

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

2. Name of Operator
ELM RIDGE RESOURCES, INC.

3a. Address **P. O. BOX 189
FARMINGTON, NM 87499**

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 **1390' FNL & 1275' FWL**
At proposed prod. zone **SAME**

14. Distance in miles and direction from nearest town or post office*
6 AIR MILES NORTHEAST OF COUNSELORS

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) **3,890'**

16. No. of Acres in lease
2,560

17. Spacing Unit dedicated to this well *WC Basin Manges 160*
~~OTERO GALLUP: SWNW = 40 ACRES~~
BASIN DAKOTA: N2 = 320 ACRES N2

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. **178'**

19. Proposed Depth
6,900'

20. BLM/BIA Bond No. on file
#886441C (BIA - NATION WIDE)

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6,695' GL

22. Approximate date work will start*
UPON APPROVAL

23. Estimated duration
4 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.
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.

Comments

The only other well in the quarter-quarter is an Elm Ridge PC well.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO 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

cc: BIA, BLM (&OCD), Elm (D & F), Nation

25. Signature *Brian Wood* Name (Printed/Typed) **BRIAN WOOD** Date **8-7-03**

Title **CONSULTANT** PHONE: 505 466-8120 FAX: 505 466-9682

Approved by (Signature) *Jim Lovato* Name (Printed/Typed) Date **3/9/05**

Title *Acting Field Manager - Minerals* Office

Application approval does not warrant or certify 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.

State of New Mexico
 Encl. gy. 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

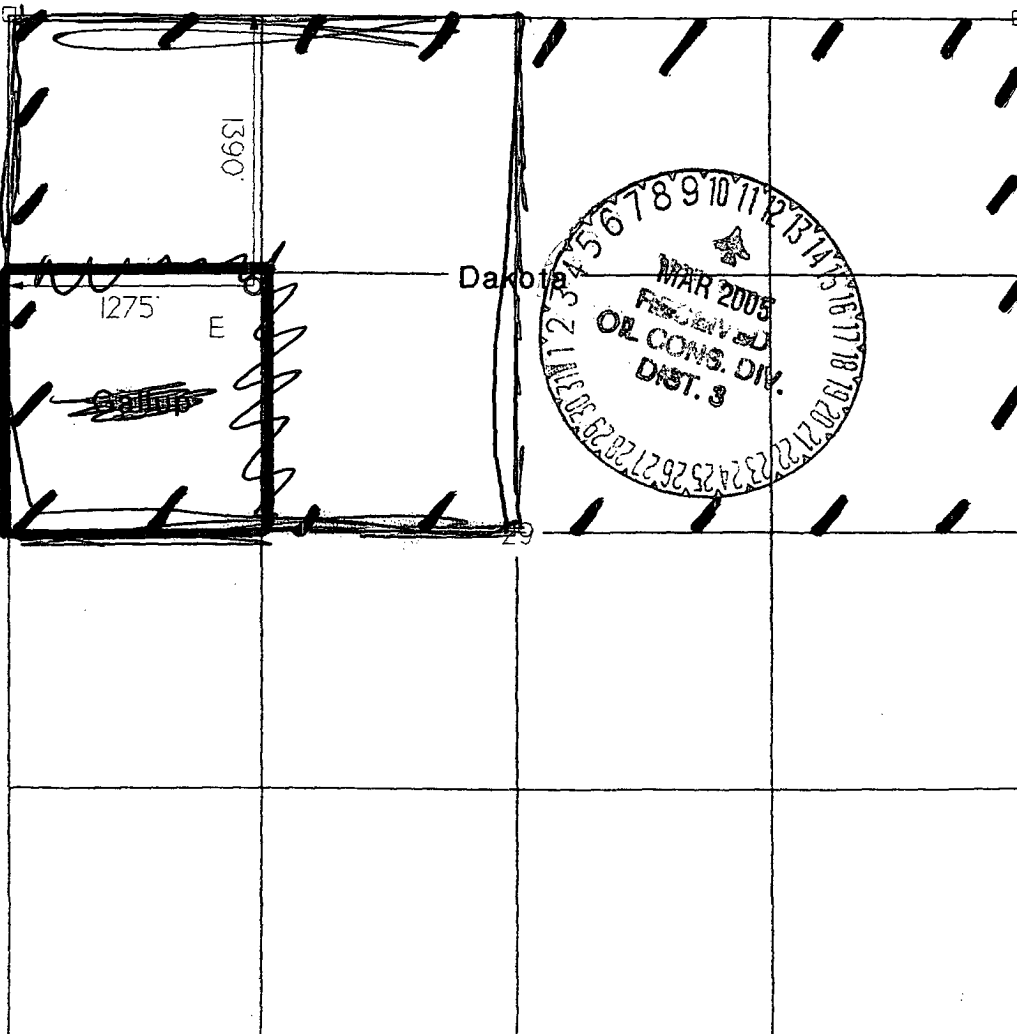
APA Number 30039-29287	Pool Code 97232 48450 & 71599	Pool Name WC Basin Mancos OTERO GALLUP & BASIN DAKOTA
Property Code 19026	Property Name Jicarilla Apache B	Well Number 18E
OGRID No. 149052	Operator Name ELM RIDGE RESOURCES	Elevation 6695'

