

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

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-079011
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. San Juan 32-5 Unit
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87402		8. Lease Name and Well No. San Juan 32-5 Unit 102S
3b. Phone No. (include area code) (505)325-6800		9. API Well No. 30-039-27268
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1690' FNL, 835' FWL - SWNW At proposed prod. zone		10. Field and Pool, or Exploratory Basin Fruitland Coal
14. Distance in miles and direction from nearest town or post office* 16 miles northeast of Gobernador, NM		11. Sec., T., R., M., or Blk. and Survey or Area E Sec. 24, T32N, R06W, N.M.P.M.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 835	16. No. of Acres in lease 1480	17. Spacing Unit dedicated to this well 320 w/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 800	19. Proposed Depth 3228	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6433' GL	22. Approximate date work will start* 05/2003	23. Estimated duration 10 days

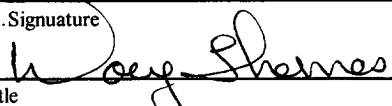
This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

24. Attachments

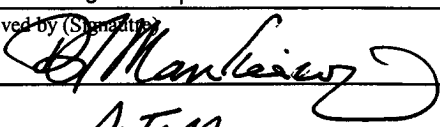
DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

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 12/20/02
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Title  
Drilling & Completion Foreman

Approved by (Signature) 	Name (Printed/Typed)	Date 5-28-04
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Title  
AFM

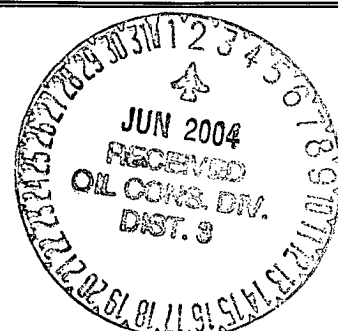
Office  
FFO

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)

NMOCD



District II  
PO Drawer 00, Artesia, NM 88211-0719

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

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

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

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number' 30039-27268	'Pool Code' 71629	'Pool Name' Basin Fruitland Coal
'Property Code' 21996	'Property Name' SAN JUAN 32-5 UNIT	'Well Number' 102S
'OGRID No.' 162928	'Operator Name' ENERGEN RESOURCES CORPORATION	'Elevation' 6433'

