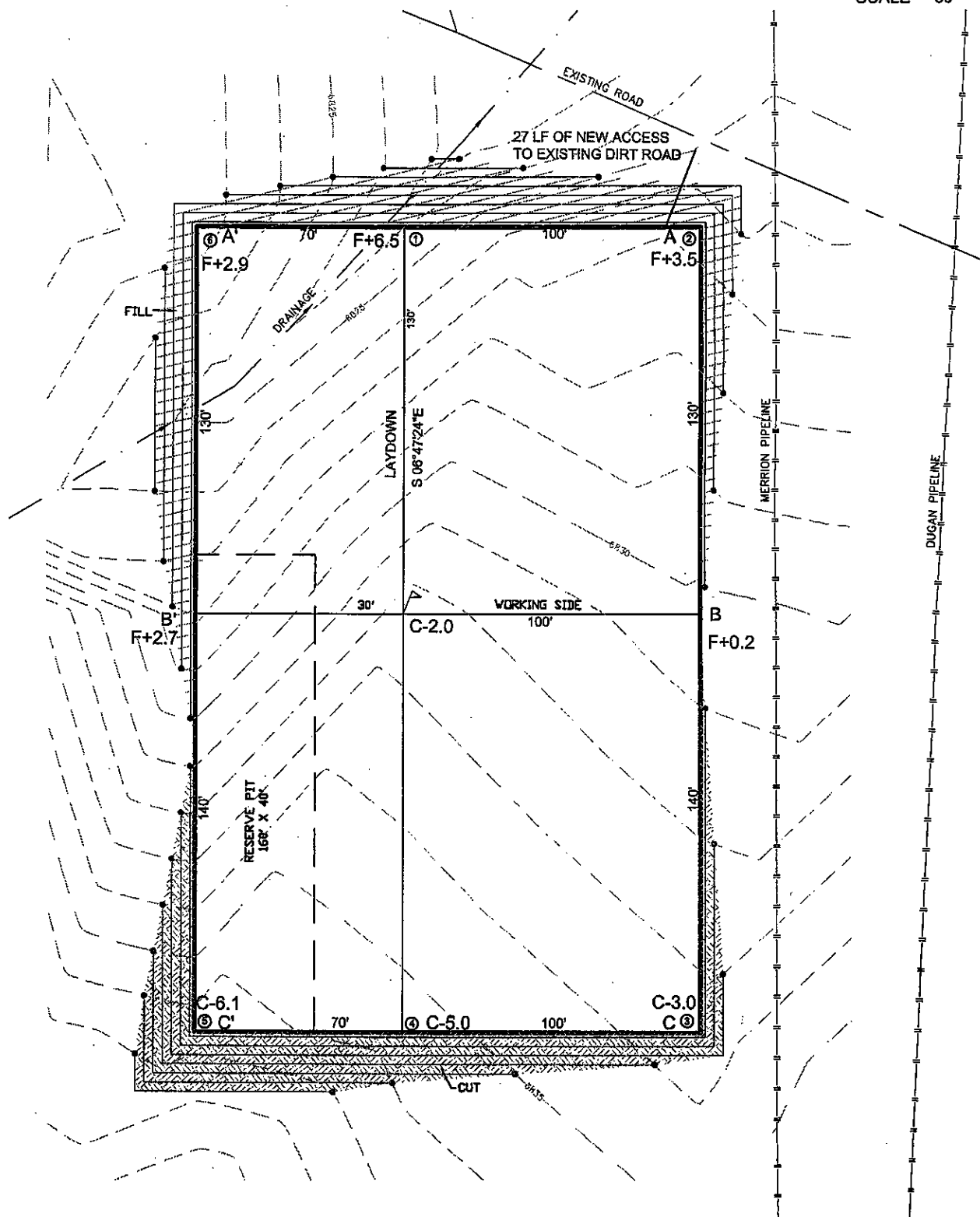
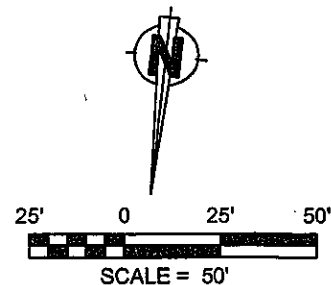
DEPUTY OIL & GAS INSPECTOR, DIST. #1
TITLE

