

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

2004 MAY 11 AM 11:03

070 Farmington, NM

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

5. Lease Serial No.
SF-065557 A

6. If Indian, Allottee or Tribe Name

If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

Cornell #2R

9. API Well No.

3004532346

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area

M Sec. 1, T29N, R12W

12. County or Parish

San Juan

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other

☒ Single Zone

☐ Multiple Zone

2. Name of Operator

ENERGEN RESOURCES CORPORATION

3A. Address

c/o Walsh Engineering, 7415 E. Main, Farmington, NM 87402

3b. Phone No. (include area code)

(505) 327-4892

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface

885' FSL and 660' FWL

At proposed prod. Zone

14. Distance in miles and direction from nearest town or post office*

5 miles east of Farmington, NM

15. Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

660'

16. No. of Acres in lease

320

17. Spacing Unit dedicated to this well

**320-08
320 acres S/2**

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

150'

19. Proposed Depth

2140' +/-

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

5812' GL

22. Approximate date work will start*

July 2003

23. Estimated duration

1 week

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.

2. A Drilling Plan.

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.

4. Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the
authorized office.

25. Signature

Paul C. Thompson

Name (Printed/Typed)

Paul C. Thompson, P.E.

Date

5/10/2004

Title

Agent

Approved by (Signature)

B. Mankie
AFM

Name (Printed/Typed)

Date

7-19-04

Title

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)

HOLD C104 FOR *Change in status to Cornell #2*

NMOCD

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

District II
PO Drawer DD, 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 30045-32346		Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code 21195	Property Name CORNELL		Well Number 2R
OGRID No. 162928	Operator Name ENERGEN RESOURCES CORPORATION		Elevation 5812'

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
M	1	29N	12W		885	SOUTH	660	WEST	SAN JUAN

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 320.08 Acres - (S/2)					¹³ Joint or Infill Y	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

16 1321.32' LOT 4	5237.76' LOT 3	LOT 6	LOT 5	1269.18'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <u>Paul C. Thompson</u> Signature <u>PAUL C. THOMPSON</u> Printed Name <u>AGENT</u> Title <u>MAY 10, 2004</u> Date
1313.40' LOT 12	LOT 11	LOT 10	LOT 9	2627.46'	2631.42'
660' 885' LOT 13	LOT 14	LOT 15	LOT 16	5305.08'	

ENERGEN RESOURCES CORP.
OPERATIONS PLAN
CORNELL #2R

I. Location: 885' FSL & 660' FWL Date: May 10, 2004
 Sec 1 T29N R12W
 San Juan County, NM

Field: Basin Fruitland Coal Elev: GL 5812'
Surface: Bureau of Land Management
Minerals: Federal SF 065557

II. Geology: Surface formation _ Nacimientto

A. Formation Tops	Depths
Ojo Alamo	569'
Kirtland	719'
Fruitland	1529'
Pictured Cliffs	1939'
Total Depth	2140'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 1529' and 1939'.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H₂S zones will be penetrated in this well. Max. BHP = 600 psig.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits #1 and #2 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 600 psi.

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a floor safety valve and choke manifold all rated to 2000 psi. The length of the Kelly does not allow enough room for a Kelly cock.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# K-55
6-1/4"	2140'	4-1/2"	10.5# K-55

B. Float Equipment:

a) Surface Casing: None

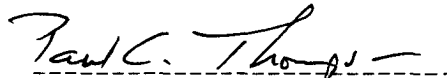
b) Production Casing: 4-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every fifth joint from the top of the well.

V. Cementing:

Surface casing: 7" - Use 50 sx (59 cu. ft.) of Cl "B" with ¼ #/sk celloflake and 2% CaCl₂ (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. **Lead** with 150 sx (309 cu.ft) of Cl "B" with 2% metasilicate, ¼ #/sk celloflake and 5 #/sk gilsonite. Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG).

Tail with 110 sx (130 cu.ft.) of Cl "B" with ¼ #/sk celloflake and 5 #/sk gilsonite. (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 439 cu.ft. (100% excess to circulate cement to surface).



Paul C. Thompson, P.E.

Energen Resources, Inc.

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: March, 2003

By: John Thompson (Walsh E&P)

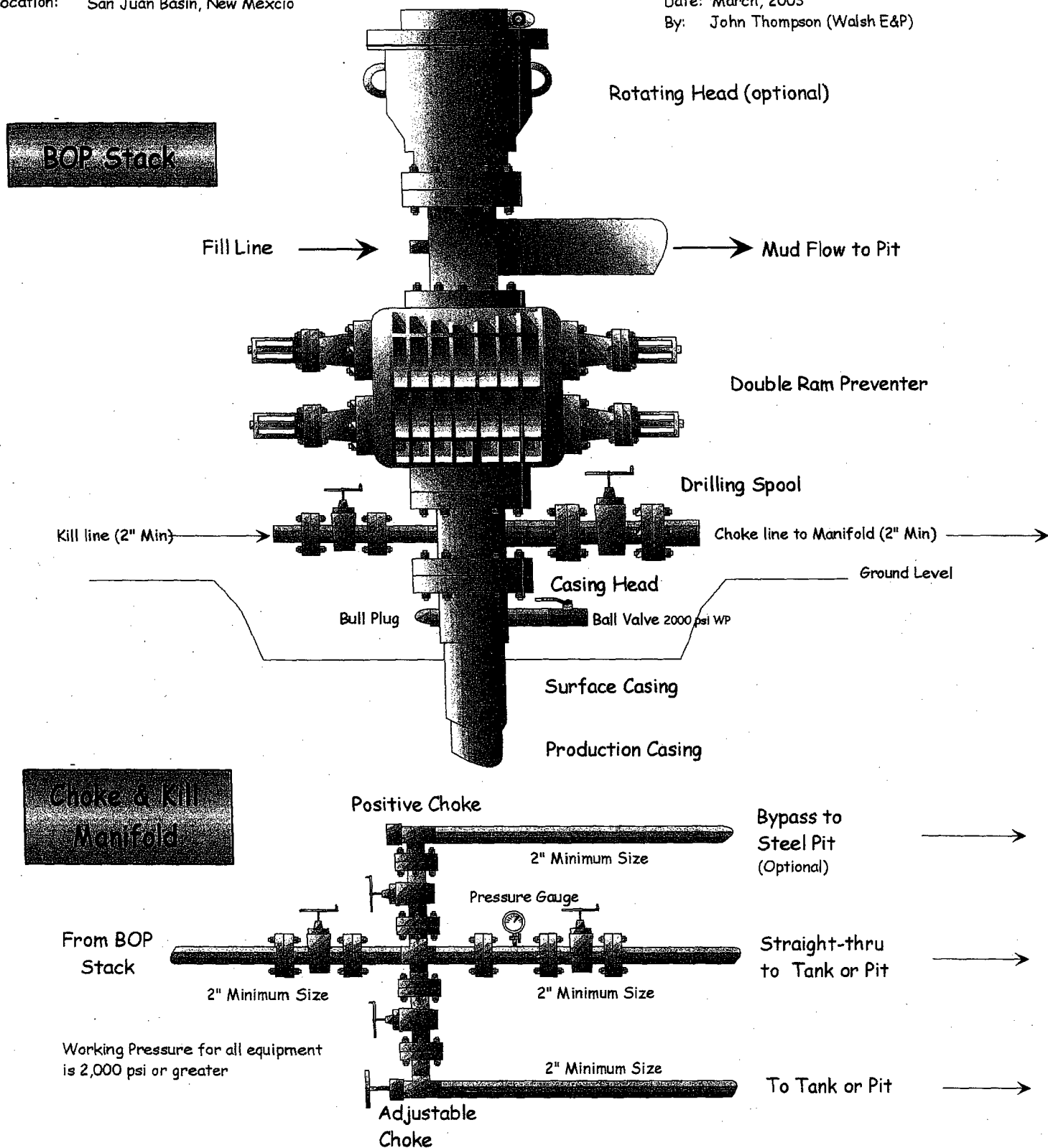
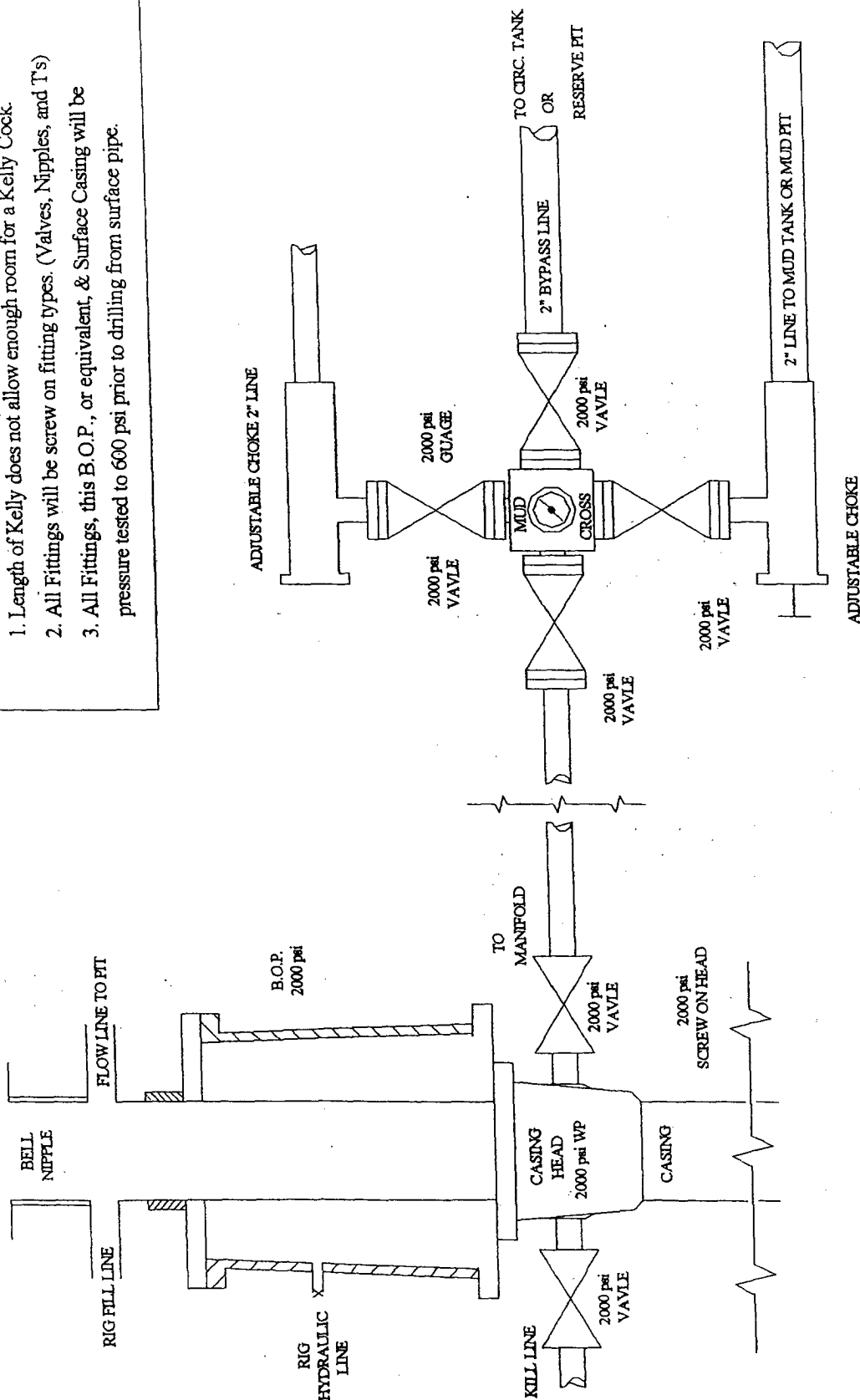


EXHIBIT #2

BLOW OUT PREVENTER (B.O.P.)

Notes:

1. Length of Kelly does not allow enough room for a Kelly Cock.
2. All Fittings will be screw on fitting types. (Valves, Nipples, and Ts)
3. All Fittings, this B.O.P., or equivalent, & Surface Casing will be pressure tested to 600 psi prior to drilling from surface pipe.



** 2000 psi Rubber hose will be used from Well Head to Manifold & from Well Head to Kill Line.

ENERGEN RESOURCES CORPORATION CORNELL #2R

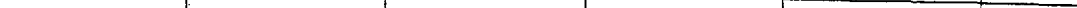
885' FSL & 660' FWL, SECTION 1, T29N, R12W, NMPM

SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 5812'



A-A'						
5823'						
5813'						
5803'						

B-B'						
5823'						
5813'						
5803'						

C-C'						
5823'						
5813'						
5803'						

Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction