

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. <b>NM 0607</b>
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 type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name <b>45</b>
2. Name of Operator <b>Energen Resources Corporation</b>		7. Unit or CA Agreement Name and No.
3a. Address <b>2198 Bloomfield Highway Farmington, New Mexico 87401</b>		8. Lease Name and Well No. <b>Atlantic C #200S</b>
3b. Phone No. (include area code) <b>(505) 325-6800</b>		9. API Well No. <b>30-045-32824</b>
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface <b>1800' fsl, 1880' fel</b> At proposed prod. zone		10. Field and Pool, or Exploratory <b>Basin Fruitland Coal</b>
14. Distance in miles and direction from nearest town or post office* <b>Approximately 8.5 miles east of Aztec</b>		11. Sec., T., R., M., or Blk. and Survey or Area <b>J S35, T31N, R10W</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) <b>1800'</b>	16. No. of Acres in lease <b>2394.72</b>	12. County or Parish <b>San Juan</b>
17. Spacing Unit dedicated to this well <b>320 E 1/2</b>	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>Approx. 500'</b>	13. State <b>NM</b>
19. Proposed Depth <b>3390'+/-</b>	20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>GL 6473'</b>	22. Approximate date work will start* <b>010/15/05</b>	23. Estimated duration <b>14 days</b>

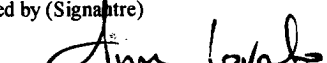
24. Attachments

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) <b>Nathan Smith</b>	Date <b>9/13/05</b>
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Title  
**Drilling Engineer**

Approved by (Signature) 	Name (Printed/Typed)	Date <b>12/9/05</b>
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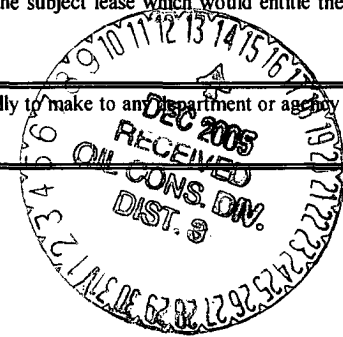
Title  
**Adam AFM**

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 page 2)



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

NMOCD

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  
1220 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  
Fee Lease - 3 Copies  
AMENDED REPORT

2005 SEP 13 PM 2 45

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-32824	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name 070 FARMINGTON UP FRUITLAND COAL
<sup>4</sup> Property Code 21163	<sup>5</sup> Property Name ATLANTIC C	
<sup>7</sup> OGRID No. 162928	<sup>8</sup> Operator Name ENERGEN RESOURCES CORPORATION	<sup>6</sup> Well Number 200S
		<sup>9</sup> Elevation 6473'

