

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

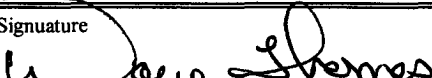
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF-079483A
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" 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
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87402	3b. Phone No. (include area code) (505)325-6800	8. Lease Name and Well No. Carson 200
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 735' FNL, 1275' FEL At proposed prod. zone		9. API Well No. 30039 27486
14. Distance in miles and direction from nearest town or post office* 10 miles Northeast of Gobernador, New Mexico		10. Field and Pool, or Exploratory Basin Fruitland Coal
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 735'		11. Sec., T., R., M., or Blk. and Survey or Area A Sec. 7, T30N, R4W, N.M.P.M.
16. No. of Acres in lease		12. County or Parish Rio Arriba
17. Spacing Unit dedicated to this well 269.01 <del>ER</del> N2		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 5800'		19. Proposed Depth 4010'
20. BLM/BIA Bond No. on file		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7230' GL
22. Approximate date work will start* July 2004		23. Estimated duration 6 Days

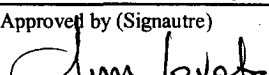
24. Attachments

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) Doug Thomas	Date 08/7/03
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Title  
Drilling & Completion Foreman

Approved by (Signature) 	Name (Printed/Typed)	Date 3/9/05
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Title  
Acting Field Manager - Minerals

Office

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 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".

RECEIVED  
AUG 15 PM 12:08  
Farmington, NM

NMOC

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

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.

2004 JAN 29 AM 11:00

070 Farmington, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

ENERGEN RESOURCES CORPORATION

3a. Address

2198 Bloomfield Highway, Farmington, NM 87401

3b. Phone No. (include area code)

505 425 6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

735' FNL, 1275' FEL, Sec.07, T30N, R04W, N.M.P.M.

5. Lease Serial No.

NMSF 079483 A

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Carson 200

9. API Well No.

3003927486

10. Field and Pool, or Exploratory Area  
Basin Fruitland Coal

11. County or Parish, State

Rio Arriba NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" 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 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 type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. 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 final site is ready for final inspection.)

This well has been changed to N 1/2 dedication.

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

Doug Thomas

Title

Drilling & Completion Foreman

Date

01/27/04

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Office

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.

Acting Field Manager  
Minerals

3/9/05

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer 80, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102

Revised February 21, 1994

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-039-27486</b>		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code <b>21185</b>	*Property Name CARSON		*Well Number 200
*OGRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 7230'