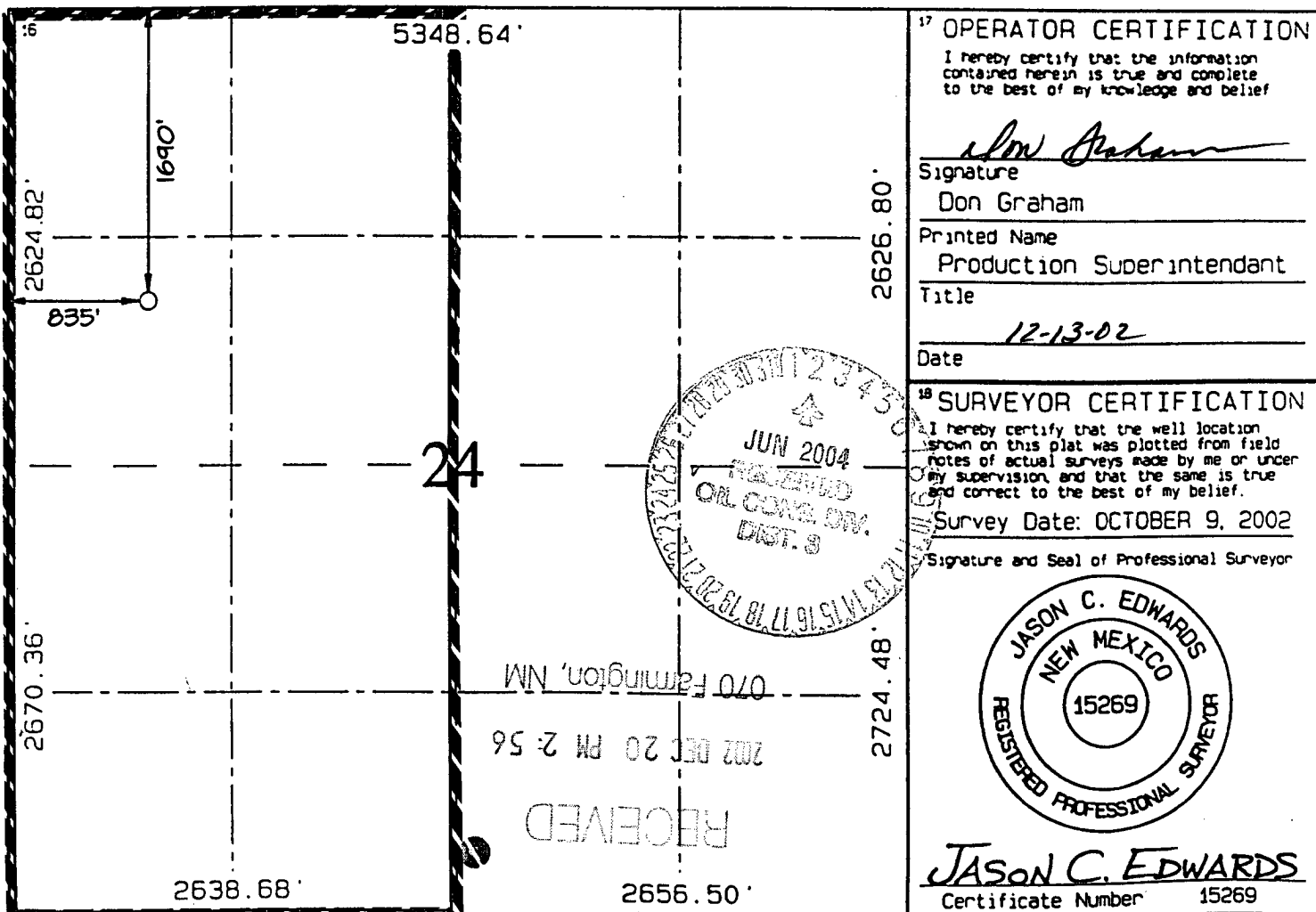
<sup>10</sup> Surface Location

U. or lot no.	Section	Township	Range	Lot 1 or 2	Feet from the	North/South line	Feet from the	East/West line	County
E	24	32N	6W		1690	NORTH	835	WEST	RIO ARRIBA

<sup>11</sup>Bottom Hole Location If Different From Surface

U. 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 320.0 Acres - (W/2)					<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



## OPERATIONS PLAN

WELL NAME: San Juan 32-5 #102S

LOCATION: 1690' FNL, 835' FWL, Section 24, T32N, R6W, Rio Arriba County, NM

FIELD: Basin Fruitland Coal

ELEVATION: 6433' GL

### FORMATION TOPS:

San Jose	Surface
Nacimiento	1228
Ojo Alamo	2428
Kirtland	2533
Fruitland	3033

Total Depth                **3228**

### 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#	11-40 J-55 - ST&C
8 3/4"	3033'	7"	20#	J-55 - ST&C
6 1/4"	2933'-3228'	5 1/2"	15.5#	J-55 - LT&C

### TUBING PROGRAM:

3200'	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. 3 bow type centralizers spaced throughout the string.

7" intermediate casing – cement with 355 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. (684 cu. ft. of slurry, 50% 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.

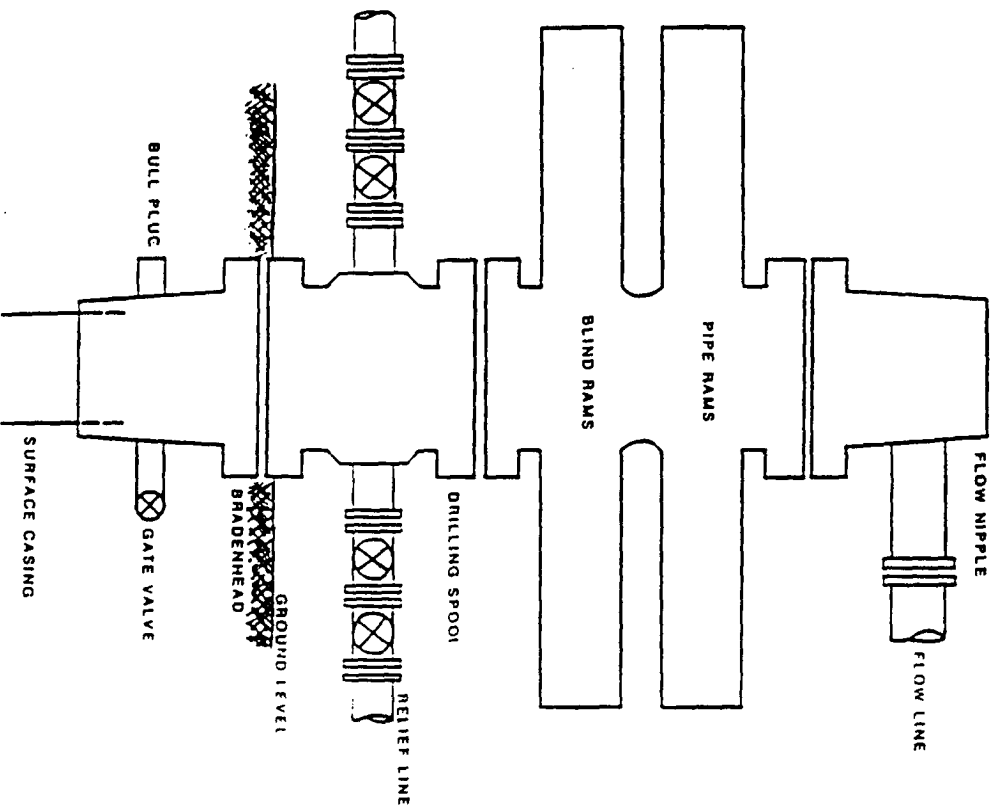
5 1/2" liner – NO CEMENT

### 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 700 psi.

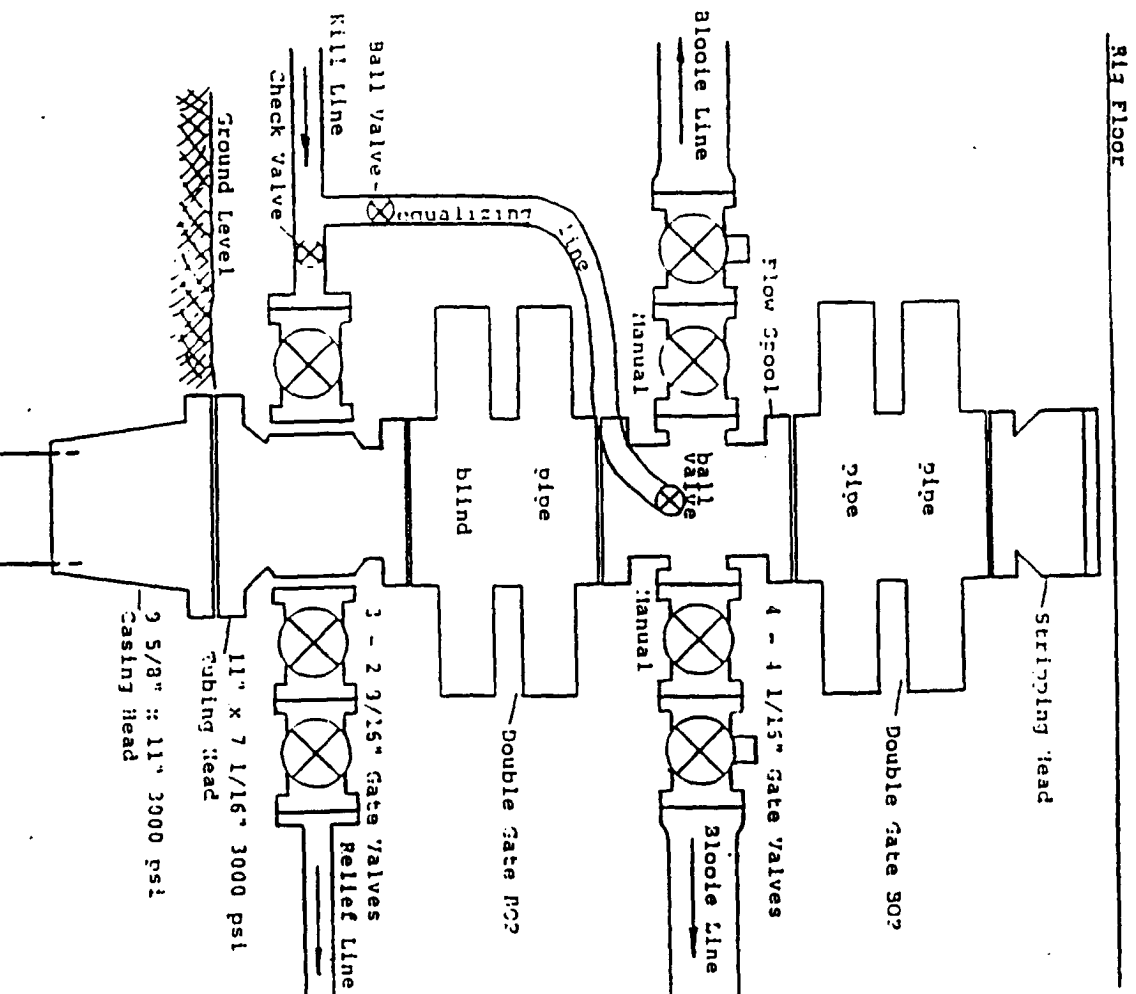
# Figure #1

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



# Figure #2

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

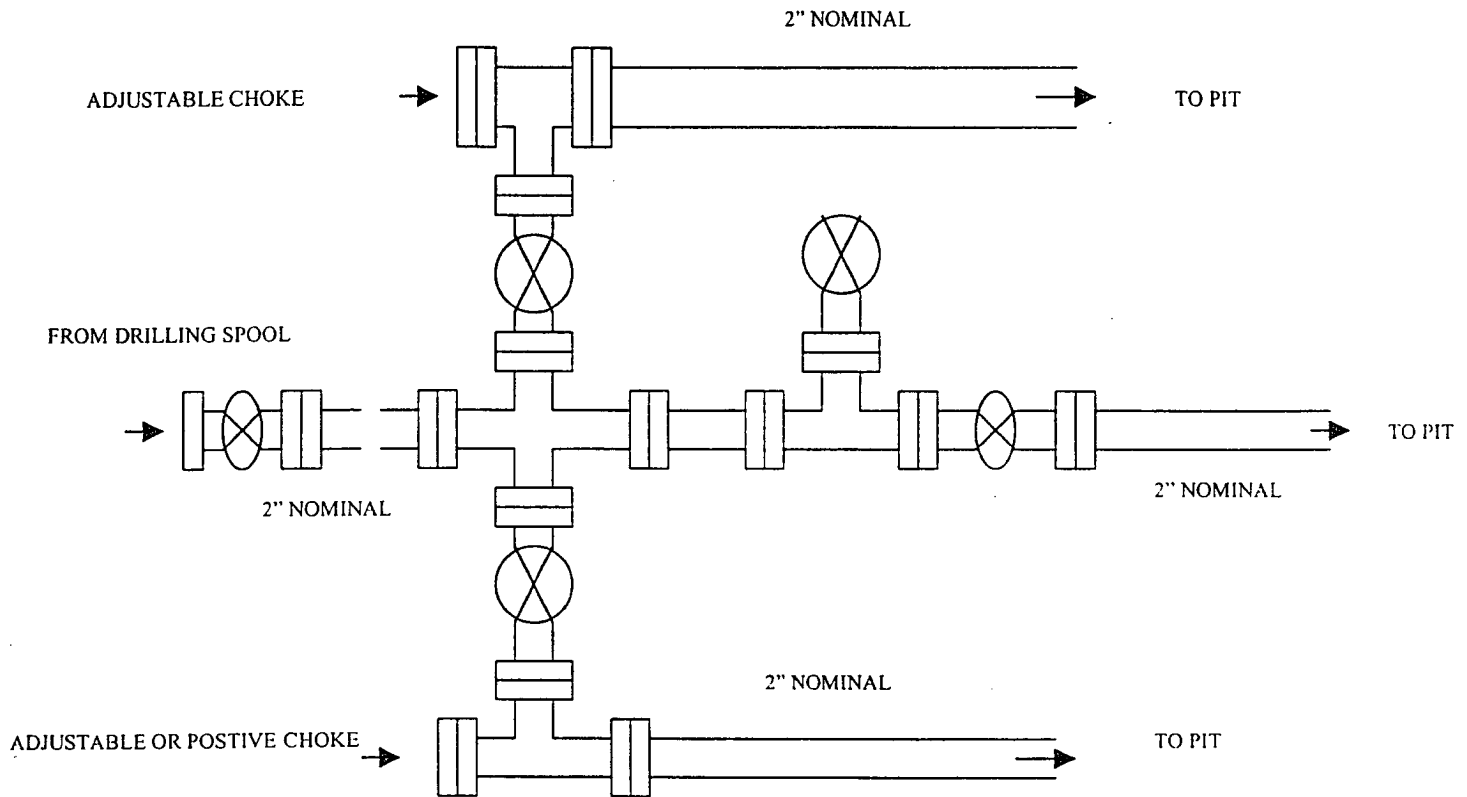


Series 900 double gate BOP  
Rated at 3000 psi working pressure

# ENERGEN RESOURCES CORPORATION

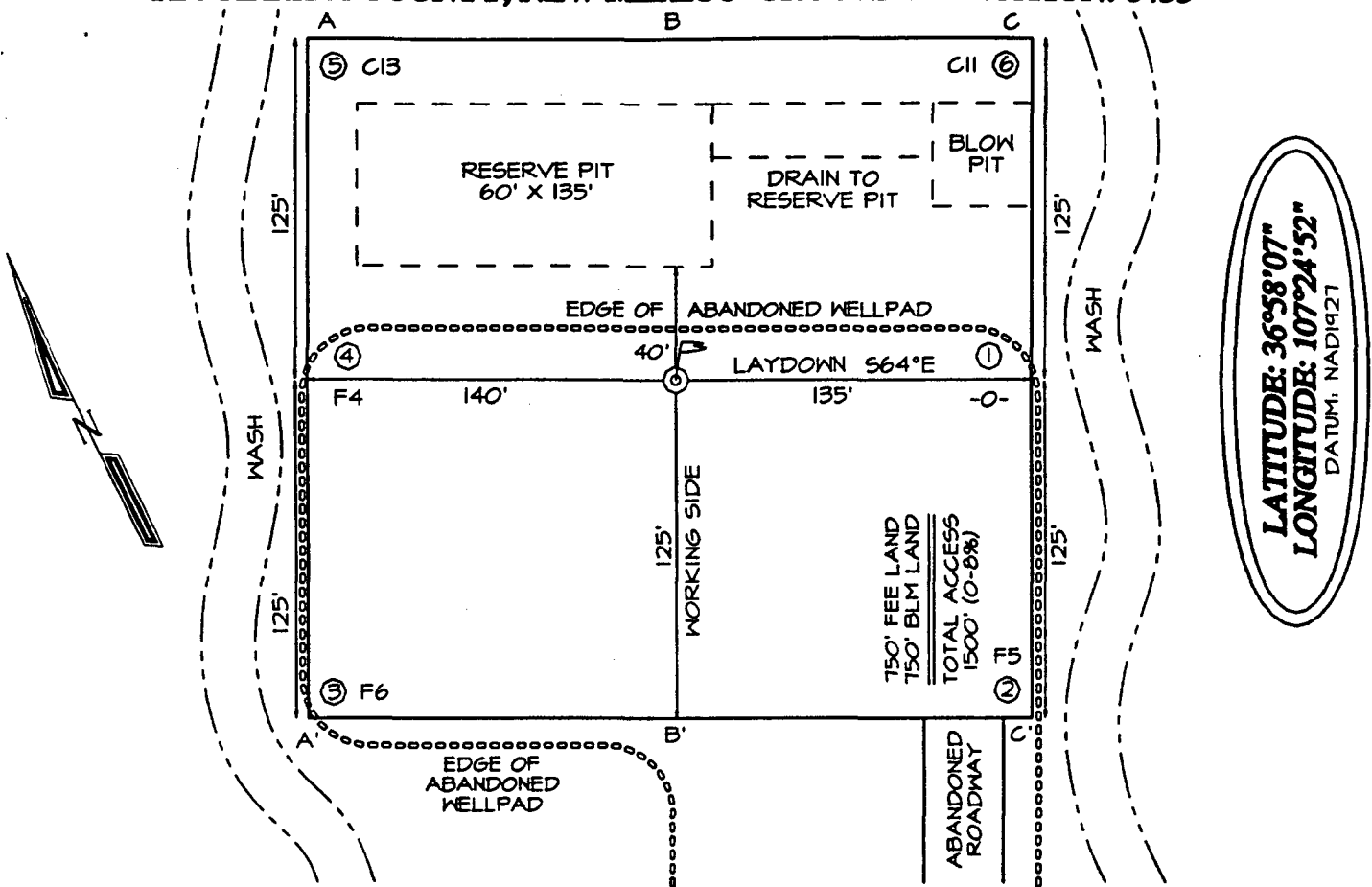
## Choke Manifold Configuration

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 32-5 UNIT #102S**  
**1690' FNL & 835' FWL, SECTION 24, T32N, R6W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO GROUND ELEVATION: 6433'**



**LATITUDE: 36°58'07"**  
**LONGITUDE: 107°24'52"**  
 DATUM: NAD1927

