

RECEIVED

OCT 16 2007

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Farmington Field Office

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-078362
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		6. If Indian, Allottee or Tribe Name N/A RCVD NOV 13 '07
2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC		7. If Unit or CA Agreement, Name and No. N/A OIL CONS. DIV.
3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413	3b. Phone No. (include area code) (505) 632-3476	8. Lease Name and Well No. MARCUS B #2 DIST. 3
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1735' FNL & 2175' FEL At proposed prod. zone SAME		9. API Well No. 30-039- 30402
14. Distance in miles and direction from nearest town or post office* 4 AIR MILES NE OF LYBROOK		10. Field and Pool, or Exploratory ESCRITO GALLUP (ASSOC.)
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 905'		11. Sec., T. R. M. or Blk. and Survey or Area 5-23N-6W NMPM
16. No. of acres in lease 2,530.32	17. Spacing Unit dedicated to this well LOT 2 & SWNE (= 80.04 acres)	12. County or Parish RIO ARriba
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 880' (A #12)	19. Proposed Depth 5,800'	13. State NM
20. BLM/BIA Bond No. on file BLM STATE WIDE 886201C	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,871' GL	22. Approximate date work will start* 12/01/2007
23. Estimated duration 3 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. |

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 10/15/2007
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Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 11/8/07
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Title Office FFO

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

HOLD C104 FOR NSL

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

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

NOV 20 2007
AV

NMOCD
8

This action is subject to technical and procedural review pursuant to 43 CFR 3165.9 and appeal pursuant to 43 CFR 3165.4

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

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

OCT 16 2007

Bureau of Land Management ☐ AMENDED REPORT
Farmington Field Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30402	² Pool Code 22619	³ Pool Name ESCRITO GALLUP (ASSOCIATED)
⁴ Property Code 36835	⁵ Property Name MARCUS B	⁶ Well Number 2
⁷ OGRID No. 149052	⁸ Operator Name ELM RIDGE EXPLORATION, LLC	⁹ Elevation 6871'

¹⁰ Surface Location

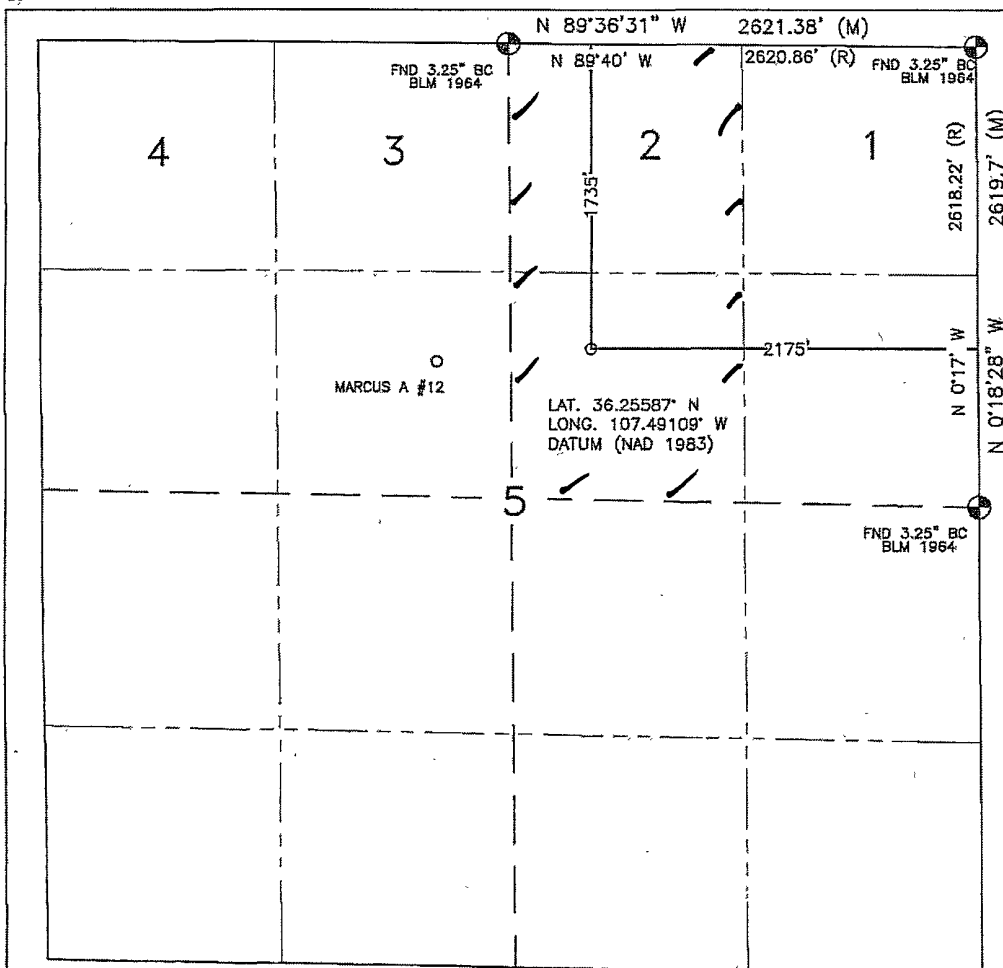
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	23N	6W		1735'	NORTH	2175'	EAST	RIO ARriba

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
¹² Dedicated Acres 80.04			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.		

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

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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 10-15-07
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.

JUNE 6, 2007

Date of Survey

Signature and Seal of Professional Surveyor:

David A. Russell
DAVID A. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
10201

DAVID RUSSELL

Certificate Number

10201

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
May 27, 2004

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

WELL API NO. 30-039- <u>30402</u>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NMSF-078362
7. Lease Name or Unit Agreement Name MARCUS B
8. Well Number 2
9. OGRID Number 149052
10. Pool name or Wildcat ESCRITO GALLUP (ASSOCIATED)
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6,871' GL

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: G 1735' FNL & 2175' FEL
Section 5 Township 23 North Range 6 West NMPM RIO ARRIBA County

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: >50'

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

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 ☐

OTHER: DRILLING PIT ☒

SUBSEQUENT REPORT OF:

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

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

SIGNATURE Brian Wood TITLE: CONSULTANT DATE: OCTOBER 15, 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] TITLE: Deputy Oil & Gas Inspector, District #3 DATE: NOV 20 2007

Conditions of Approval (if any):

Elm Ridge Exploration Company, LLC
Marcus B #2
1735' FNL & 2175' FEL
Sec. 5, T. 23 N., R. 6 W.
Rio Arriba County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	0'	12'	+6,871'
Ojo Alamo Sandstone	1,531'	1,543'	+5,340'
Kirtland Shale	1,671'	1,683'	+5,200'
Fruitland	1,956'	1,968'	+4,915'
Pictured Cliffs Sandstone	2,016'	2,028'	+4,855'
Lewis Shale	2,216'	2,228'	+4,655'
Chacra	2,636'	2,648'	+4,235'
Menefee Shale	3,126'	3,138'	+3,745'
Point Lookout Sandstone	4,366'	4,378'	+2,505'
Mancos Shale	4,526'	4,528'	+2,345'
Gallup Sandstone	5,506'	5,518'	+1,635'
Total Depth	5,800'	5,812'	+1,071'

2. NOTABLE ZONES

<u>Oil &/or Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Fruitland	
Gallup	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.

Elm Ridge Exploration Company, LLC
Marcus B #2
1735' FNL & 2175' FEL
Sec. 5, T. 23 N., R. 6 W.
Rio Arriba 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 $\approx 2,000$ psi before drilling the 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.

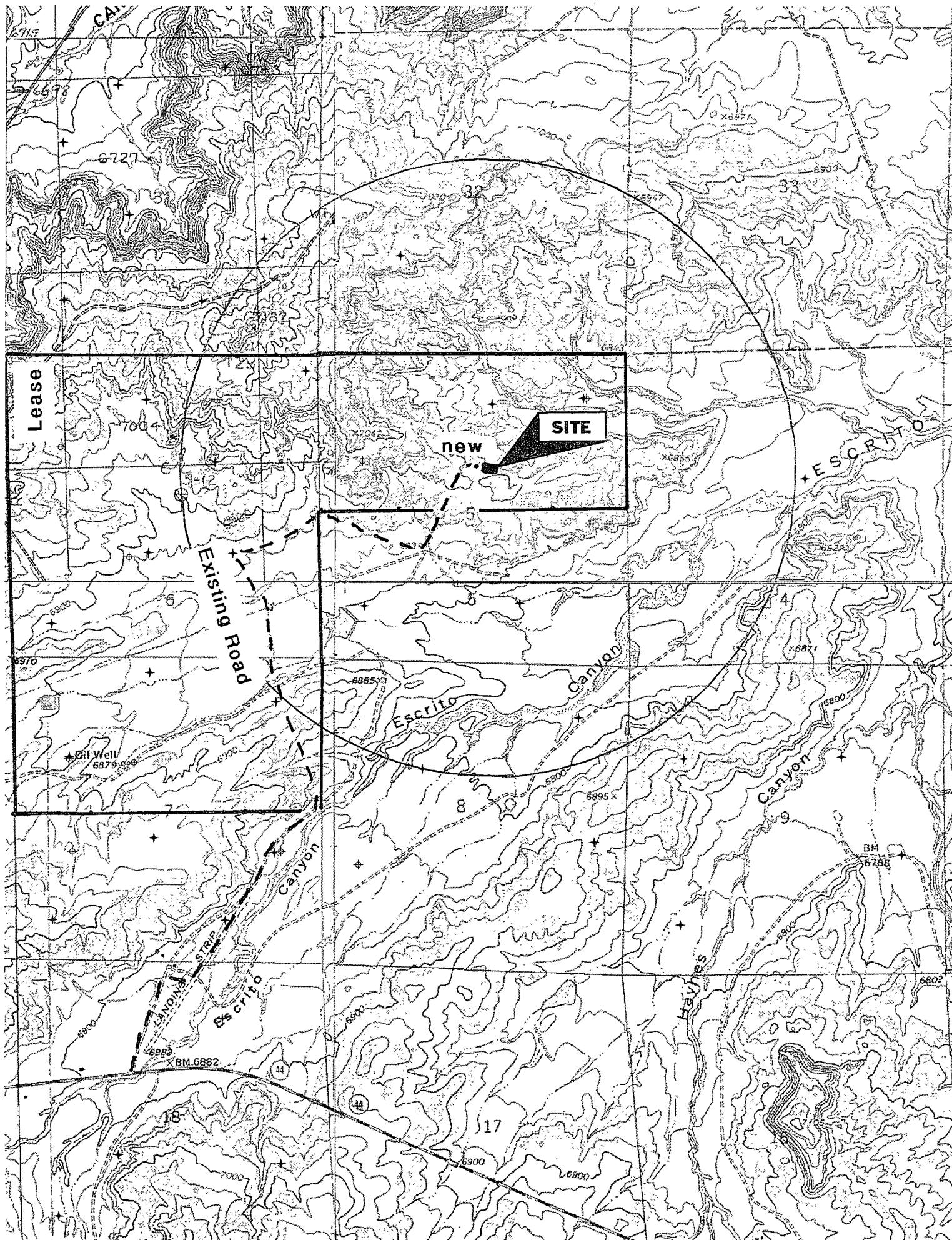
All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under 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	5,800'

