

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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 078132
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Energen Resources Corporation 162928		7. Unit or CA Agreement Name and No.
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401		8. Lease Name and Well No. 300442 Federal 29-9-12 #1S
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30-045-33407
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 575' fnl, 525' fwl At proposed prod. zone		10. Field and Pool, or Exploratory Basin Fruitland Coal 71629
14. Distance in miles and direction from nearest town or post office* Approximately 5.0 miles east of Blanco		11. Sec., T., R., M., or Blk. and Survey or Area D S12, T29N, R09W
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 525'	16. No. of Acres in lease 2372.88	12. County or Parish San Juan
17. Spacing Unit dedicated to this well 320 W 1/2	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1000'	13. State NM
19. Proposed Depth 3124'	20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 6307'	22. Approximate date work will start* 02/15/06	23. Estimated duration 14 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 <i>Nathan Smith</i>	Name (Printed/Typed) Nathan Smith	Date 11/01/05
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Title  
Drilling Engineer

Approved by (Signature) <i>Jim Lovel</i>	Name (Printed/Typed)	Date 2/8/06
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Title Acting AD	Office
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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.

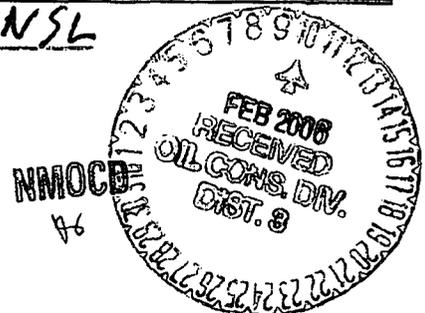
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

HOLD OVER FOR NSL

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



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1720 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fec Lease - 3 Copies  
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number <b>30-045-33407</b>		2 Pool Code <b>71629</b>		3 Pool Name <b>Basin Fruitland Coal</b>	
4 Property Code <b>300442</b>		5 Property Name <b>FEDERAL 29-9-12</b>			6 Well Number <b>IS</b>
7 OGRID No. <b>162928</b>		8 Operator Name <b>ENERGEN RESOURCES CORPORATION</b>			9 Elevation <b>6307'</b>

10 Surface Location

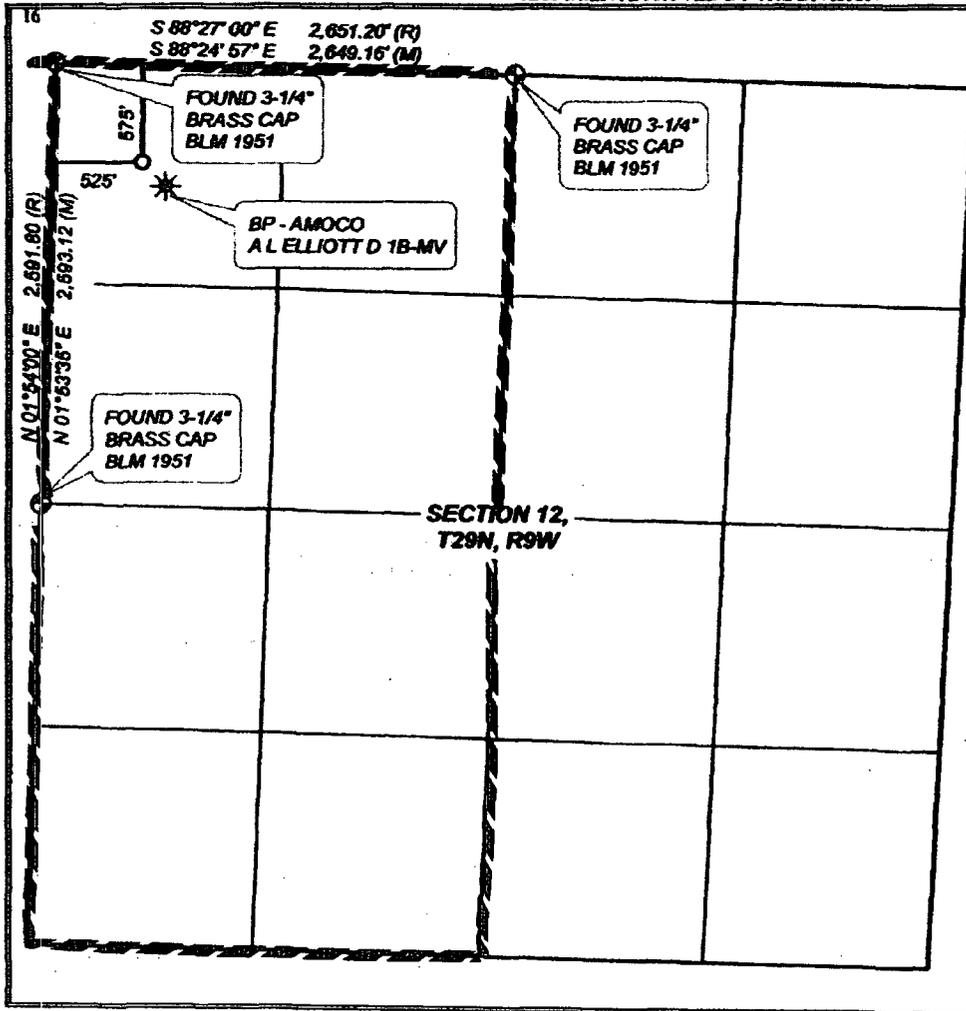
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>D</b>	<b>12</b>	<b>29N</b>	<b>9W</b>		<b>575</b>	<b>NORTH</b>	<b>525</b>	<b>WEST</b>	<b>SAN JUAN</b>