<sup>10</sup> Surface Location

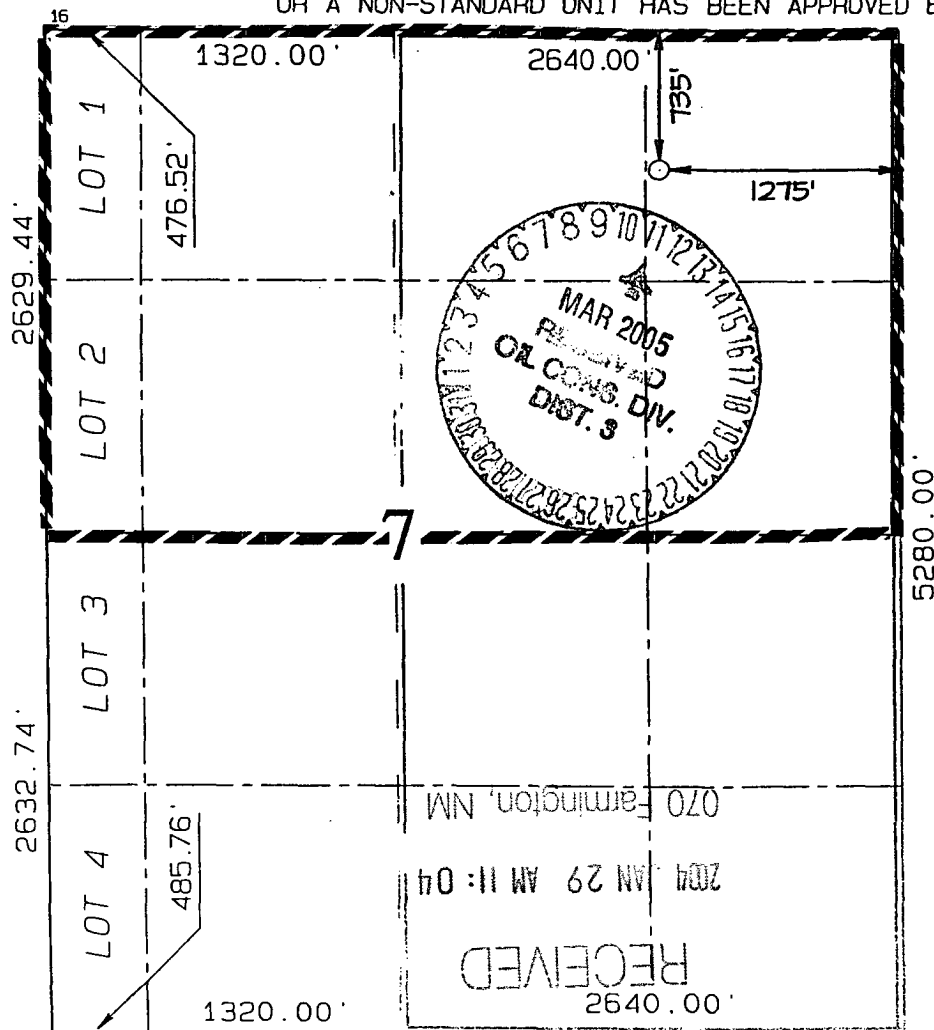
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	7	30N	4W		735	NORTH	1275	EAST	RIO ARriba

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres <b>269.01</b> <del>320.0</del> Acres - E/2	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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



<sup>17</sup> OPERATOR CERTIFICATION

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

*Don Graham*  
Signature

Don Graham

Printed Name

Production Superintendant

Title

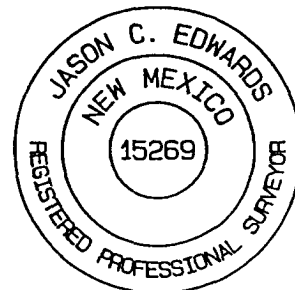
**8-1-03**  
Date

<sup>18</sup> 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.

