

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NOV 10 AM 10 15

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

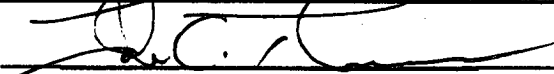
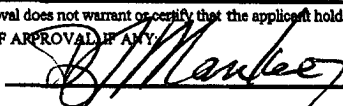
1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		070 FARMINGTON NM		5. LEASE DESIGNATION AND SERIAL NO. SF-078139
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE <input checked="" type="checkbox"/> ZONE <input type="checkbox"/> MULTIPLE <input type="checkbox"/> ZONE <input type="checkbox"/>				6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Energen Resources Corporation				7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892				8. FARM OR LEASE NAME, WELL NO. Federal 30-9 35 #1S
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At Surface 1835' FNL and 1140' FWL At proposed Prod. Zone				9. API WELL NO. 30045 32678
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* ~ 14 miles West of Aztec, NM				10. FIELD AND POOL OR WILDCAT Basin Fruitland Coal
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1140'		16. NO. OF ACRES IN LEASE 2560/1008 OF 6282120		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA E Sec. 35, T30N, R9W
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 400'		19. PROPOSED DEPTH 2600'		12. COUNTY OR PARISH San Juan County 13. STATE NM
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5698' GR		17. NO. OF ACRES ASSIGNED TO THIS WELL 320 N/2		20. ROTARY OR CABLE TOOLS Rotary
22. APPROX DATE WORK WILL START* As soon as permitted				
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24.0 ppf	+/- 300'	~266 cf Class "B" w/ 1/4#CF & 2% CaCl₂
7-7/8"	5-1/2"	15.5 ppf	+/- 2600'	~724 cf Lightwt & ~195 cf Class "B"

Energen Resources Corporation proposes to drill a vertical well to develop the Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans. The surface is under the jurisdiction of the Bureau of Land Management.

This location has been archaeologically surveyed by DCA (Division of Conservation Archaeology - Salmon Ruins). Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain road, pipeline and electrical right-of-ways. This well will require ~ 61' of new access road (see Pipeline & Well Plats #3 & #4).

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED 		TITLE John C. Thompson, Agent		DATE 11/9/2004
(This space for Federal or State office use)				
PERMIT NO. _____		APPROVAL DATE _____		
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 _____				
APPROVED BY 		TITLE AFM		DATE 2-14-05

***See Instructions On Reverse Side**

Title 18 U.S.C. Section 1001, makes 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.

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

NMOC

This action is subject to technical and
procedural review pursuant to 40 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-32678		² Pool Code	³ Pool Name UP FRUITLAND COAL
⁴ Property Code 300457	⁵ Property Name FEDERAL 30-9 35		⁶ Well Number 1S
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION		⁹ Elevation 5698'

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
E	35	30N	9W		1835	NORTH	1140	WEST	SAN JUAN