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Lth.	Feet from	North/South	Feet from	East/West	County
E	29	24 N.	5 W.		1390'	NORTH	1275'	WEST	RIO ARriba

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

Dedication 160 & 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



OPERATOR CERTIFICATION
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature *Brian Wood*

Printed Name **BRIAN WOOD**

Title **CONSULTANT**

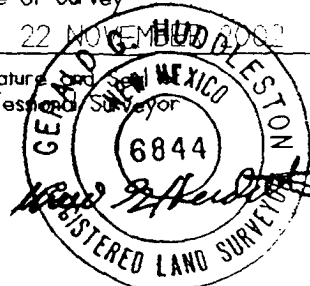
Date **AUGUST 7, 2003**

SURVEYOR CERTIFICATION

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 **22 NOVEMBER 2002**

Signature *C. Huddleston*
 Professional Surveyor



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
Department of Geology, Minerals and Natural Resources

Form C-103
May 27, 2004

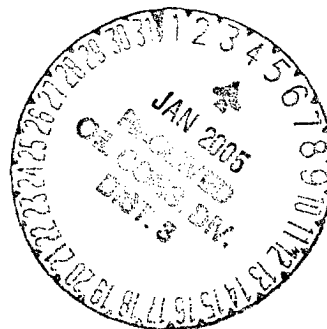
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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.)		WELL API NO. 30-039-
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator ELM RIDGE RESOURCES, INC.		6. State Oil & Gas Lease No. BIA # 11
3. Address of Operator P.O. BOX 156, BLOOMFIELD, NM 87413		7. Lease Name or Unit Agreement Name JICARILLA APACHE B
4. Well Location Unit Letter E : 1390 feet from the NORTH line and 1275 feet from the WEST line Section 29 Township 24N Range 5W NMPM County RIO ARRIBA		8. Well Number 18E
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6,695' GL		9. OGRID Number 149052
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat OTERO GALLUP & BASIN DAKOTA
Pit type Reserve Depth to Groundwater ~430' Distance from nearest fresh water well ~1.4mi Distance from nearest surface water ~440'		
Pit Liner Thickness: 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:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: RESERVE PIT <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.