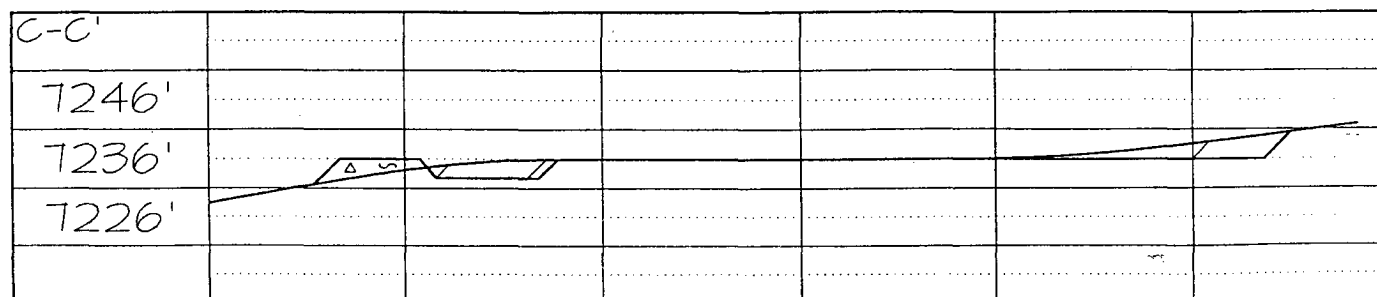
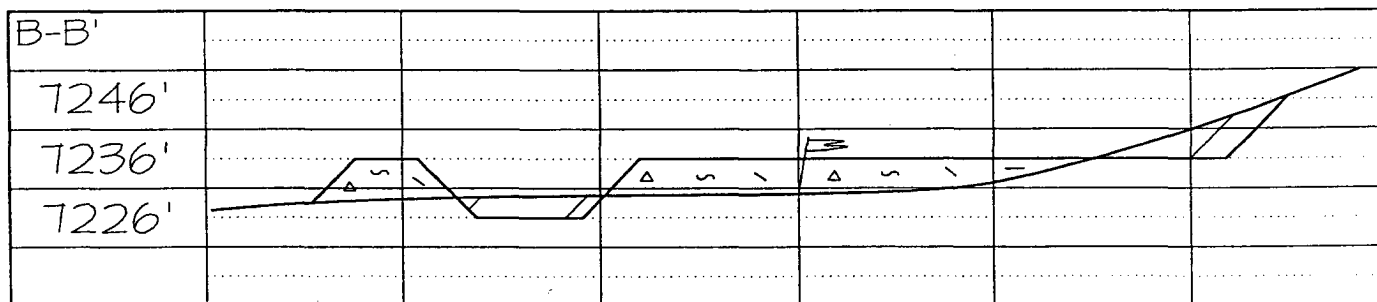
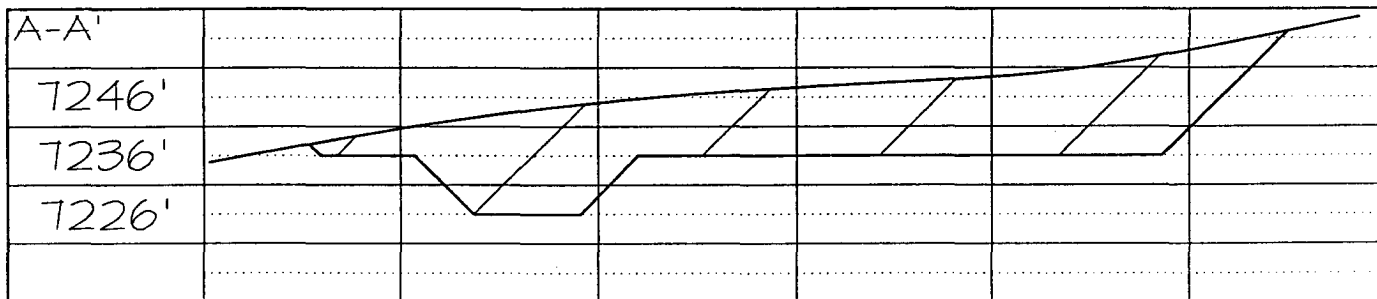
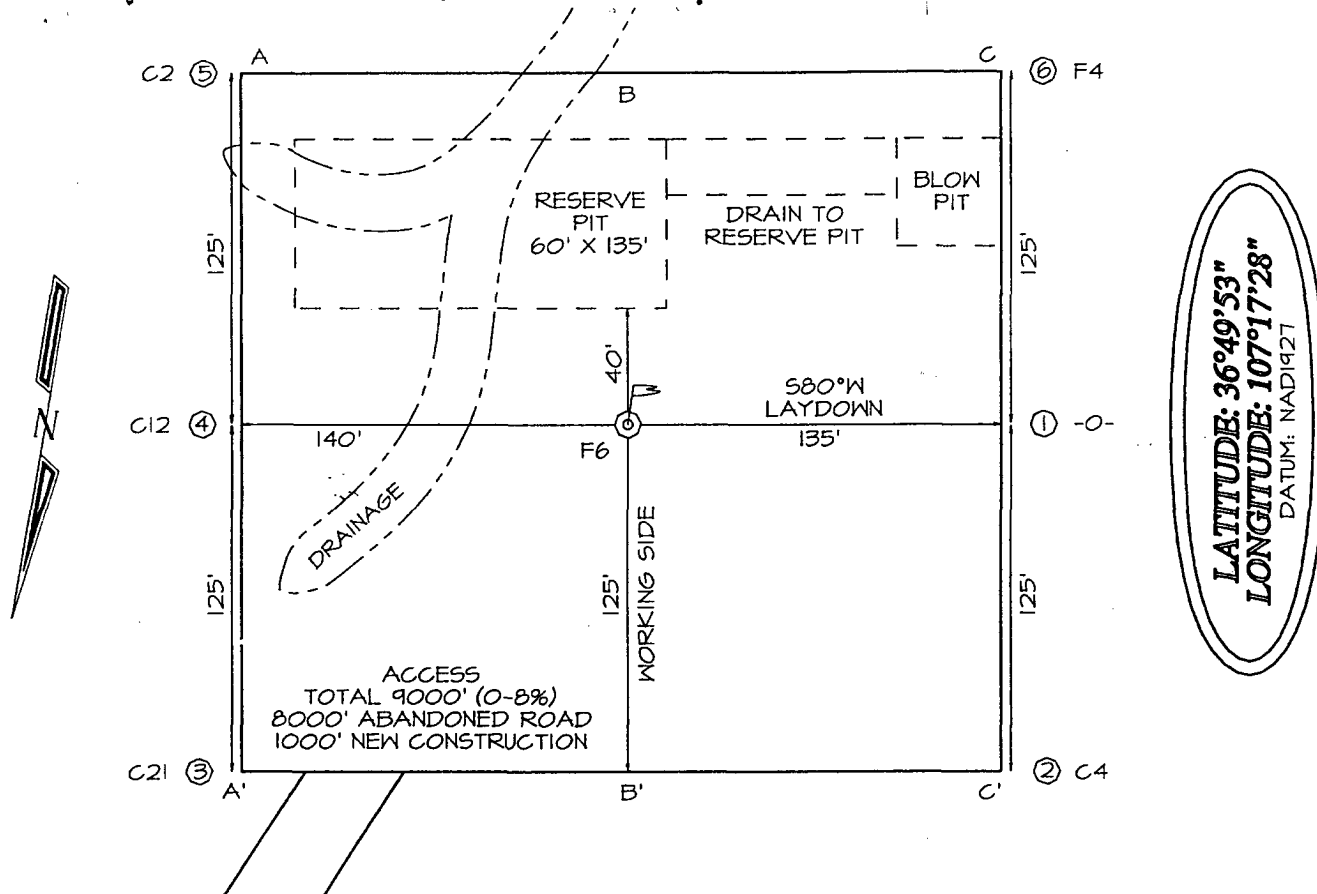
Survey Date: NOVEMBER 25, 2002

Signature and Seal of Professional Surveyor



**JASON C. EDWARDS**  
Certificate Number 15269

**ENERGEN RESOURCES CORPORATION CARSON #200**  
**735' FNL & 1275' FEL, SECTION 7, T30N, R4W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO. GROUND ELEVATION: 7230'**



## OPERATIONS PLAN

WELL NAME: Carson #200

LOCATION: 735' FNL, 1275' FEL, Section 7, T30N, R4W, Rio Arriba County, NM

FIELD: Basin Fruitland Coal

ELEVATION: 7230' GL

### FORMATION TOPS:

San Jose	Surface
Nacimiento	2060
Ojo Alamo	3360
Kirtland	3560
Fruitland	3830

**Total Depth            4010**

### LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate- None

Inter TD to total depth: None

Mud Logs:                Intermediate to total depth

Coring:                  None

Natural Gauges:        Every 500' from intermediate TD to total depth

MUD PROGRAM: Fresh water low solids mud from surface to intermediate TD (9.0 PPG).  
Air/mist from intermediate casing point to total depth.

### CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT.</u>	<u>GRADE</u>
12 1/4"	200'	9 5/8"	32.3#	H-40 – ST&C
8 3/4"	3890'	7"	23#	J-55 – ST&C
6 1/4"	3790'- 4010'	5 1/2"	15.5#	J-55 – LT&C

### TUBING PROGRAM:

3950'	2 3/8"	4.7#	J-55
-------	--------	------	------

WELLHEAD: 11" 3000 x 9 5/8" casing head. 11" 3000 x 7 1/16" 3000 xmas tree.

### BOP SPECIFICATIONS:

An 11" 2000 psi minimum double gate BOP stack (Figure 1) will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will be used. An upper Kelly Cock valve with handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

CEMENTING:

9 5/8" surface casing - cement with 110 sks Class B Cement with 1/4" flocele/sk and 2% calcium chloride (130 cu. ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600# for 30 minutes.

Texas Pattern Guide Shoe on bottom. 3 bow type centralizers spaced throughout the string.

7" intermediate casing - cement with 495 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 100 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (1110 cu. ft. of slurry, 90% excess to circulate to surface). WOC 12 hrs. If cement does not circulate, run temperature survey in 8 hrs. to determine TOC. Test casing to 1200 psi for 30 minutes.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 10 bow spring centralizers spaced every 2nd joint off bottom. Two turbolating centralizers at the base of the Ojo Alamo.

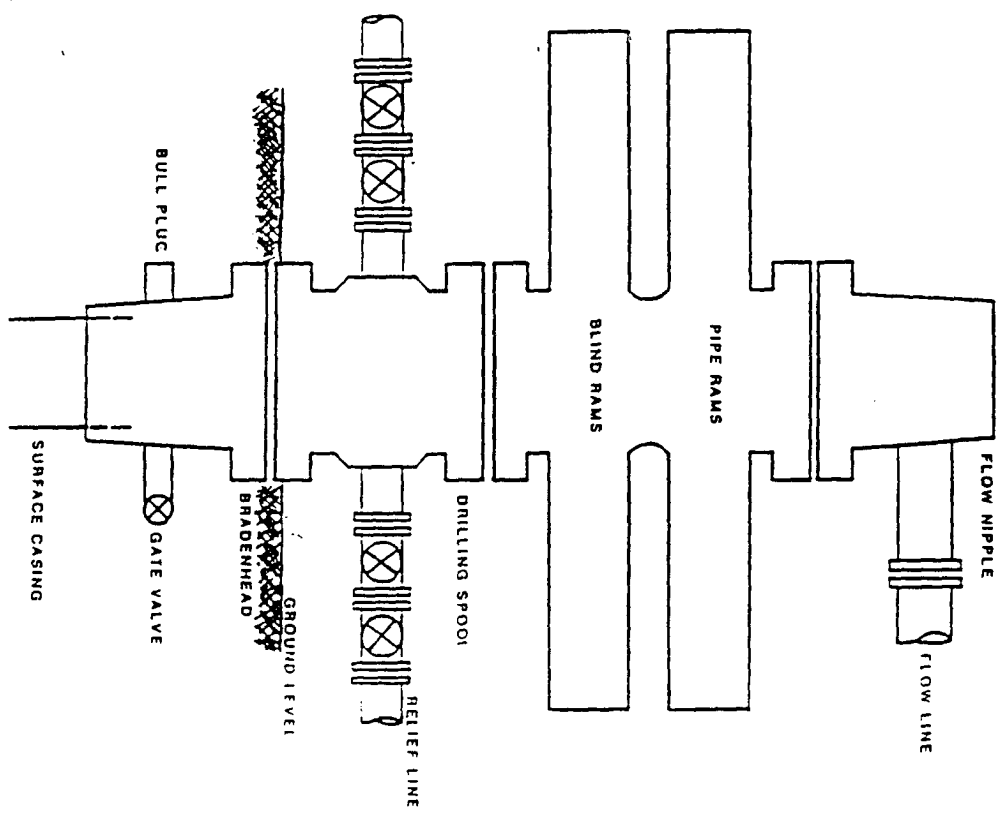
5 1/2" liner - NO CEMENT

OTHER INFORMATION:

- 1) The Basin Fruitland Coal will be completed.
- 2) No abnormal temperatures or pressures are anticipated.
- 3) If lost circulation is encountered sufficient LCM will be added to the mud system to maintain well control.
- 4) This gas is dedicated.
- 5) Anticipated pore pressure for the Fruitland is 1000 psi.

# Figure #1

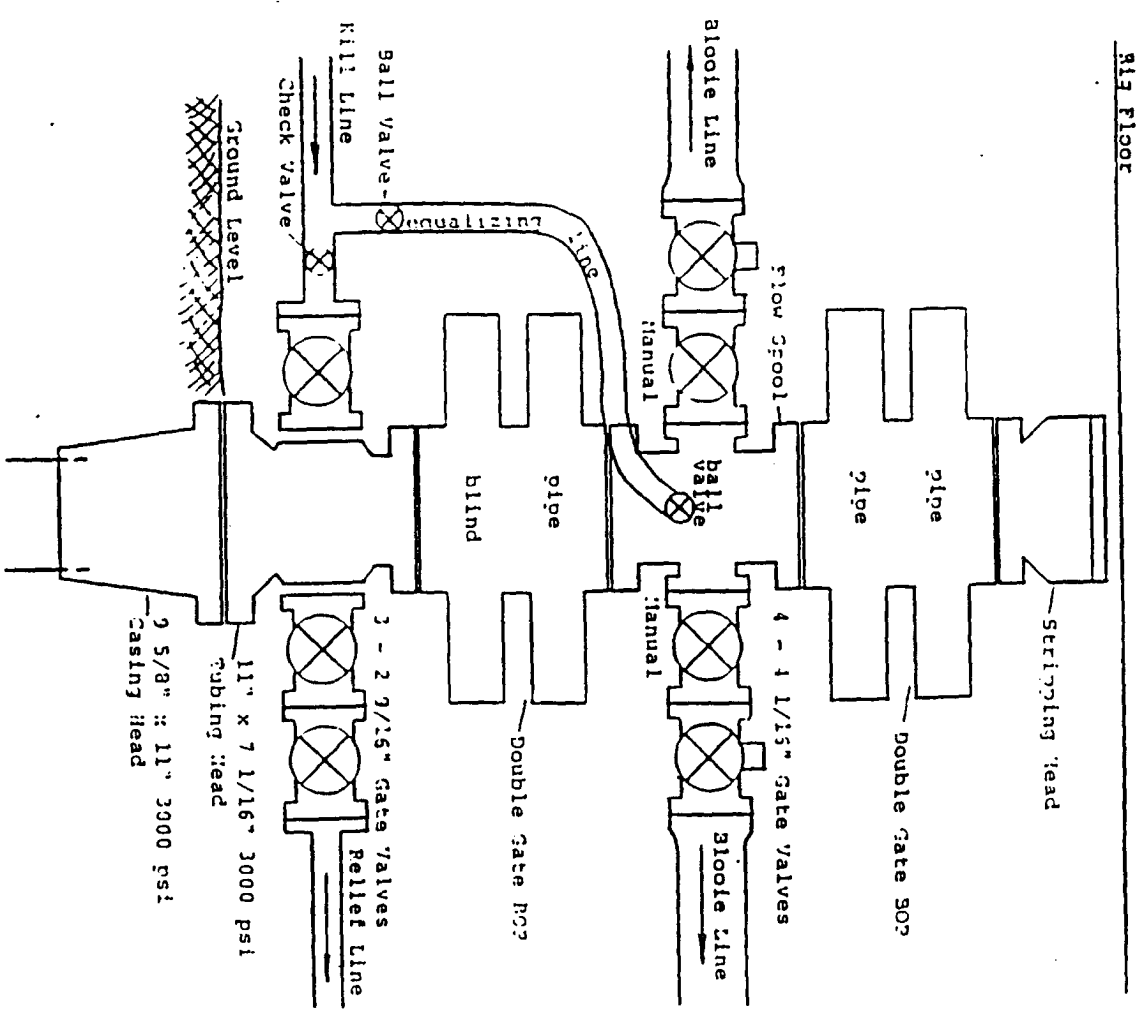
TYPICAL B.O.P.E. INSTALLATION  
FOR A FRUITLAND COAL WELL  
(to intermediate TD)