<sup>10</sup> Surface Location

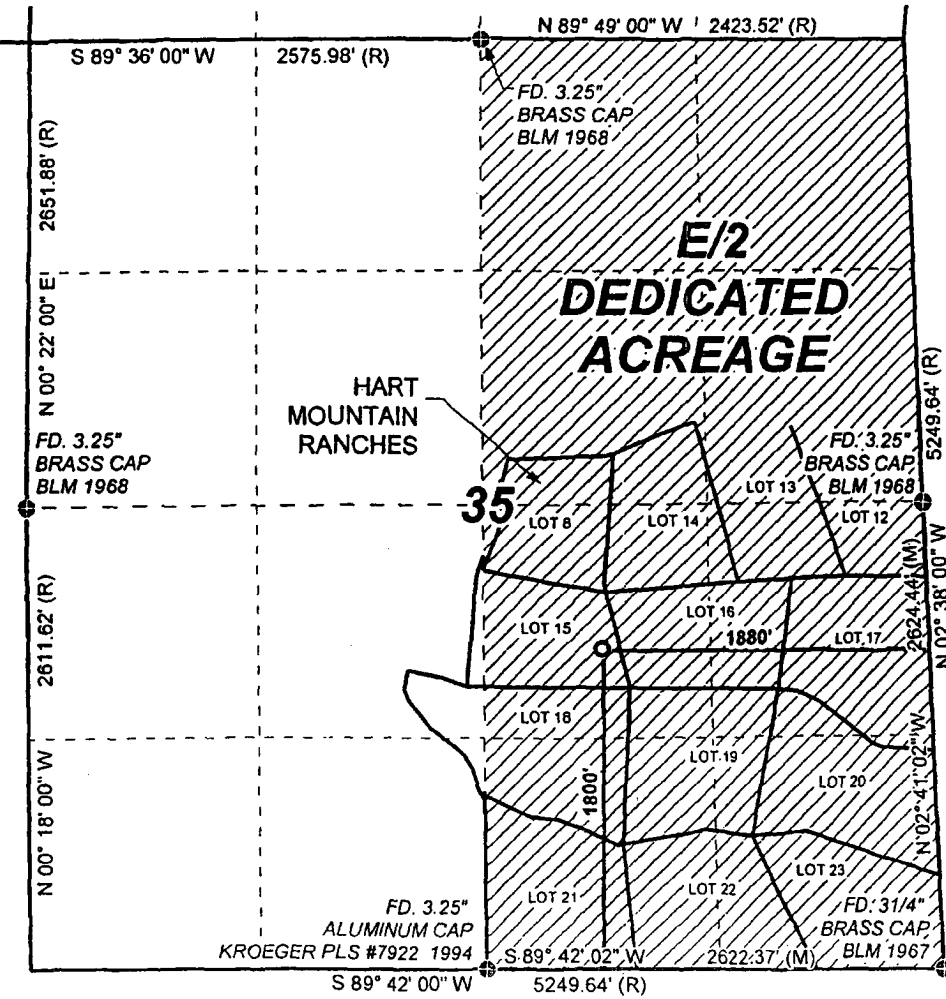
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	35	31N	10W		1800	SOUTH	1880	EAST	SAN JUAN

<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 320	<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.

*Nathan Smith*  
Signature

Nathan Smith  
Printed Name

Drilling Engineer  
Title and E-mail Address

9/13/05  
Date

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<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.

3/18/05  
Date of Survey

Signature and Seal of Professional Surveyor:  
*R. J. ...*

NM #9679  
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 API NO 30-045-32824  
5. Indicate Type of Lease  
STATE  FEE   
6. State Oil & Gas Lease No.

**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  
Energen Resources Corporation  
3. Address of Operator  
2198 Bloomfield Highway, Farmington, NM 87401  
4. Well Location  
Unit Letter J: 1800 feet from the South line and 1880 feet from the East line  
Section 35 Township 31N Range 10W NMPM County San Juan  
11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6473' GL  
Pit or Below-grade Tank Application  or Closure   
Pit type Drill Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water >250'  
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 COMPLETION   
OTHER: Build drilling pit

SUBSEQUENT REPORT OF:

REMEDIAL WORK  ALTERING CASING   
COMMENCE DRILLING OPNS.  PLUG AND ABANDONMENT   
CASING TEST AND 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.

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 BIM and "OCD Pit and Below-grade Tank Guidelines".

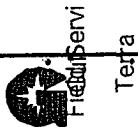
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit  or an (attached) alternative OCD-approved plan

SIGNATURE Nathan Smith TITLE Drilling Engineer DATE 09/13/05  
E-mail address: nsmith@energen.com  
Type or print name Nathan Smith Telephone No. 505.325.6800

For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 01 DATE DEC 14 2005  
Conditions of Approval, if any:





Tierra Servi  
Terra

KUTZ GATHERING SYSTEM

DWG. NO. KLB063-037-01

LINE ENERGEN RESOURCES CORP.- ATLANTIC C NO. 200S

WO NO. \_\_\_\_\_

FROM 0+00 = 21+59.48 ON B.R.O.G. CO.- ATLANTIC C No. 10

RW NO. \_\_\_\_\_

DATE 01/03/05

(KLB63-17-1, R/W NO. 72122)(MC NO. 87457)

SCALE 1" = 1000'