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    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



17 OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  
*Nathan Smith*  
Signature  
**Nathan Smith**  
Printed Name  
**Drilling Engineer**  
Title and E-mail Address  
**11/1/05**  
Date

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.  
**9-26-05**  
Date of Survey  
*DAVID R. JOHNSON*  
Signature of Registered Professional Surveyor  
**14827**  
REGISTERED PROFESSIONAL SURVEYOR  
NEW MEXICO  
Certificate Number

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 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 ID NO. 30-045-33407

**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 <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 <u>Energen Resources Corporation</u>	6. State Oil & Gas Lease No.
3. Address of Operator <u>2198 Bloomfield Highway, Farmington, NM 87401</u>	7. Lease Name or Unit Agreement Name: <u>Federal 29-9-12</u>
4. Well Location Unit Letter <u>D</u> : <u>575'</u> feet from the <u>North</u> line and <u>525'</u> feet from the <u>West</u> line Section <u>12</u> Township <u>29N</u> Range <u>09W</u> NMPM County <u>San Juan</u>	8. Well Number <u>#1S</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>6307' GL</u>	9. OGRID Number <u>162928</u>
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/> Pit type <u>Drill</u> Depth to Groundwater <u>&gt;100'</u> Distance from nearest fresh water well <u>&gt;1000'</u> Distance from nearest surface water <u>&gt;250'</u> Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume _____ bbls; Construction Material _____	10. Pool name or Wildcat <u>Fruitland Coal</u>

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
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"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <u>Build drilling pit</u> <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.

Energen Resources plans to build a lined pit according to "OCD Pit and Below-grade Tank Guidelines", as issued on November 1, 2004. Energen anticipates the submittal of a C-144 for closure of this pit in accordance with BLM and "OCD Pit and Below-grade Tank Guidelines".

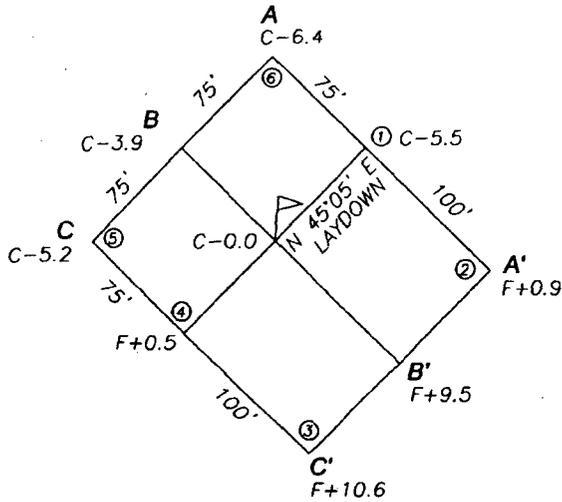
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines  , a general permit  or an (attached) alternative OCD-approved plan