Series 900 double gate BOP  
Rated at 3000 psi working pressure

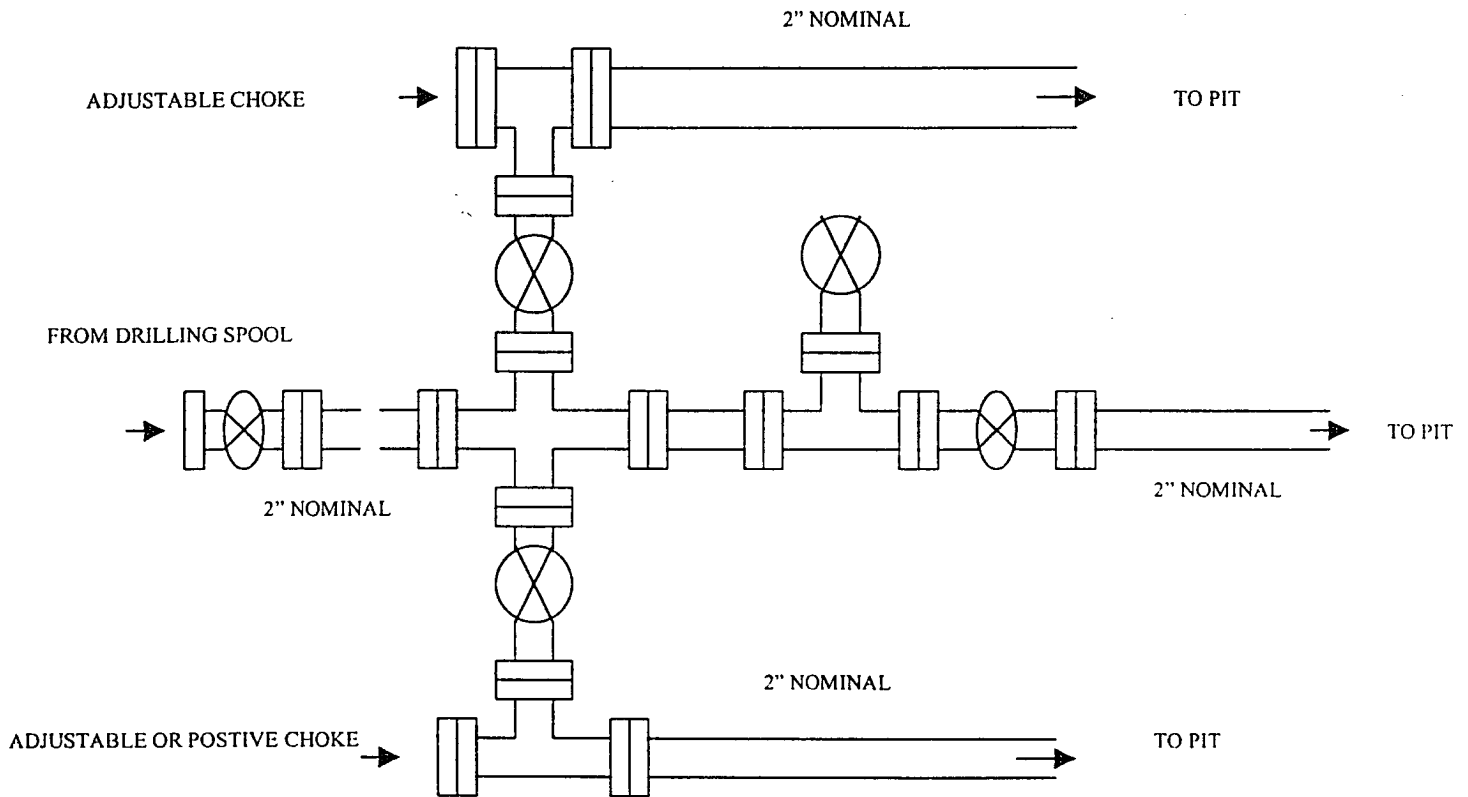
# Figure #2

FRUITLAND COAL WELL  
TYPICAL BOP CONFIGURATION  
7 1/16" 3000 psi (minimum) BOP STACK  
(from intermediate to total depth)



# ENERGEN RESOURCES CORPORATION

## Choke Manifold Configuration 2M psi System



Minimum choke manifold installation from surface to Total Depth.  
2" minimum, 2000 psi working pressure equipment with two chokes.