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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

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 **660' FNL and 2630' FWL**

At proposed prod. Zone

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

9 miles south 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 acres (North half)

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

1200'

19. Proposed Depth

1600 +/-

20. BLM/BIA Bond No. on file

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

5927' GL

22. Approximate date work will start*

June 15, 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

5/9/03

Title

Agent

Approved by (Signature)

B. M. Anderson
AFM

Name (Printed/Typed)

Office

FFO

Date

6-29-05

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)

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
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

¹ API Number 30-045-31674	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 21370	⁵ Property Name RICHARDSON	⁶ Well Number 101S
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION	⁹ Elevation 5927'

¹⁰ Surface Location

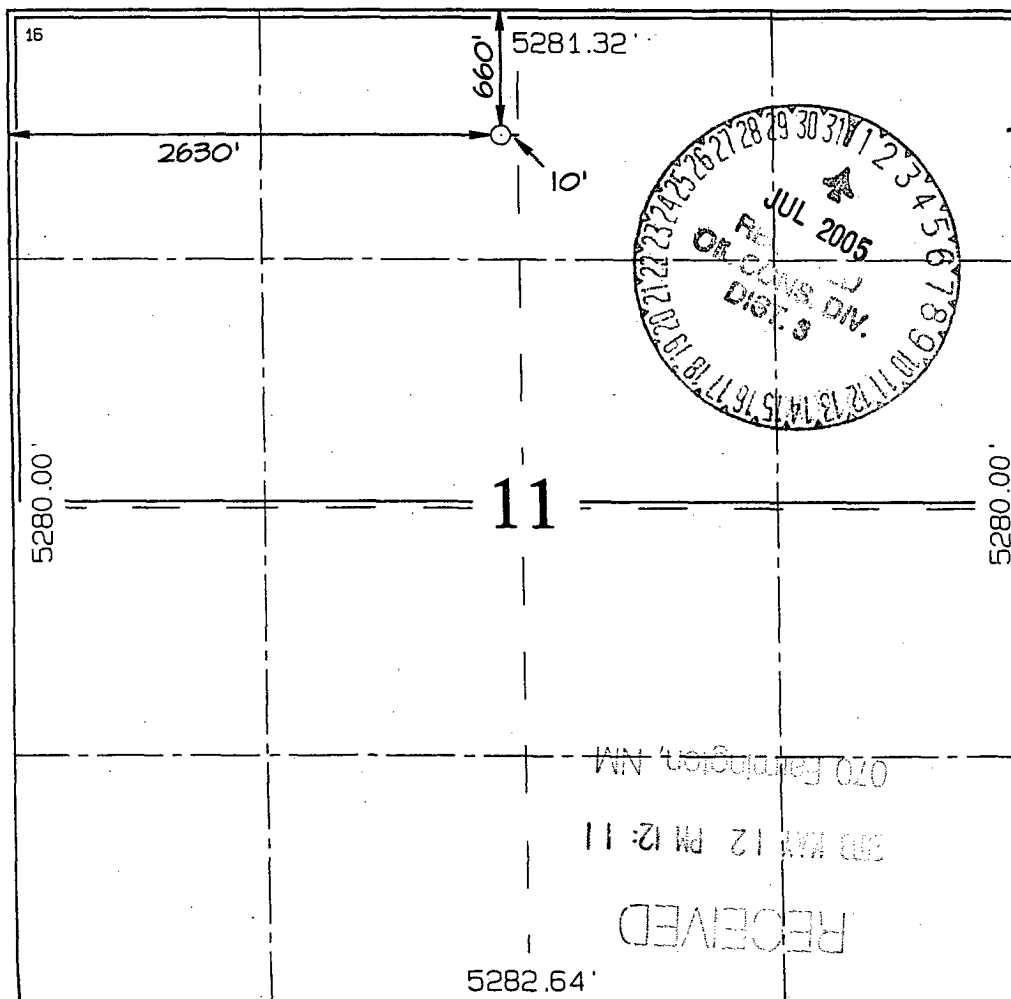
UL or lot no. C	Section 11	Township 27N	Range 13W	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 2630	East/West line WEST	County SAN JUAN
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedicated Acres 320.0 Acres - (N/2)	¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ 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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Paul C. Thompson
Signature