SURVEYED 12/18/04

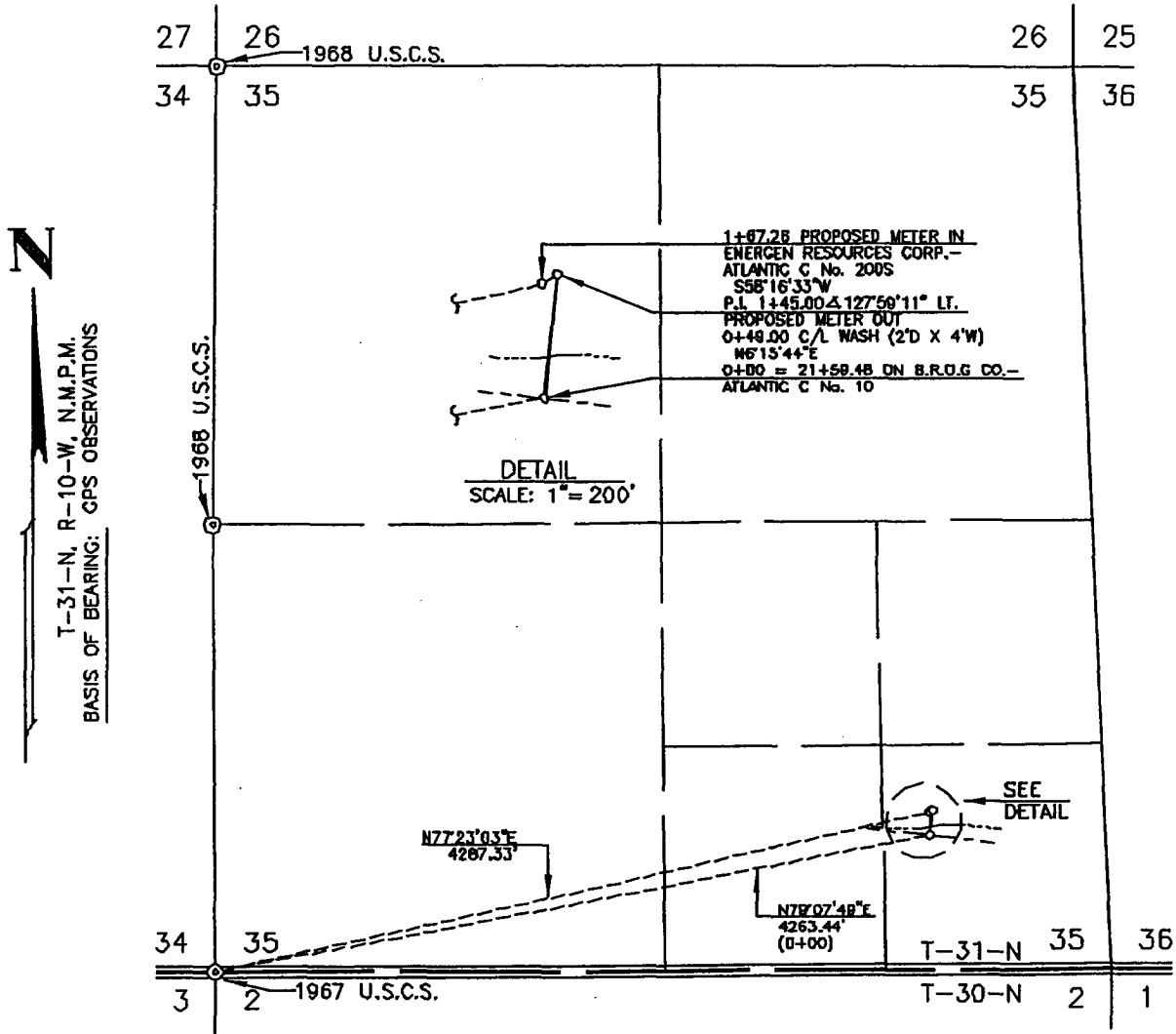
COUNTY SAN JUAN

STATE NEW MEXICO

SECTION 35

TOWNSHIP 31-N

RANGE 10-W, N.M.P.M.



N  
T-31-N, R-10-W, N.M.P.M.  
BASIS OF BEARING: GPS OBSERVATIONS

DETAIL  
SCALE: 1" = 200'

1+87.28 PROPOSED METER IN  
ENERGEN RESOURCES CORP.-  
ATLANTIC C No. 200S  
S56°16'33"W  
P.L. 1+45.00 Δ 127°59'11" LT.  
PROPOSED METER OUT  
0+48.00 C/L WASH (2'D X 4'W)  
N6°13'44"E  
0+00 = 21+59.48 ON B.R.O.G. CO.-  
ATLANTIC C No. 10

N77°23'03"E  
4267.33'

N77°07'48"E  
4263.44'  
(0+00)

SEE  
DETAIL

DWN. BY DB CONSTR. COMMENCED \_\_\_\_\_ APPL. DWG. \_\_\_\_\_ SLACK CHAIN \_\_\_\_\_  
CKD. BY MD CONSTR. COMPLETED \_\_\_\_\_ DATE \_\_\_\_\_ PIPE SIZE 4.50" O.D.

REV.	DESCRIPTION	DATE
1	Print Prod	01/05/05

NOTE: WELL FLAG  
SURVEY LOOPS PROPOSED ROAD  
LOCATION NOT BUILT

Preliminary

OWNERSHIP	SUBDIVISION	OWNER	LESSEE	METER(S)	RODS	ACRE(S)
	SE/4 SEC. 35	JOHN CAIN & GENE H. HOLMES, TRUSTEES			10.137	0.230

KLB063-037-01 FSRN24G (Rev. 9/03)

## Operations Plan

September 13, 2005

### Atlantic C #200S

#### General Information

Location	1800' fsl, 1880' fel S35, T31N, R10W San Juan County, New Mexico
Elevations	6473' GL
Total Depth	3390' (MD)
Formation Objective	Basin Fruitland Coal

#### Formation Tops

San Jose	Surface
Nacimiento	368'
Ojo Alamo Ss	1913'
Kirtland Sh	2018'
Fruitland Fm	2883'
Top Coal Interval	3068'
Bottom Coal Interval	3238'
Pictured Cliffs Ss	3243'
<b>Total Depth</b>	<b>3390'</b>

#### 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: Surface to TD use Induction/GR and Density logs.

Coring: None

Natural Gauges: None

## Tubulars

### Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-300'	12 ¼"	8 5/8"	24.0 ppf	J-55 ST&C
Production	0-3390'	7 7/8"	5 ½"	15.5 ppf	J-55 LT&C
Tubing	0'-3350'		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 ½" Larkin casing head. 5 ½" 2000 x 2" tubing head.

## Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl<sub>2</sub> and ¼ #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 267 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 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 510 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft<sup>3</sup>/sk) and a tail of 160 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.2ppg, 1.24 ft<sup>3</sup>/sk). (1198 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface).

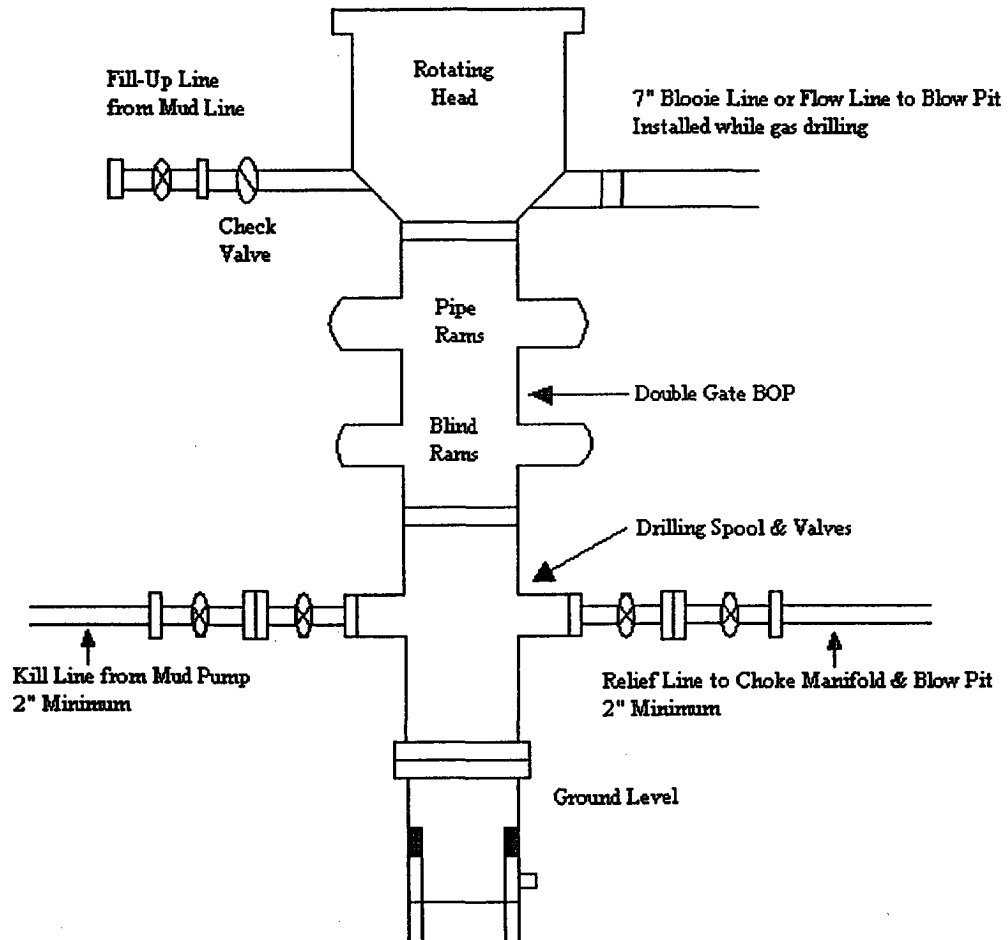
**Pump 30 sks of flyash scavenger spacer consisting of 15.0 % Benonite and 0.15 % HR-5 ahead of cement**