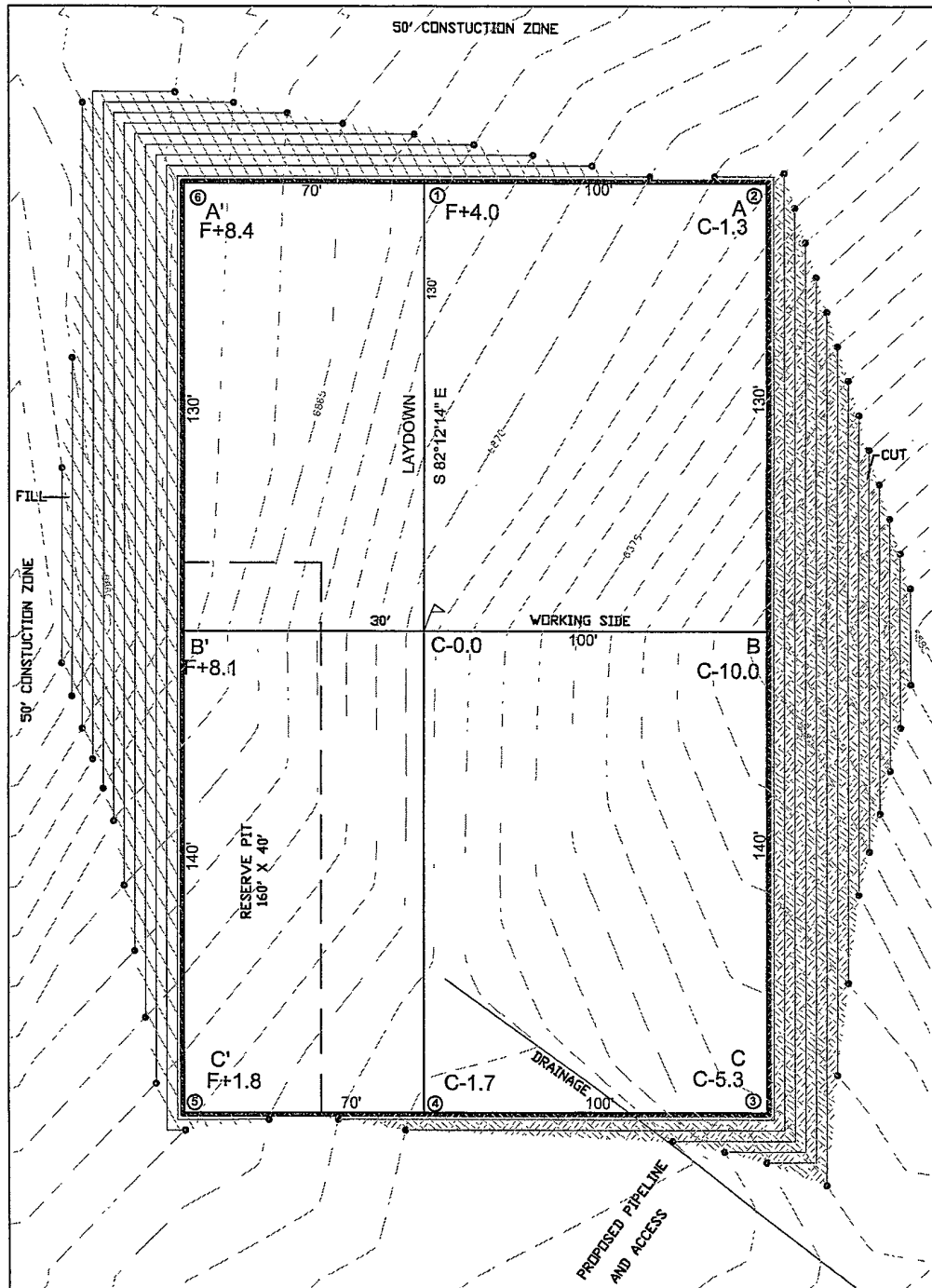
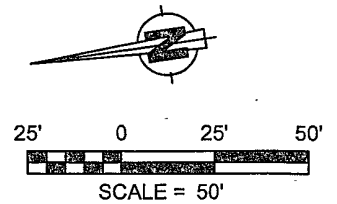
Surface casing will be cemented to the surface with ≈ 290 cubic feet (≈ 245 sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter.
~~centralizer~~
joint

Production casing will be cemented to the surface in 2 stages with a stage tool set @ $\approx 3,800'$. 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.



LATITUDE: 36.25587°N
LONGITUDE: 107.49109°W
DATUM: NAD 83

ELM RIDGE EXPLORATION, LLC
MARCUS B #2
1735' FNL & 2175' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 5,
T23N, R6W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO
GROUND ELEVATION: 6871', NAVD 88
FINISHED PAD ELEVATION: 6870.6', NAVD 88

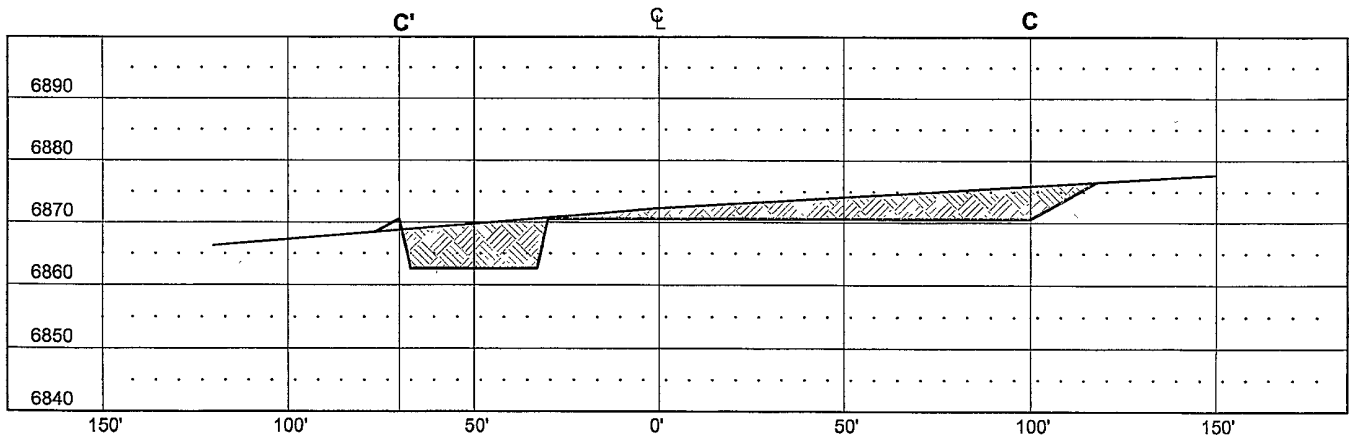
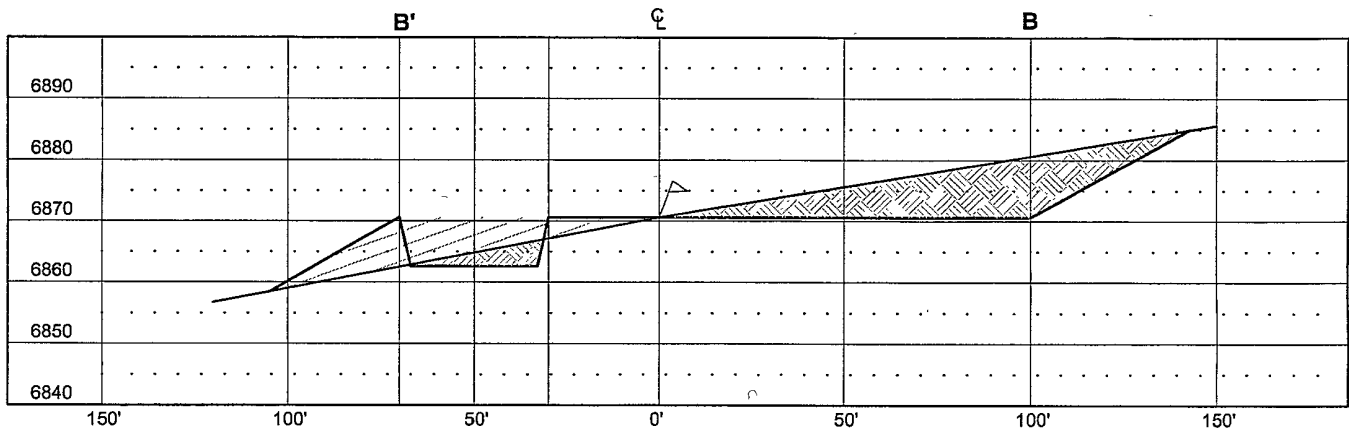
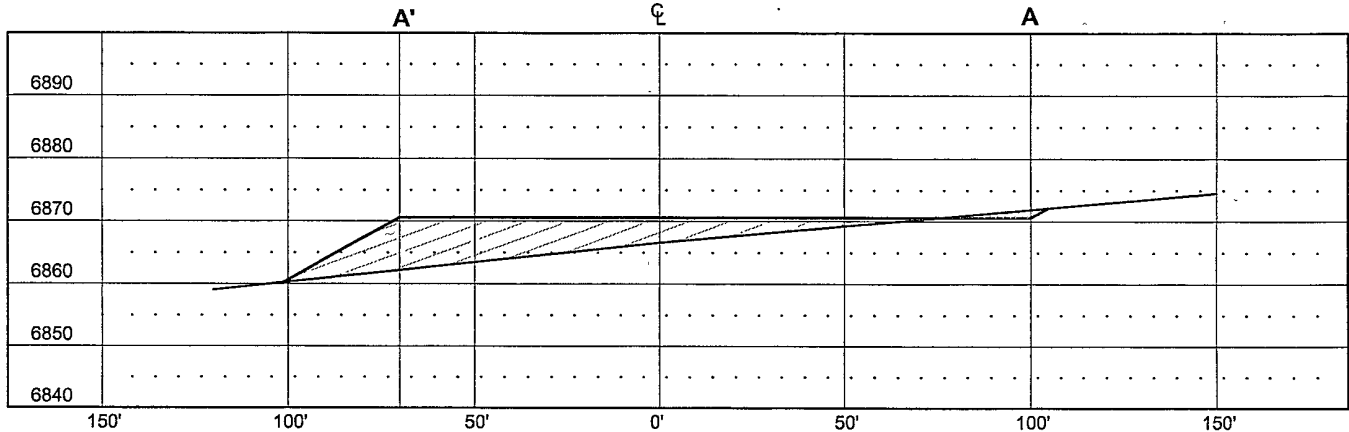


585 LF OF NEW ACCESS
TO EXISTING DIRT ROAD

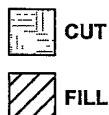
1 FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: ERE016
DATE: 06/14/07

RXS Russell Surveying
1409 W. Aztec Blvd. #2
Aztec, New Mexico 87410
(505) 334-8637

ELM RIDGE EXPLORATION, LLC
MARCUS B #2
1735' FNL & 2175' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 5,
T23N, R6W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
GROUND ELEVATION: 6871', NAVD 88
FINISHED PAD ELEVATION: 6870.6', NAVD 88



VERT. SCALE: 1" = 30'
 HORZ. SCALE: 1" = 50'
 JOB No.: ERE016
 DATE: 06/14/07

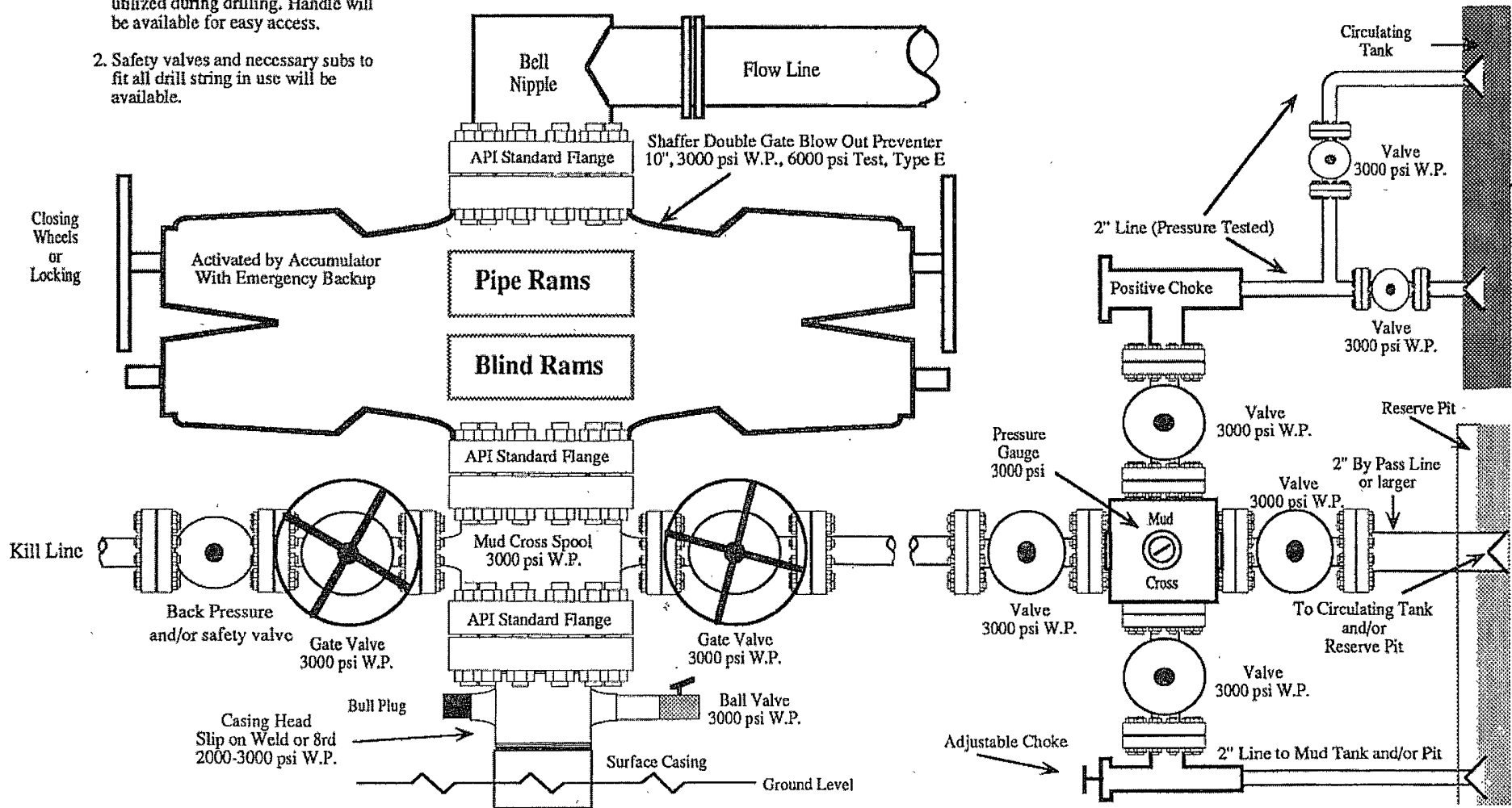


Russell Surveying
 1409 W. Aztec Blvd. #2
 Aztec, New Mexico 87410
 (505) 334-8637

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.