DATE APR 19 2007


Conditions of Approval (if any):

LATITUDE: 36.29717°N
LONGITUDE: 107.66219°W
DATUM: NAD 83

ELM RIDGE EXPLORATION, LLC
SOUTH BLANCO FEDERAL 22 #5
1700' FSL & 550' FEL
LOCATED IN THE NE/4 SE/4 OF SECTION 22,
T24N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6833', NAVD 88
FINISHED PAD ELEVATION: 6830.5', NAVD 88



1 FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: ERE013
DATE: 02/08/07

 **Russell Surveying**
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

FINISHED PAD ELEVATION: 6830.5', NAVD 88

Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

Elm Ridge Exploration Company, LLC
South Blanco Federal 22 #5
1700' FSL & 550' FEL
Sec. 22, T. 24 N., R. 8 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+6,833'
Ojo Alamo	1,158'	1,170'	+5,675'
Kirtland	1,358'	1,370'	+5,475'
Fruitland	1,383'	1,395'	+5,450'
Pictured Cliffs	1,883'	1,895'	+4,950'
Lewis Shale	2,083'	2,095'	+4,750'
Chacra	2,758'	2,770'	+4,075'
Menefee Shale	3,458'	3,470'	+3,375'
Point Lookout	4,258'	4,270'	+2,575'
Mancos Shale	4,458'	4,470'	+2,375'
Gallup Sandstone	5,268'	5,270'	+1,565'
Total Depth	5,700'	5,712'	+1,133'

2. NOTABLE ZONES

Oil &/or Gas Zones

Fruitland
Pictured Cliffs
Gallup

Water Zones

Nacimiento
Fruitland
Pictured Cliffs

Coal Zone

Fruitland

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.

Elm Ridge Exploration Company, LLC
South Blanco Federal 22 #5
1700' FSL & 550' FEL
Sec. 22, T. 24 N., R. 8 W.
San Juan County, New Mexico

PAGE 2

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.

A $\geq 2,000$ psi BOP and choke manifold system will be installed and tested to 2,000 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 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 assure good 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

