

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0136  
Expires: November 30, 2000

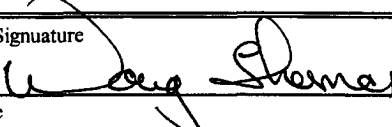

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		2003 JAN -6 AM 10:07	5. Lease Serial No. SF-079483-A
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		070 Farmington, NM	6. Indian, Allottee or Tribe Name
2. Name of Operator Energen Resources Corporation			7. Unit or CA Agreement Name and No. San Juan 30-4 Unit
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401		3b. Phone No. (include area code) (505) 325-6800	8. Lease Name and Well No. San Juan 30-4 Unit 54
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface 2585' FNL, 1645' FEL At proposed prod. zone			9. API Well No. 3003927278
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 Blanco PC/Basin Fruitland Coal
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1645'		16. No. of Acres in lease 1178.3	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 9, T30N, R4W, N.M.P.M.
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1200'		19. Proposed Depth 4799'	12. County or Parish Rio Arriba
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7482' GL		22. Approximate date work will start* July 2003	13. State NM
		20. BLM/BIA Bond No. on file	17. Spacing Unit dedicated to this well PC 160/NE/4 FRT 320/E/2
		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 	Name (Printed/Typed) Doug Thomas	Date 12/30/02
Title Drilling & Completion Foreman		
Approved by (Signature) 	Name (Printed/Typed) David J. Mankiewicz	Date MAY 10 2004
Title 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

NMOC

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

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

District II  
PO Drawer 00, 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

<sup>1</sup> API Number <b>30-039-27278</b>	<sup>2</sup> Pool Code 72400 \ 71629	<sup>3</sup> Pool Name Blanco Pictured Cliffs, East \ Basin Fruitland Coal
<sup>4</sup> Property Code <b>21994</b>	<sup>5</sup> Property Name SAN JUAN 30-4 UNIT	<sup>6</sup> Well Number 54
<sup>7</sup> GRID No. 162928	<sup>8</sup> Operator Name ENERGEN RESOURCES CORPORATION	<sup>9</sup> Elevation 7482'

<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
G	9	30N	4W		2585	NORTH	1645	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	160.0 Acres (NE/4) - PC 320.0 Acres (E/2) - FC				<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<div><p>16</p><p>5280.00'</p><p>5280.00'</p><p>5280.00'</p><p>5280.00'</p><p>RECEIVED JAN - 6 AM 10:07 70 Farmington, NM</p></div>	<div><p>5280.00'</p><p>1645'</p><p>9</p><p>MAY 2004 RECEIVED OIL CONSERV. DIV. DIST. 6</p></div>	<div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p><p><i>Don Graham</i> Signature Don Graham Printed Name Production Superintendent Title 1-2-03 Date</p><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>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.</p><p>Survey Date: DECEMBER 9, 2002</p><p>Signature and Seal of Professional Surveyor</p><p><b>JASON C. EDWARDS</b> 15269 REGISTERED PROFESSIONAL SURVEYOR NEW MEXICO</p><p><b>JASON C. EDWARDS</b> Certificate Number 15269</p></div>
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## OPERATIONS PLAN

WELL NAME: San Juan 30-4 Unit #54

LOCATION: 2585' FNL, 1645' FEL, Section 9, T30N, R4W, Rio Arriba County, NM

FIELD: Basin Fruitland Coal/Blanco Pictured Cliffs

ELEVATION: 7482' GL

### FORMATION TOPS:

Surface	San Jose
Nacimiento	2379
Ojo Alamo	3659
Kirtland	3844
Fruitland	4129
Pictured Cliffs	4279

Total Depth           **4799**

### LOGGING PROGRAM:

Open Hole Logs:

Surface to TD: HRI/SP/GR, CNT/LDT/MLT, MRIL

Mud Logs:               None

Coring:                 None

Natural Gauges:       None

MUD PROGRAM:   Fresh water low solids mud from surface to T. D. 9.0-9.2 PPG.

### 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
7 7/8"	4799'	5 1/2"	15.5#	J-55

### TUBING PROGRAM:

4700'	2 3/8"	4.7#	J-55
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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.

5 1/2" production casing:

First Stage - cement with 165 sks Class B with 2% Calcium Chloride, 10% Gilsonite and 1/4# flocele/sks (207 cu. ft. of slurry, 50% excess to circulate stage tool @ 4000).

Second Stage - cement with 510 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 50 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (1040 cu. ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 8 bow spring centralizers spaced every 3rd joint off bottom. One bow spring centralizer below and eight above stage tool at 4000. Two turbolating centralizers at the base of the Ojo Alamo.

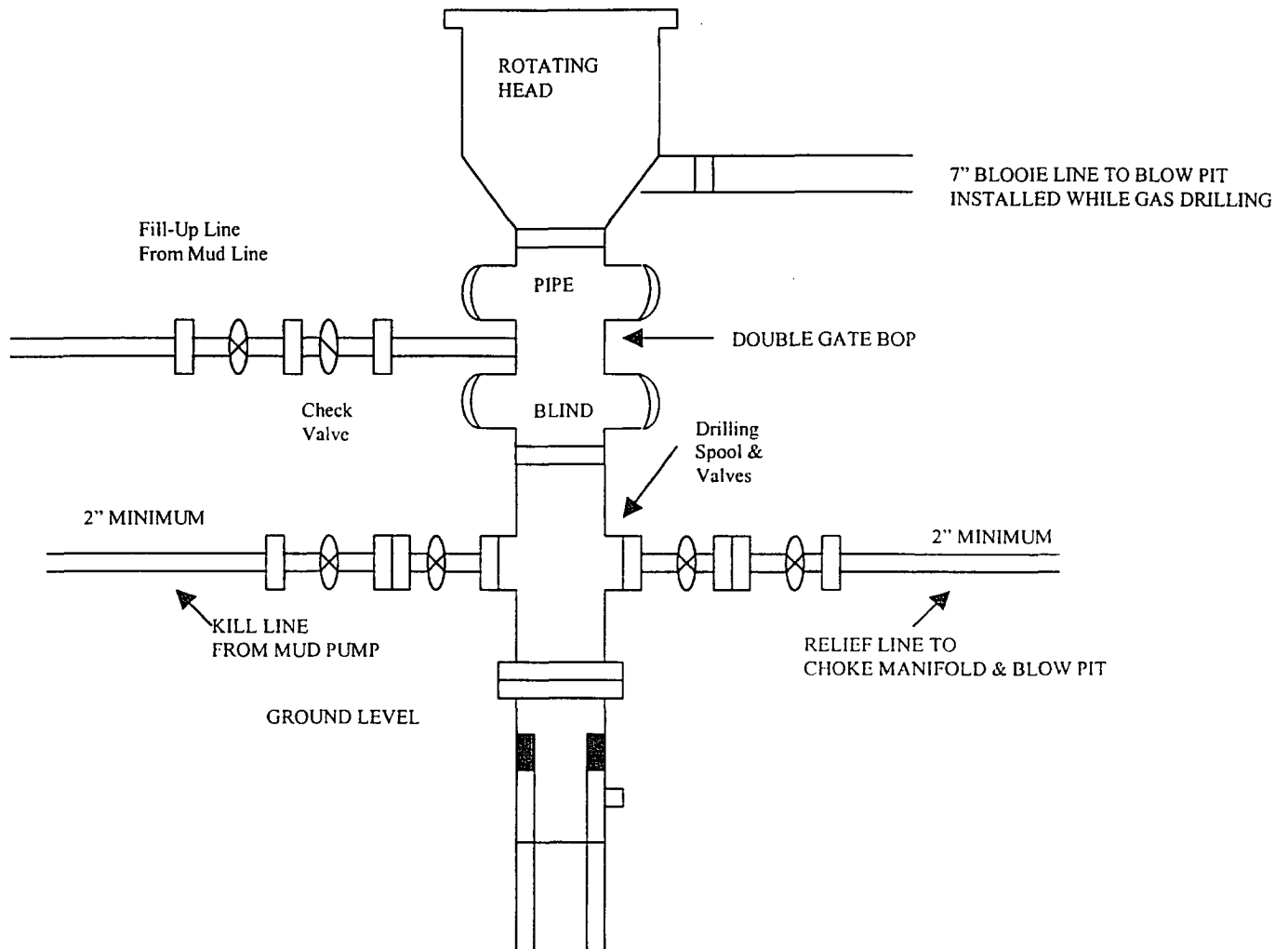
### OTHER INFORMATION:

- 1) No abnormal temperatures or pressures are anticipated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 3) This gas is dedicated.
- 4) Anticipated pore pressure for the Fruitland is 900 psi and the Pictured Cliffs is 1000 psi.

# ENERGEN RESOURCES CORPORATION

Mesa Verde / Dakota Well

## BOP Configuration

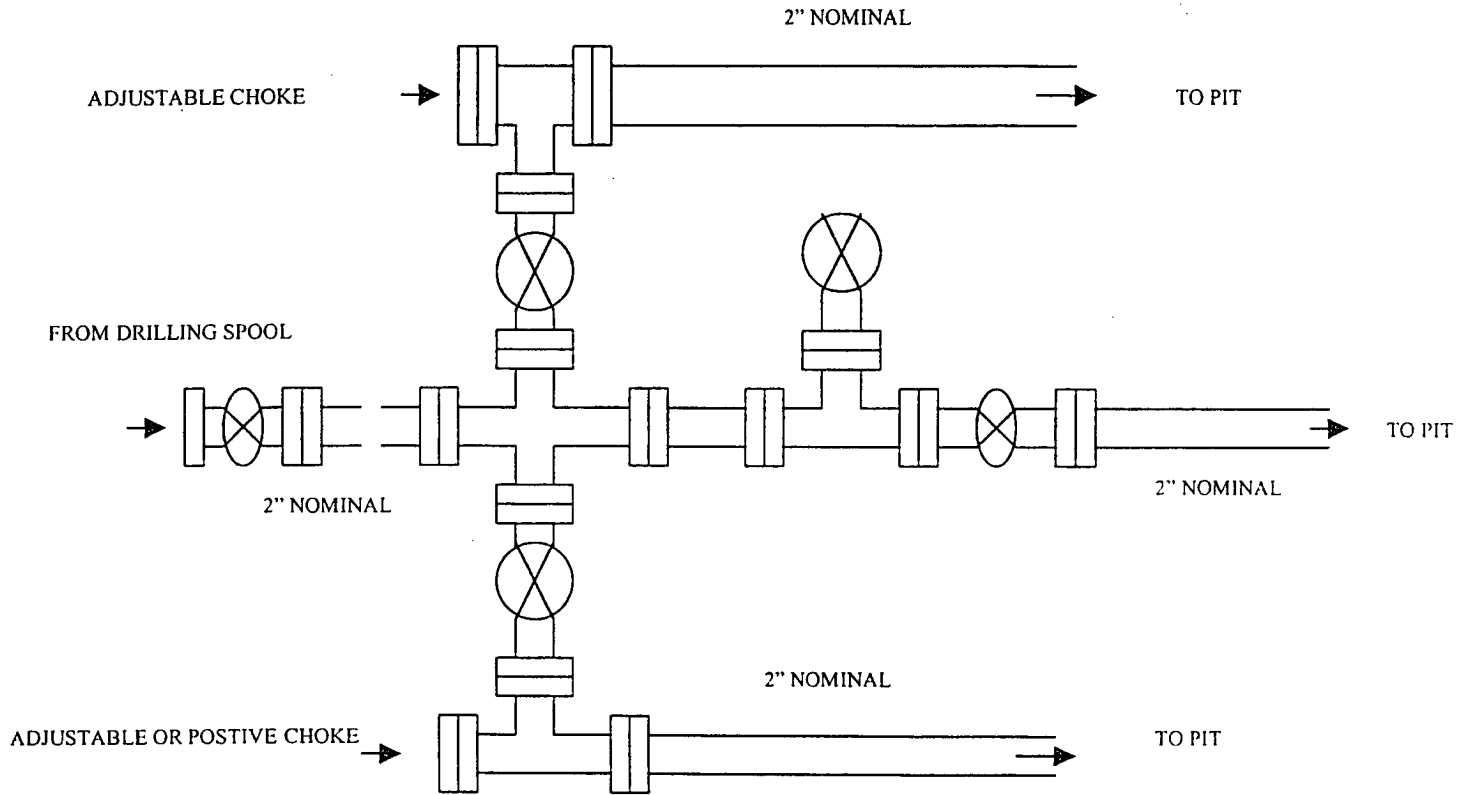


Minimum BOP installation for a Mesaverde well from Surface to Total Depth. 11' Bore, 2000 psi minimum working pressure double Gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of The BOP. All equipment is 2000 psi working pressure or greater.

# 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.

**ENERGEN RESOURCES CORPORATION SAN JUAN 30-4 UNIT #54**  
**2585' FNL & 1645' FEL, SECTION 9, T30N, R4W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO GROUND ELEVATION: 7482'**

**LATITUDE: 36°49'35"**  
**LONGITUDE: 107°15'23"**  
 DATUM: NAD1927