SIGNATURE Nathan Smith TITLE Drilling Engineer DATE 10/27/05  
 E-mail address: nsmith@energen.com  
 Telephone No. 505.325.6800

For State Use Only  
 APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE FEB 10 2006  
 Conditions of Approval, if any:

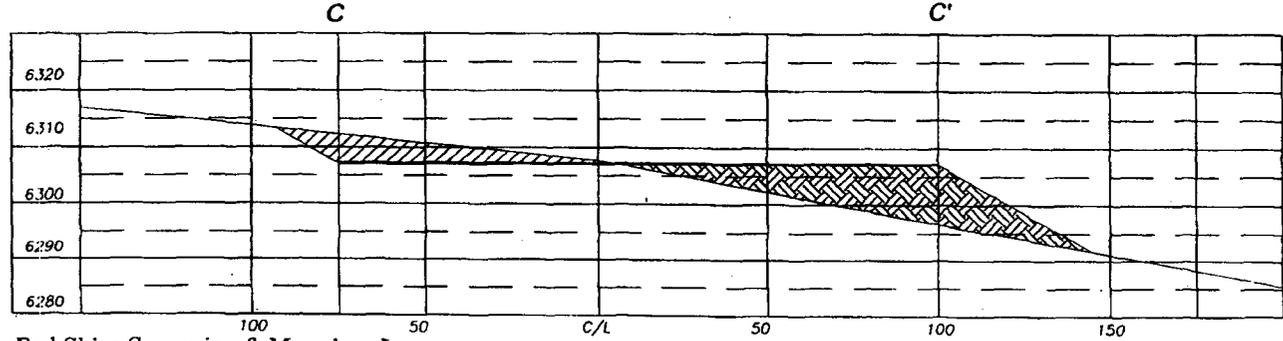
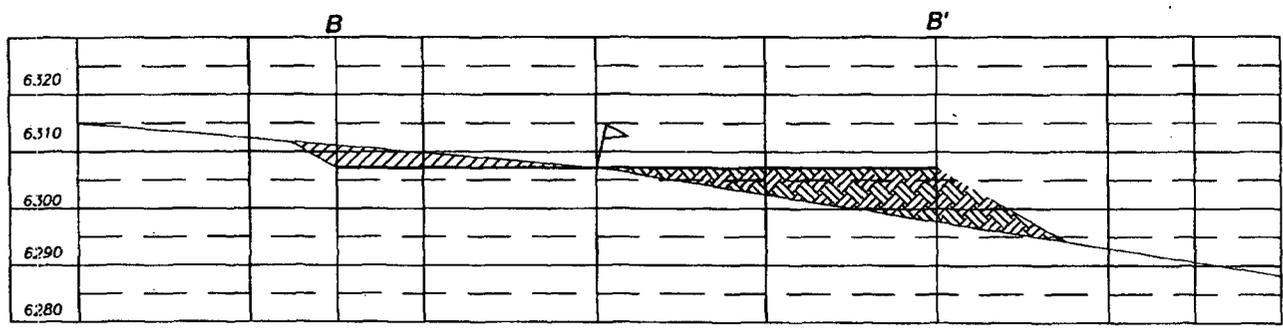
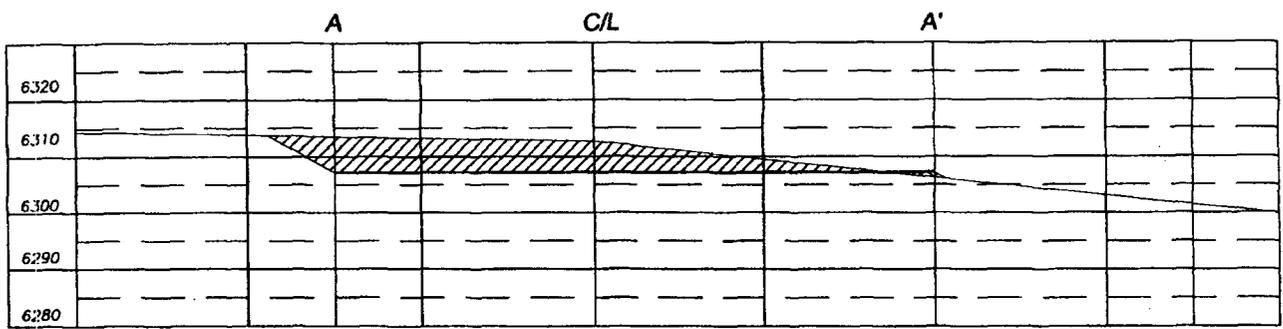
**ENERGEN RESOURCES CORPORATION**