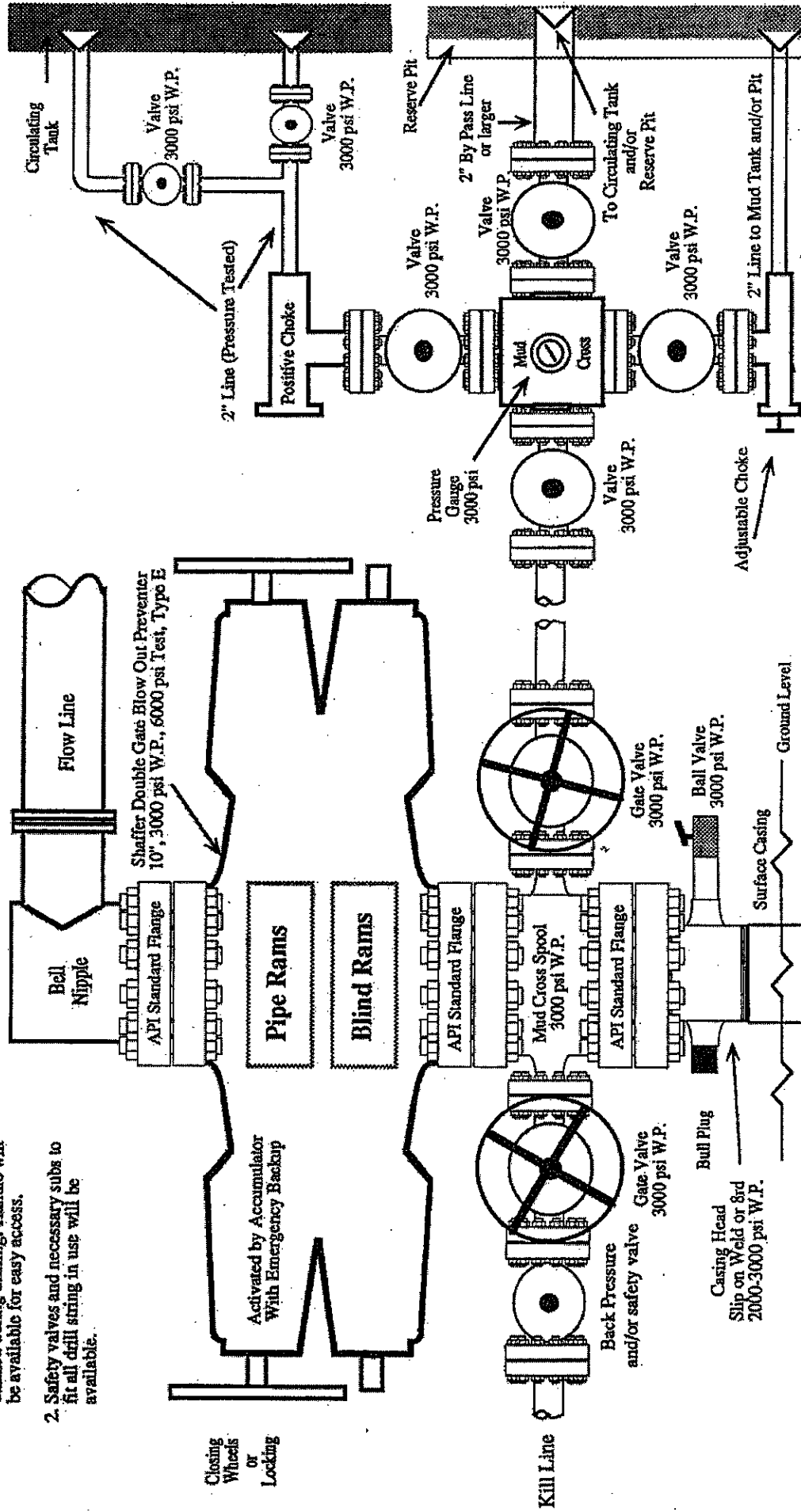
<u>Hole Size</u>	<u>O. D.</u>	<u>Pounds/Foot</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24	J-55 or K-55	S T & C	New	350'
7-7/8"	5-1/2"	10.5 15.5*	J-55	L T & C	New	5,700'

Surface casing will be cemented to the surface with ≈ 290 cubic feet (≈ 245 sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl_2 . 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.

Production casing will be cemented to the surface in 2 stages with a stage tool set @ $\approx 3,500'$. Centralizers will be installed on the middle of the shoe joint and on every joint thereafter (≥ 2 dozen centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

2,000 PSI BOP SYSTEM

- Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.

Elm Ridge Exploration Company, LLC
South Blanco Federal 22 #5
1700' FSL & 550' FEL
Sec. 22, T. 24 N., R. 8 W.
San Juan County, New Mexico

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First stage volume will be ≈ 782 cubic feet consisting of ≈ 185 sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2% CaCl_2 (yield = 1.87 cubic feet per sack, weight = 12.7 pounds per gallon) followed by ≈ 370 sacks Class B with 2% CaCl_2 (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Volume = >100% excess, but caliper logs will be used to determine actual volume needed.

Second stage volume will be $\approx 1,215$ cubic feet consisting of ≈ 618 sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2% CaCl_2 (yield = 1.87 cubic feet per sack, weight = 12.7 pounds per gallon) followed by ≈ 50 sacks of Class B with 2% CaCl_2 (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Volume = >100% excess, but caliper logs will be used to determine actual volume needed.

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
0' - 350'	Fresh water gel	9.0	50	NC	9
350' - TD	Fresh water gel	9.0	38 - 50	6.0	9

Enough material to maintain mud properties, control lost circulation, and contain a blowout will be at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR logs will be run from TD to surface. CNL/FDC logs may be run over selected segments. Samples will be collected every $\approx 10'$ through the Gallup. Samples will be collected every $\approx 30'$ elsewhere.

Elm Ridge Exploration Company, LLC
South Blanco Federal 22 #5
1700' FSL & 550' FEL
Sec. 22, T. 24 N., R. 8 W.
San Juan County, New Mexico

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7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\leq 2,280$ psi.

8. OTHER INFORMATION

The anticipated spud date is April 30, 2007. It is expected it will take 1 week to drill and 2 weeks to complete the well.