PAUL C. THOMPSON
Printed Name

AGENT
Title

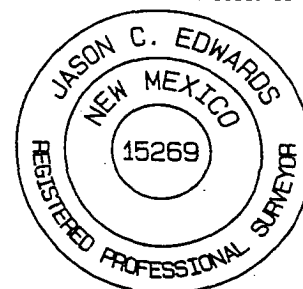
5/9/03
Date

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.

Date of Survey: MARCH 21, 2003

Signature and Seal of Professional Surveyor

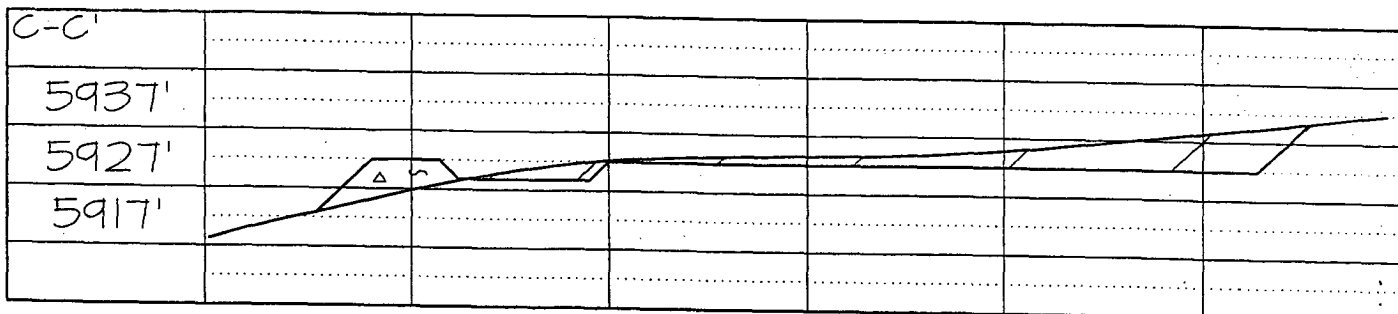
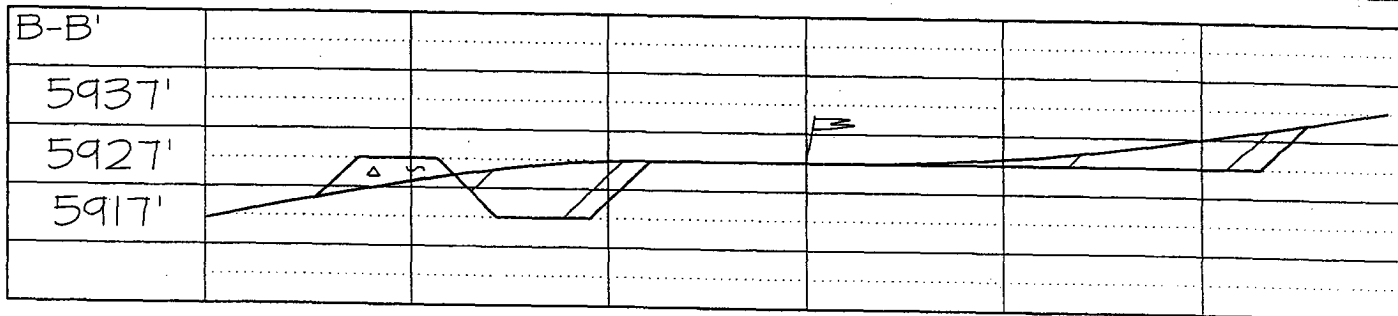
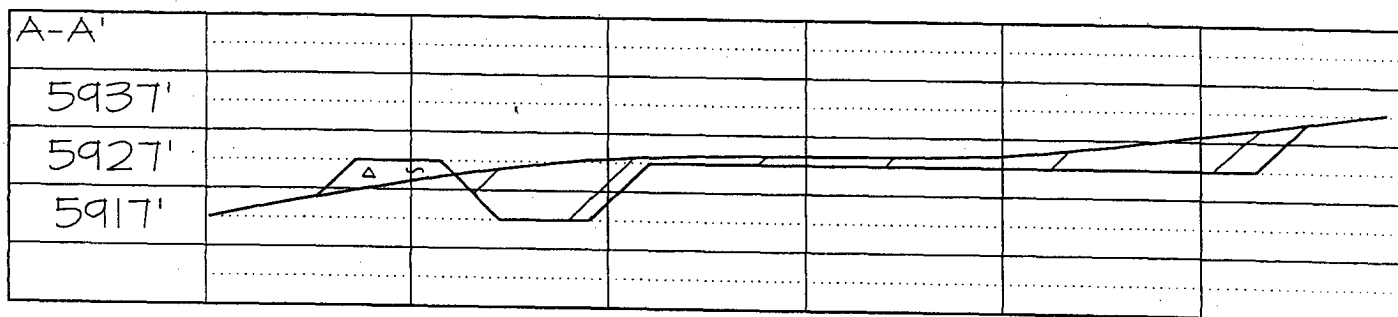
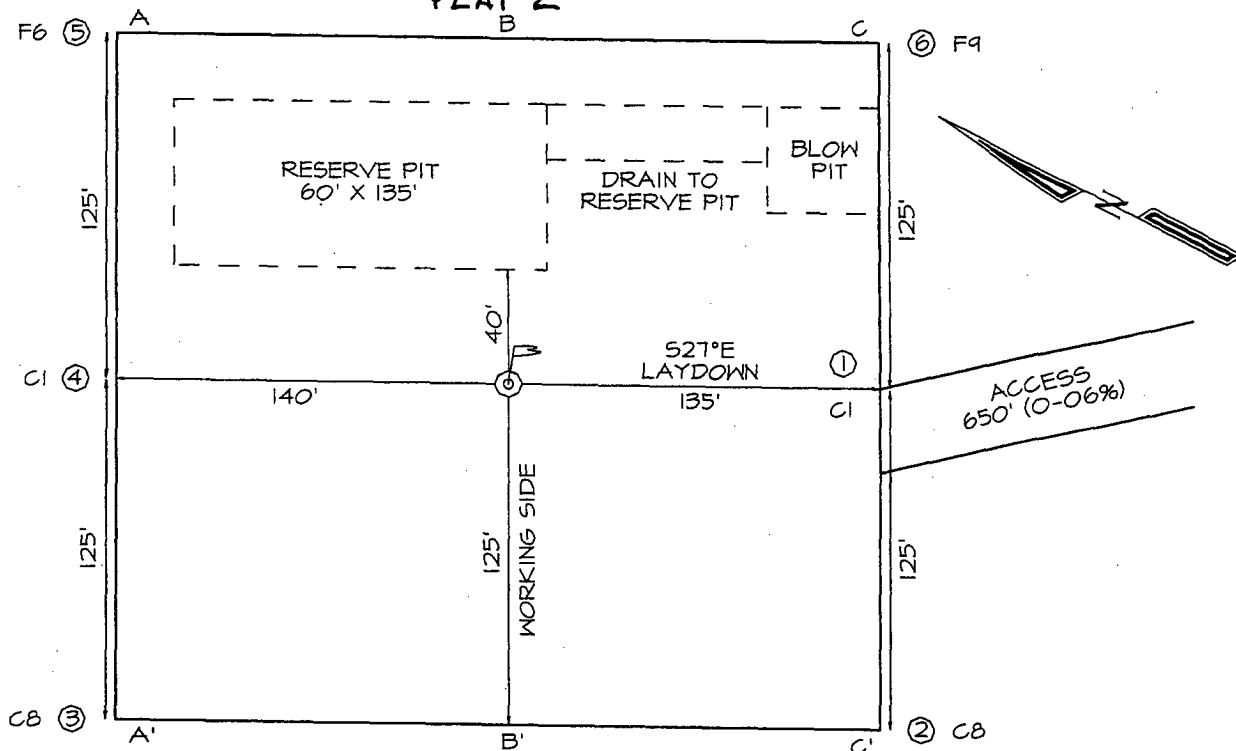