## 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.

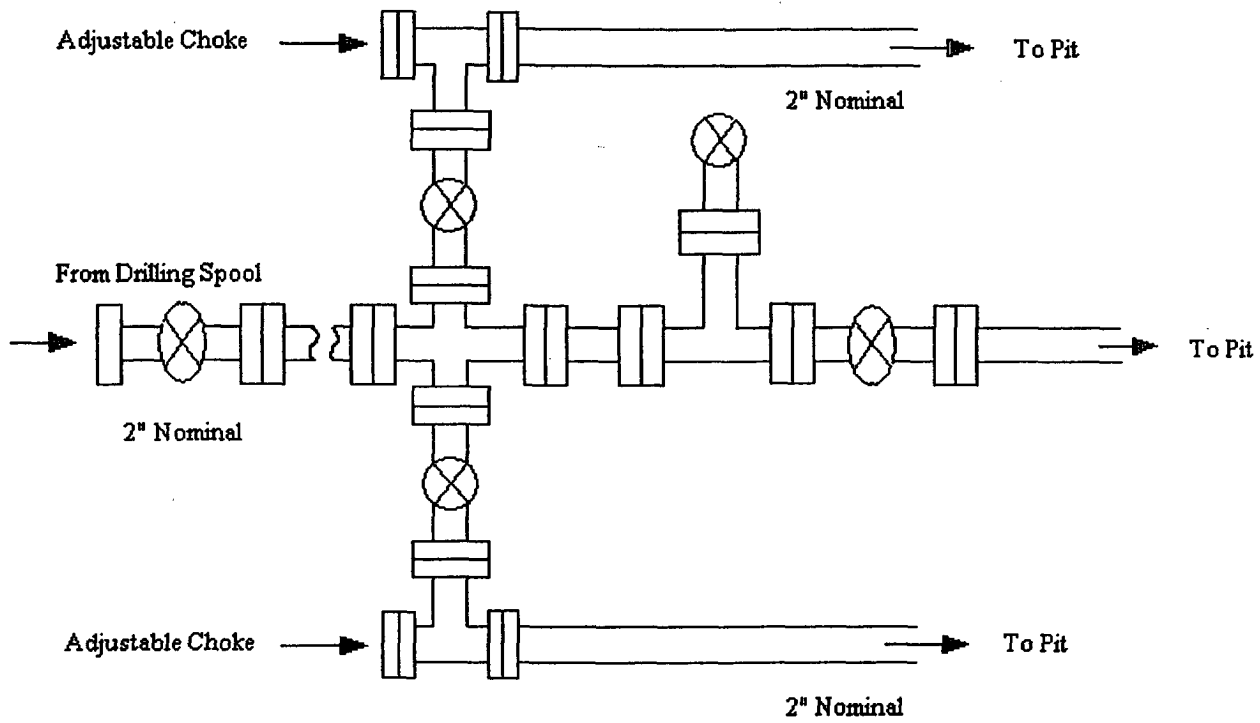
# Energen Resources Corporation

## Typical BOP Configuration for Gas Drilling





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



Choke manifold installed from surface to TD