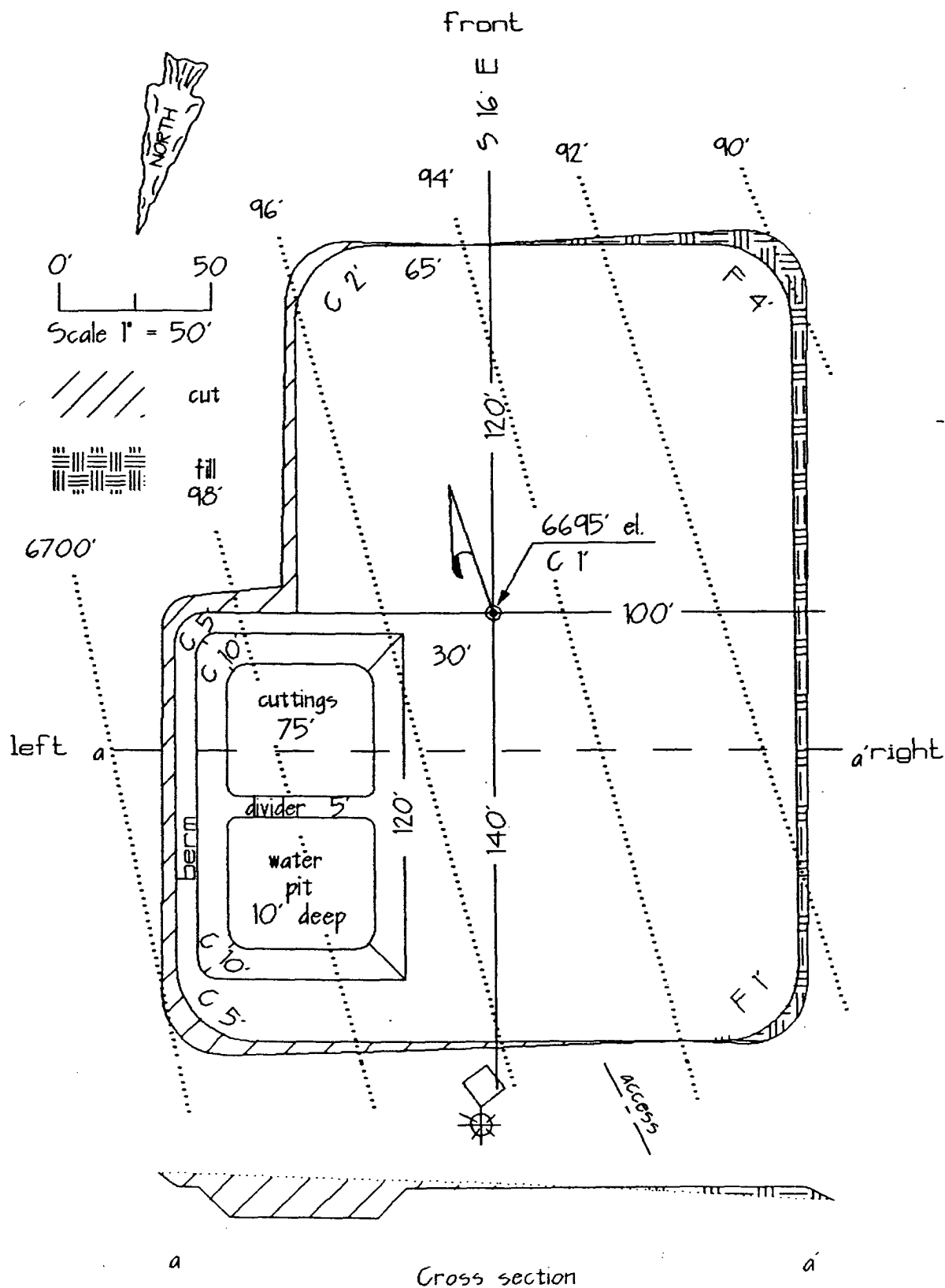
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Craig M. Fiehler TITLE Biologist DATE 12/30/04

Type or print name Craig M. Fiehler E-mail address: craig@permitswest.com Telephone No. 505-466-81
For State Use Only

APPROVED Original Signed By DENNY G FOUST TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 82 DATE JAN - 4 2004
Conditions of Approval (if any):

Jicarilla Apache B # 18 E
well pad & section



Elm Ridge Resources, Inc.
Jicarilla Apache B 18 E
1390' FNL & 1275' FWL
Sec. 29, T. 24 N., R. 5 W.
Rio Arriba County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	000'	12'	+6,695'
Kirtland-Fruitland	1,995'	2,007'	+4,700'
Pictured Cliffs Ss	2,280'	2,292'	+4,415'
Lewis Shale	2,385'	2,397'	+4,310'
Pt. Lookout Ss	4,440'	4,452'	+2,255'
Mancos Shale	4,555'	4,567'	+2,140'
Gallup Ss	5,520'	5,532'	+1,175'
Greenhorn	6,445'	6,457'	+250'
Dakota	6,670'	6,682'	+25'
Total Depth (TD)*	6,900'	6,912'	-205'

* all elevations reflect the ungraded ground level of 6,695'

2. NOTABLE ZONES

Oil & Gas Zones

Ojo Alamo
Pictured Cliffs
Gallup
Dakota

Water Zones

San Jose
Ojo Alamo

Coal Zones

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.

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Jicarilla Apache B 18 E
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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 3,000 psi model is on PAGE 3. A $\geq 3,000$ 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.

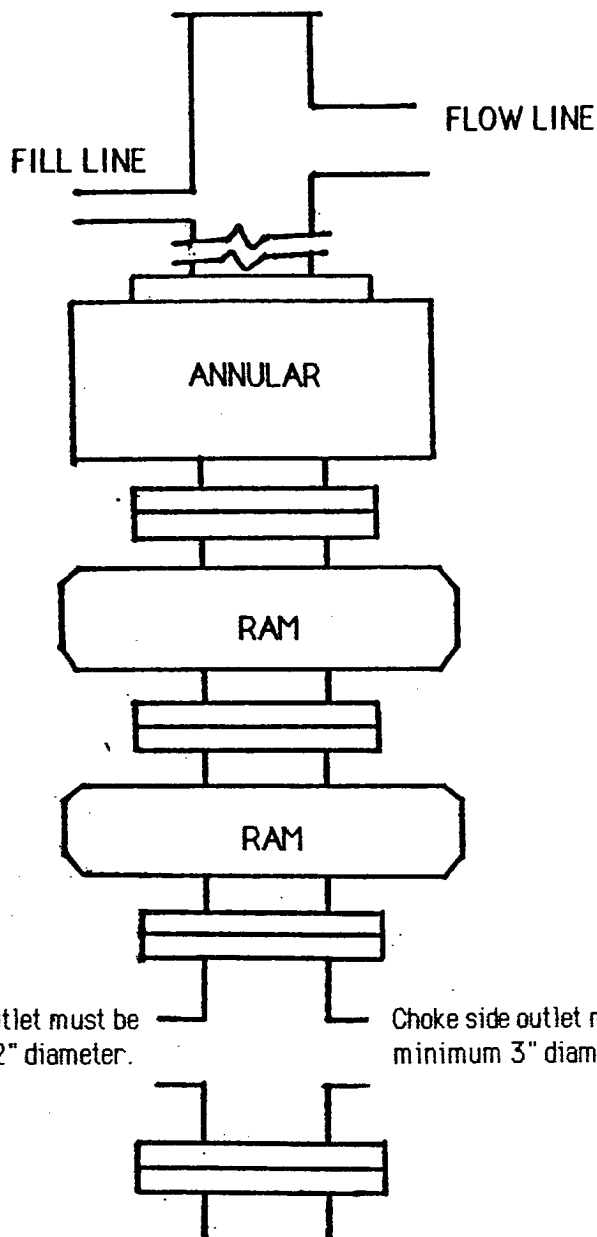
All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	24	K-55	S T & C	New	350'
7-7/8"	4-1/2"	10.5	J-55	L T & C	New	6,900'

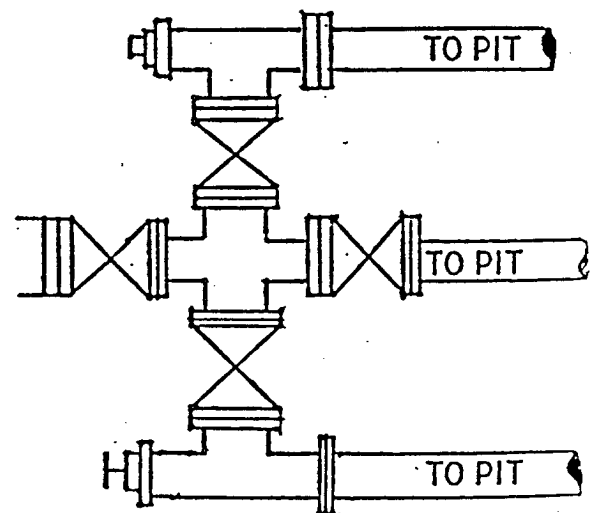
Surface casing will be cemented to the surface with ≈ 290 cubic feet (≈ 246 sacks) Class B with 1/4#/sk Flocele + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

Production casing will be cemented to surface in 2 stages. Set stage tool @ $\approx 4,750'$. Volume $\geq 75\%$ excess, but caliper log will be used to determine actual volume needed. Centralizers will be installed on middle of the shoe joint and on every joint thereafter (total of ≈ 30 centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.



TYPICAL BOP STACK
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.
Safety valve and subs will fit all drill string connections in use.
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

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Jicarilla Apache B 18 E
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First stage volume will be $\approx 1,337$ cubic feet. First stage will consist of ≈ 330 sacks Halliburton Lite with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl_2 (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by ≈ 610 sacks Class B + 2% CaCl_2 (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

Second stage volume will be $\approx 2,004$ cubic feet. Second stage will consist of $\approx 1,040$ sacks of Halliburton Lite with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl_2 (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by ≈ 50 sacks Class B + 2% CaCl_2 (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon)..

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

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available 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. CORING, TESTING, & LOGGING

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 10' from $\approx 4,000'$ to TD. Samples will be collected every 30' elsewhere.