FEDERAL 29-9-12 #1S  
 575' FNL, 525' FWL  
 LOCATED NW/4 NW/4 OF SECTION 12  
 T29N, R9W, N.M.P.M.,  
 SAN JUAN COUNTY, NEW MEXICO  
 ELEVATION: 6307' NAVD 88



LATITUDE: 36°44'42" N  
 LONGITUDE: 107°44'14" W  
 DATUM: NAD83

**NOTE TO OPERATOR:**  
 THIS LOCATION STAKED AT NON-STANDARD  
 SPACING DUE TO TOPOGRAPHY



**Red Skies Surveying & Mapping, Inc.,**  
 101 Fauver Lane  
 Bloomfield, New Mexico 87413  
 Phone/Fax: (505) 632-8906  
 Cell No: (505) 793-5325

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 JNAKAI 09/02/05

## Operations Plan

October 20, 2005

### Federal 29-9-12 #1S

#### General Information

Location	575' fnl, 525' fwl nwnw S12, T29N, R09W San Juan County, New Mexico
Elevations	6307' GL
Total Depth	3124' (MD)
Formation Objective	Basin Fruitland Coal

#### Formation Tops

San Jose	Surface
Ojo Alamo Ss	454'
Kirtland Sh	1804'
Fruitland Fm	1939'
Top Coal	2589'
Bottom Coal	2714'
Pictured Cliffs Ss	2924'
Total Depth	3124'

#### Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 7 7/8" wellbore will be drilled with a low solids fresh water/polymer mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.3 ppg to 8.9 ppg.

##### Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack (figure 1) will be used following nipple up of casing head. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

##### Logging Program:

Open hole logs: Induction/Gamma Ray and Density Logs

Coring: None

Surveys: Surface and/or every 500 ft to TD.

## Tubulars

### Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-300'	12 1/4"	8 5/8"	24.0 ppf	J-55 ST&C
Production	300'-3124'	7 7/8"	5 1/2"	15.5 ppf	J-55 LT&C
Tubing	0'-3080'		2 3/8"	4.7 ppf	J-55

### Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Production Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

## Wellhead

8 5/8" 2000 x 5 1/2" Larkin casing head. 5 1/2" 2000 x 2" tubing head.

## Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl<sub>2</sub> and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 266 ft<sup>3</sup> of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