JASON C. EDWARDS
Certificate Number 15269

ENERGEN RESOURCES CORPORATION RICHARDSON #101S
660' FNL & 2630' FWL, SECTION 11, T27N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 5927'

PLAT 2

LATITUDE: 36°35'43"
 LONGITUDE: 108°11'17"
 DATUM: NAD1927



ENERGEN RESOURCES CORP.
OPERATIONS PLAN
Richardson 101S

I. Location: 660' FNL & 2630' FWL Date: April 25, 2003
 Sec 11 T27N R13W
 San Juan County, NM

Field: Basin Fruitland Coal Elev: GL 5927'
Surface: Navajo Nation
Minerals: Federal SF 077972

II. Geology: Surface formation _ Nacimiento

A. Formation Tops	Depths
Ojo Alamo	124'
Kirtland	224'
Fruitland	1204'
Pictured Cliffs	1399'
Total Depth	1600'

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

Water and gas - 1204' and 1399'.

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 exhibit #1 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 1000 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 kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# K-55
6-1/4"	1600'	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 other 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 105 sx (216 cu.ft) of Cl "B" with 2% metasilicate and ¼ #/sk celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). **Tail** with 100 sx (118 cu.ft.) of Cl "B" with ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 334 cu.ft. (100% excess to circulate cement to surface).


Paul C. Thompson, P.E.

Energen Resources, Inc.

Well Control Equipment Schematic for 2M Service

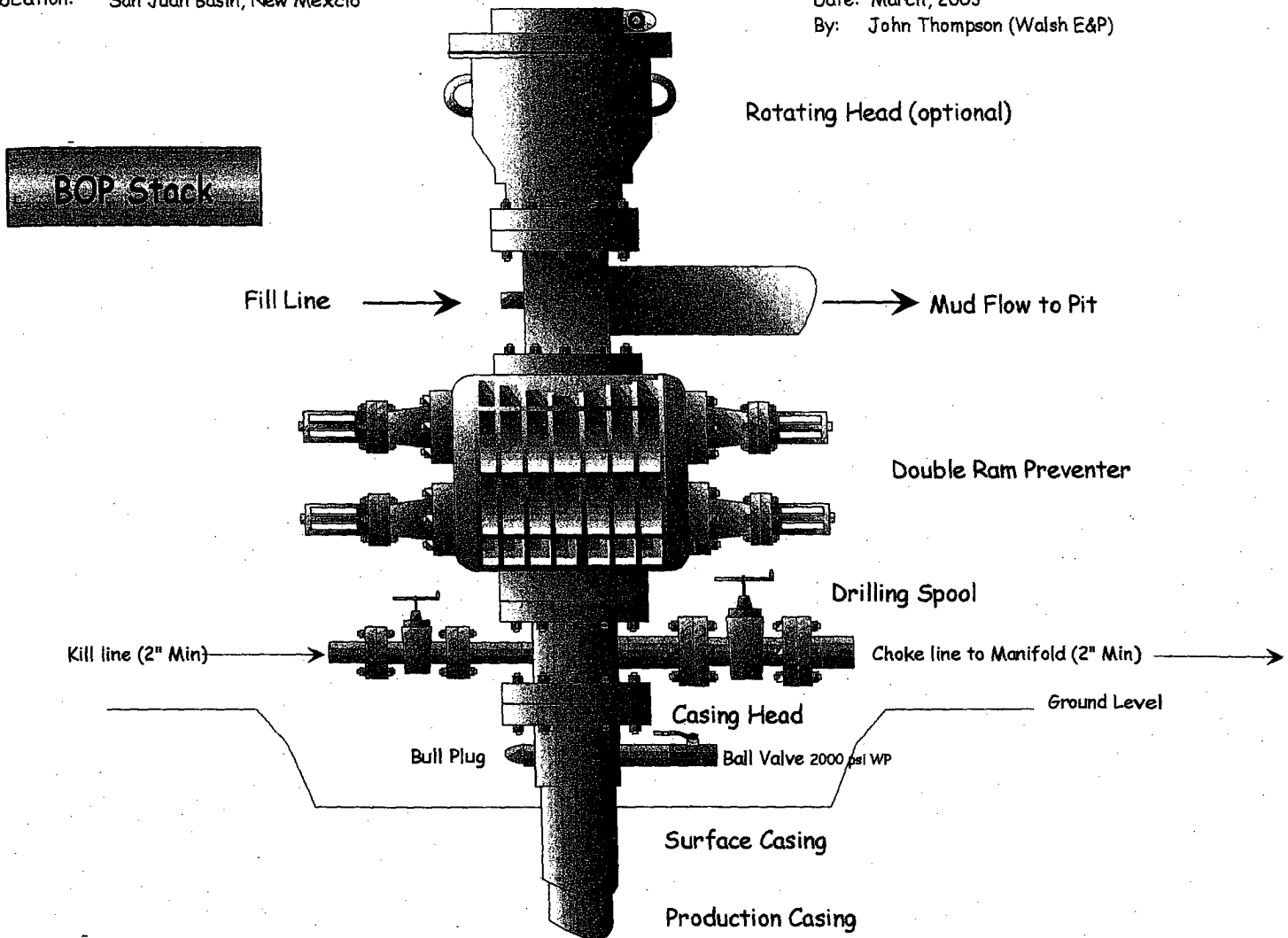
Attachment to Drilling Technical Program

Typical BOP setup

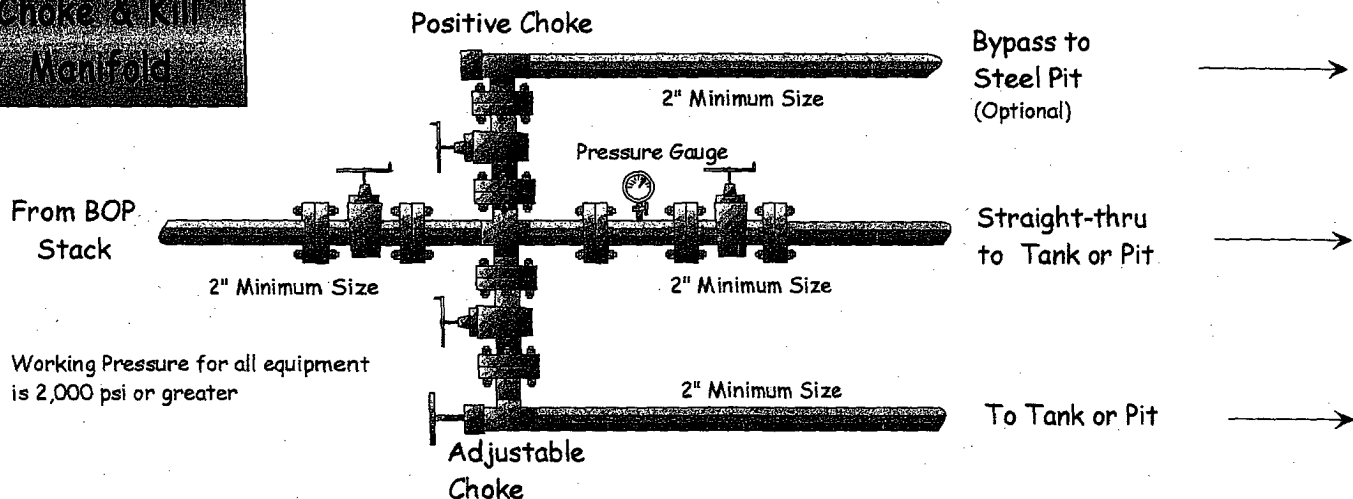
Location: San Juan Basin, New Mexico

Date: March, 2003

By: John Thompson (Walsh E&P)



Choke & Kill Manifold



Working Pressure for all equipment is 2,000 psi or greater

ANNULAR PREVENTER