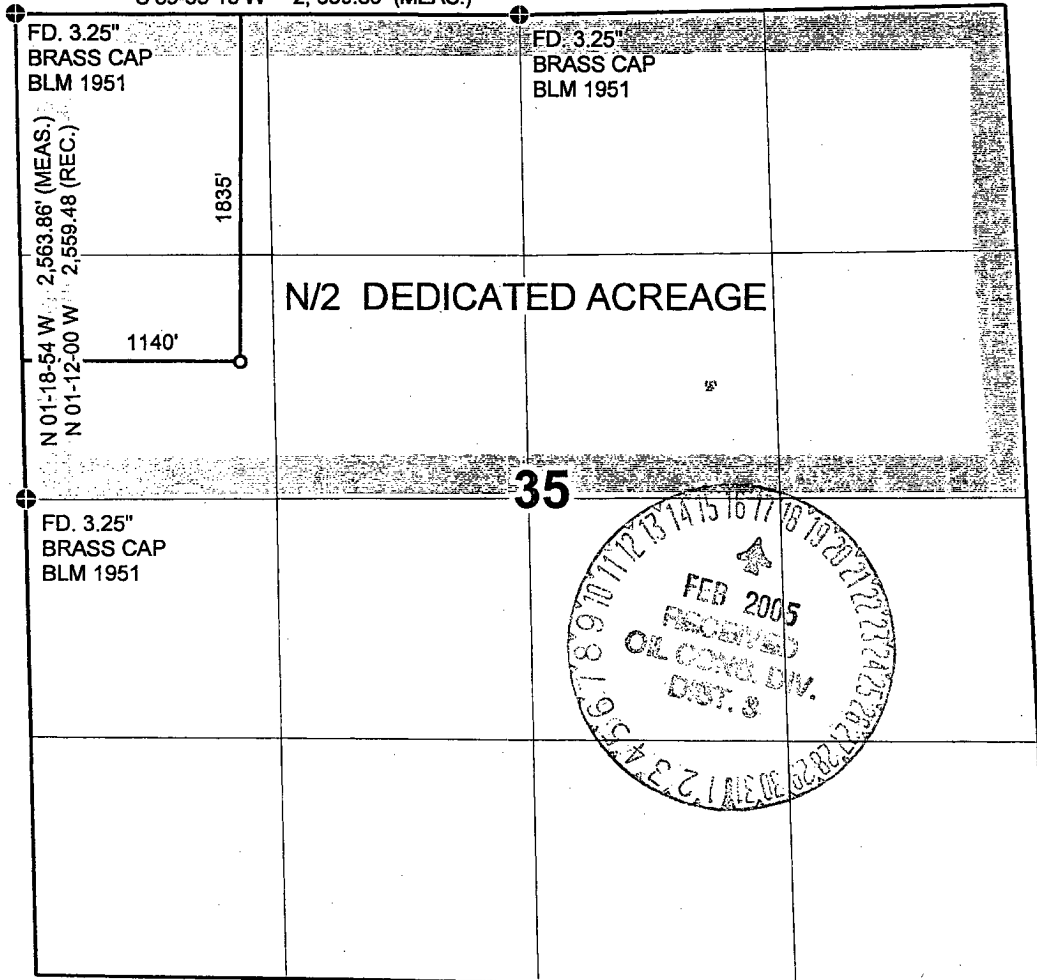
¹¹ Bottom Hole Location If Different From Surface

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	¹³ Joint or Infill	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

S 89-49-00 W 2,637.36' (REC.)
S 89-53-18 W 2,639.56' (MEAS.)

¹⁷ OPERATOR CERTIFICATION

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

[Signature]
Signature

John C. Thompson
Printed Name
Engineer/Agent
john@walsheng.net
Title and E-mail Address

11/09/04
Date

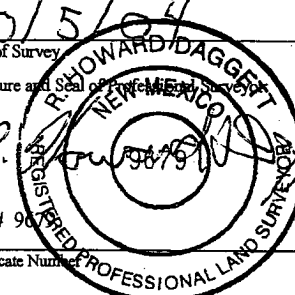
¹⁸ SURVEYOR CERTIFICATION

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.

10/5/04
Date of Survey

[Signature]
Signature and Seal of Professional Land Surveyor

NM # 90
Certificate Number



District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
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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

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

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 <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		WELL API NO. 5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/> 6. State Oil & Gas Lease No.
2. Name of Operator Energen Resources Corporation		7. Lease Name or Unit Agreement Name Federal 30-9 35
3. Address of Operator c/o Walsh Engineering & Production, 7415 E. Main, Farmington, NM 87402		8. Well Number No. 1S
4. Well Location Unit Letter <u>E</u> : <u>1835</u> feet from the <u>North</u> line and <u>1140</u> feet from the <u>West</u> line Section <u>35</u> Township <u>30N</u> Range <u>9</u> NMPM San Juan County		9. OGRID Number 162928
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5698' GR		10. Pool name or Wildcat Basin Fruitland Coal
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/> Pit type <u>Drilling Pit</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>>1000'</u> Pit Liner Thickness: <u>12</u> 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 <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> OTHER: <u>X</u>		SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/>	
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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.

Drilling Pit Permit Request

See APD for location of pit relative to wellhead. Note: location is on federal minerals and federal surface. Will close as per Energen Resources pit closure plan and NMOCD Guidelines in accordance with Rule 50.

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 John C. Thompson TITLE Engineer/Agent DATE 11/1/04

Type or print name _____ E-mail address: john@walsheng.net Telephone No. 327-4892

For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 34 DATE FEB 17 2005

Conditions of Approval (if any): _____

Operations Plan

October 18, 2004

Federal 30-9-35 #1S

General Information

Location	1835' fnl, 1140' fwl S35, T30N, R9W San Juan County, New Mexico
Elevations	5698' GL
Total Depth	2600' (MD)
Formation Objective	Basin Fruitland Coal

Formation Tops

Nacimiento	Surface
Ojo Alamo Ss	1255'
Kirtland Sh	1345'
Fruitland Fm	2050'
Top Coal	2205'
Bottom Coal	2400'
Pictured Cliffs Ss	2405'
Total Depth	2600'

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:

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 stack. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

Logging Program:

Open hole logs: Check with Greg Jennings

Mud logs: Check with Greg Jennings

Coring: None

Natural Gauges: None

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-300'	12 1/4"	8 5/8"	24.0 ppf	J-55 ST&C
Production	300'-2600'	7 7/8"	5 1/2"	15.5 ppf	J-55 LT&C
Tubing	0'-2390'		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Surface Casing: Texas Pattern Guide Shoe on bottom. 4 bow spring centralizers spaced every other joint from bottom.

Production Casing: Cement nose guide shoe with self fill insert float collar on top of bottom joint. 10 bow spring centralizers spaced every 2nd joint off bottom. Two turbolating centralizers at the bas of the Ojo Alamo.

Wellhead

8 5/8" 2000 x 5 1/2" Larkin casing head. 5 1/2" 2000 x 2" tubing head.

Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 266 ft³ 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 1/2 hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 400 sks TXI cement with 2.0 % CaCl₂ 0.30 % Halad-344, 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.0 ppg, 1.81 ft³/sk) and a tail of 155 sks of TXI cement with 0.30 % Halad-344, 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (13.5 ppg, 1.26 ft³/sk). (919 ft³ of slurry, 100 % excess to circulate to surface).

Other Information

- 1) This well will be a cased hole completion 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.

Nathan Smith
Drilling Engineer

Energen Resources Corp.

Well Control Equipment Schematic for 3M Service

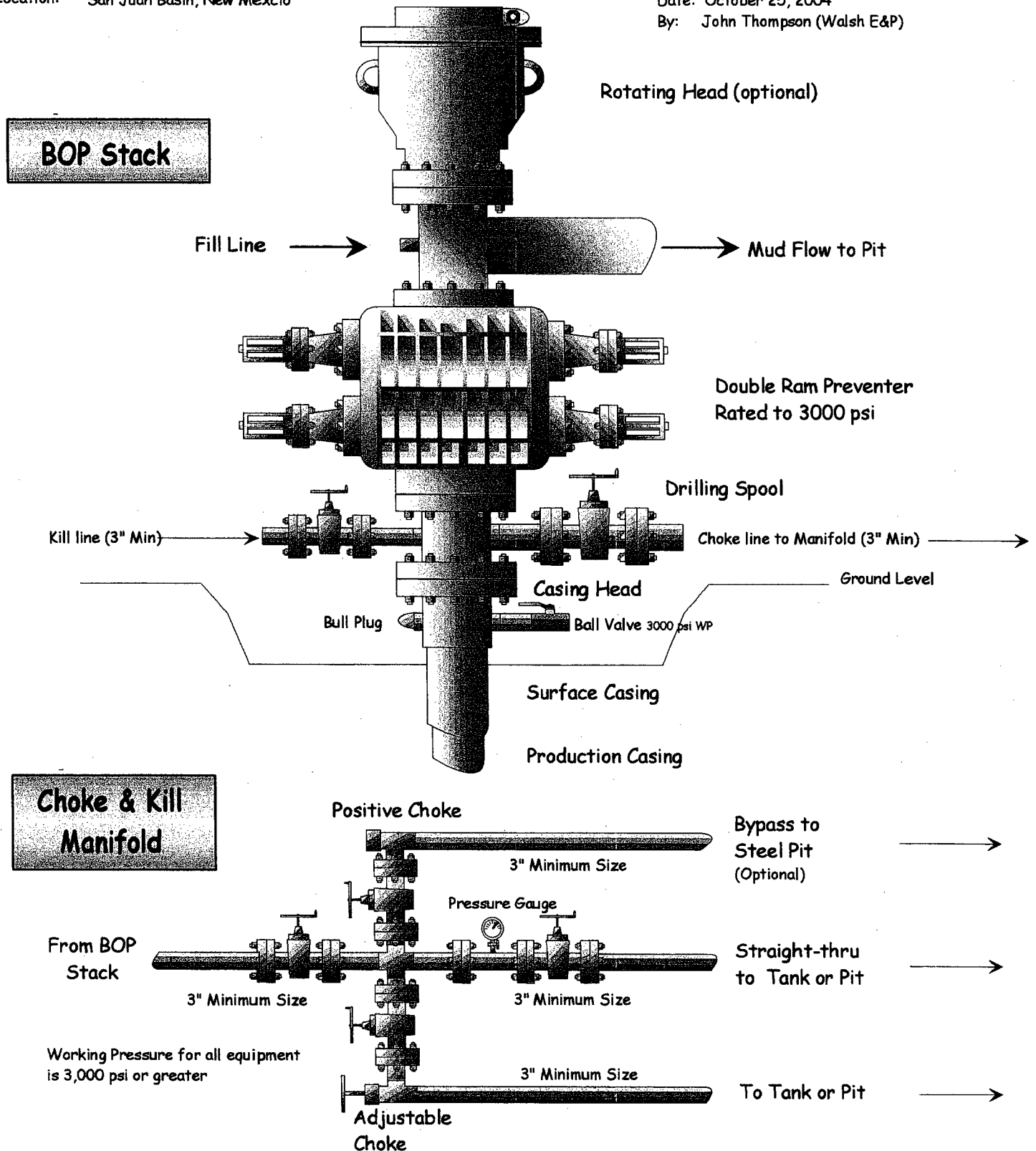
Attachment to Drilling Technical Program

Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

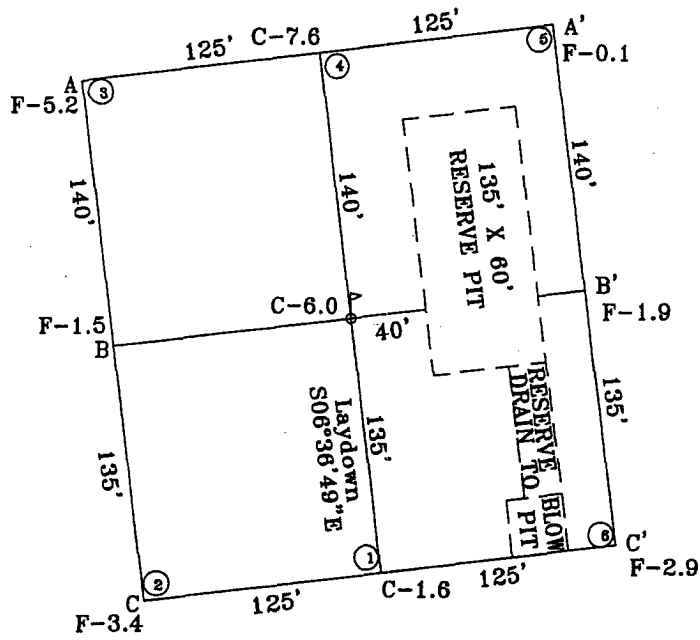
Date: October 25, 2004

By: John Thompson (Walsh E&P)



ENERGEN RESOURCES CORPORATION

FEDERAL 30-9 35 #1S
1835' FNL, 1140' FWL
LOCATED IN THE SW/4 NW/4 OF
SECTION 35, T30N, R9W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEVATION: 5698', NAVD 88



LATITUDE: 36°46'11"N
LONGITUDE: 107°45'18"W
DATUM: NAD 83

Plat #2