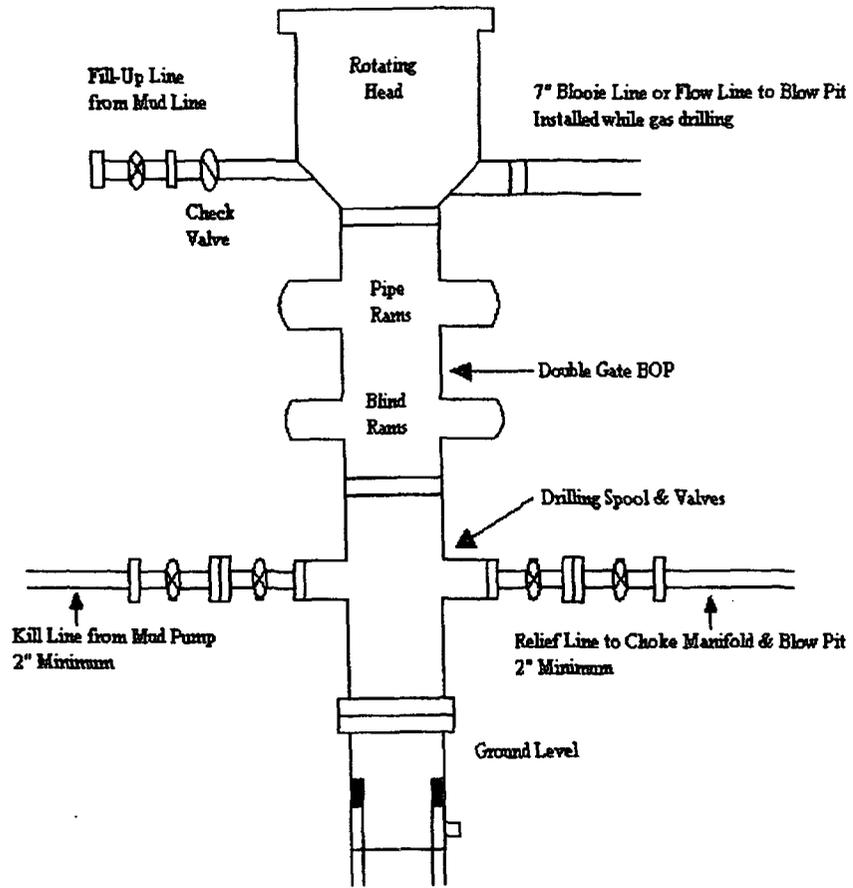
Production Casing: Before cementing, circulate hole at least 1 1/2 hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 465 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.96 ft<sup>3</sup>/sk) and a tail of 145 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (15.2ppg, 1.24 ft<sup>3</sup>/sk). (1090 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface).

## Other Information

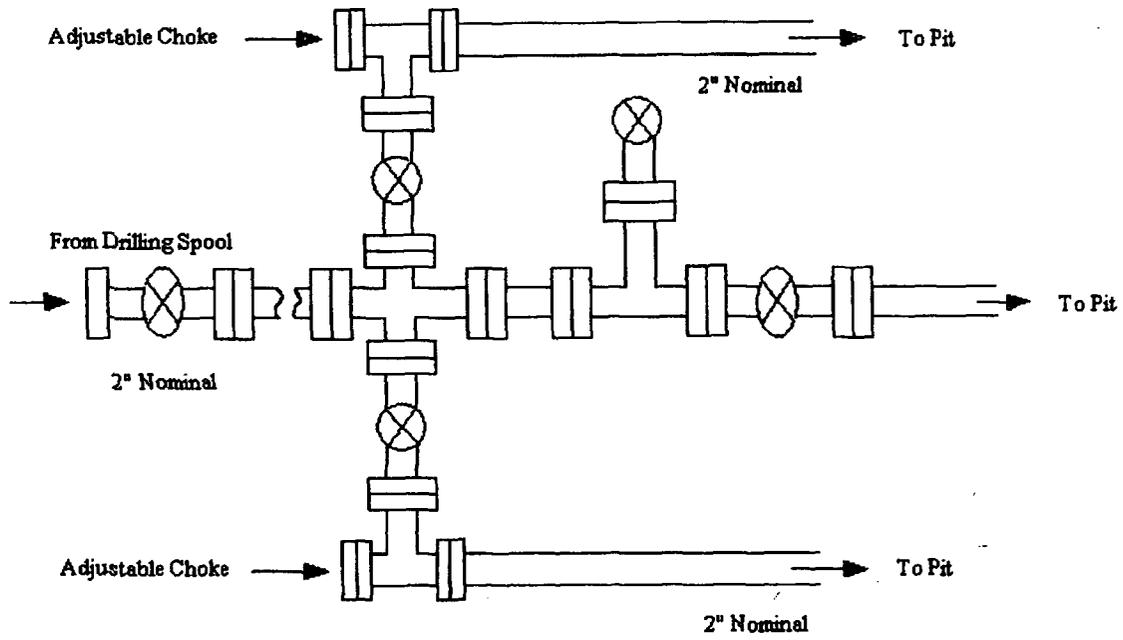
- 1) This well will be cased and the Basin Fruitland Coal fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

# Energen Resources Corporation

## Typical BOP Configuration for Gas Drilling



**Energen Resources Corporation**  
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD