

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires December 31, 1991

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

2004 SEP 8 AM 10 32

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	
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE <input checked="" type="checkbox"/> ZONE MULTIPLE <input type="checkbox"/> ZONE		8. FARM OR LEASE NAME, WELL NO. Federal #2S	
2. NAME OF OPERATOR Energen Resources Corporation		9. API WELL NO. 30-045-32572	
3. ADDRESS OF OPERATOR c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892		10. FIELD AND POOL OR WILDCAT Basin Fruitland Coal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *) At Surface 1300' FNL and 1200' FWL At proposed Prod. Zone		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA D Sec. 26, T32N, R8W	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* ~ 17 miles North of Navajo Dam, NM		12. COUNTY OR PARISH San Juan County	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1200'		13. STATE NM	
16. NO. OF ACRES IN LEASE 640		17. NO. OF ACRES ASSIGNED TO THIS WELL 320 W/2	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 440'		19. PROPOSED DEPTH 3711' 3651'	
20. ROTARY OR CABLE TOOLS Rotary		21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6749' GR	
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
12-1/4"	9-5/8"	32.3#	+/- 240'
8-3/4"	7"	23#	+/- 3411'
6-1/4"	5-1/2"	15.5#	+/- 3711'
QUANTITY OF CEMENT			
~153 cu.ft. Class "B" w/ 1/4#CF & 2% C			
~1009 cf Lightwt & ~124 cf Class "B"			
Open hole completion - No Cement			

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 (Divison 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 and pipeline right-of-ways. This well will require approximately 330' 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 [Signature] TITLE John C. Thompson, Agent DATE 9/7/2004

(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 Original Signed: Stephen Mason TITLE _____ DATE SEP 27 2004

***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.

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

NMOCD

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

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

SEP 08 2004

Bureau of Land Management
Farmington Field Office

REVENUE REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-32572		² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 300460	⁵ Property Name Federal 32-8-26		⁶ Well Number 2s
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation		⁹ Elevation 6749'

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
D	26	32N	8W		1300	North	1200	West	San Juan

¹¹ Bottom Hole Location If Different From Surface

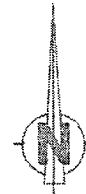
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 320 (W/2)	¹³ Joint or Infill	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

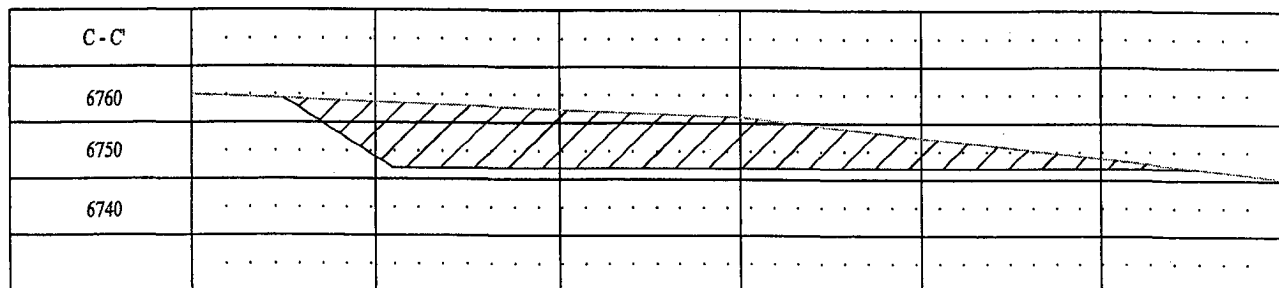
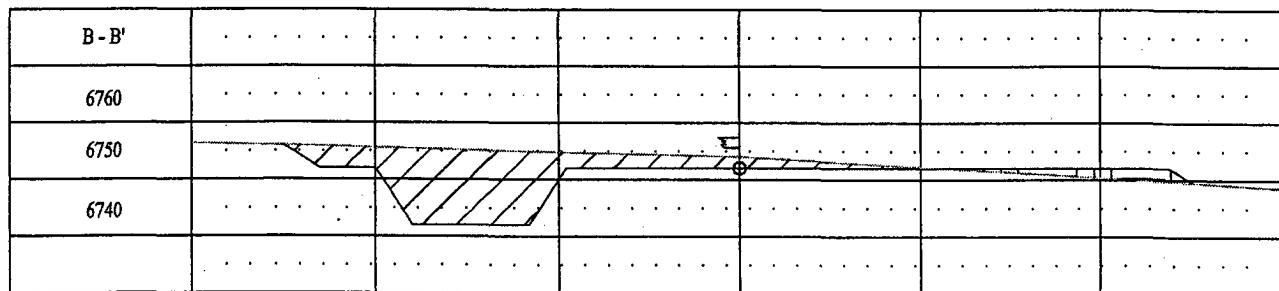
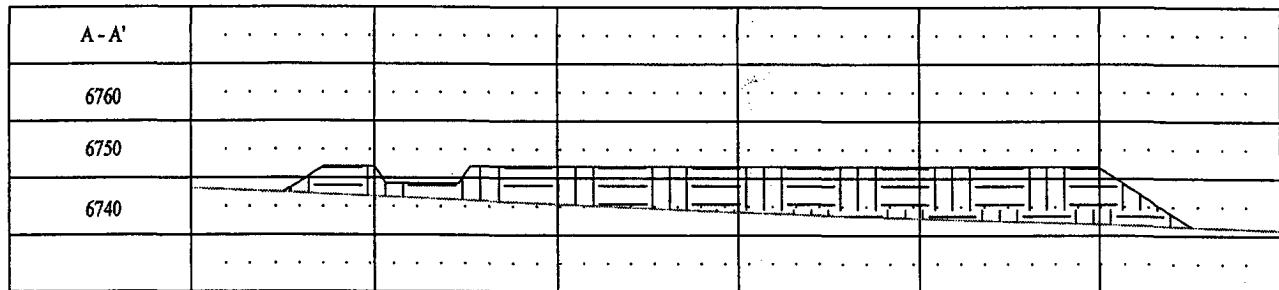
	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature John C. Thompson Printed Name Engineer/Agent john@valsheng.net Date and E-mail Address 8/25/04 Date
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that 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. Date of Survey SEP 2004 Signature and Seal of Professional Surveyor: NM # 14827 Certificate Number

ELEVATION: 6749', NAVD 88



LATITUDE 36°57'30"N
LONGITUDE 107°38'59"W
DATUM: NAD 83

Plat #2



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM6894

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

8. Well Name and No.
FEDERAL 26 2S

9. API Well No.
30-045-32572-00-X1

10. Field and Pool, or Exploratory
BASIN FRUITLAND COAL

11. County or Parish, and State
SAN JUAN COUNTY, NM

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: COAL BED METHANE

2. Name of Operator
ENERGEN RESOURCES CORPORATION
Contact: VICKI DONAGHEY
E-Mail: vdonaghe@energen.com

3a. Address
2198 BLOOMFIELD HIGHWAY
FARMINGTON, NM 87401
3b. Phone No. (include area code)
Ph: 505.325.6800 Ext: 238
Fx: 505.326.6112

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 26 T32N R8W NWNW 1300FNL 1200FWL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Total depth has been revised and will not penetrate the Pictured Cliffs.
New TD: 3651'



14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #36164 verified by the BLM Well Information System For ENERGEN RESOURCES CORPORATION, sent to the Farmington Committed to AFMSS for processing by ADRIENNE BRUMLEY on 09/17/2004 (04AXB3390SE)	
Name (Printed/Typed) VICKI DONAGHEY	Title PRODUCTION ASSISTANT
Signature (Electronic Submission)	Date 09/15/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Original Signed: Stephen Mason	Title	SEP 27 2004
Conditions of approval, if any, are attached. Approval of this notice 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.		Office

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

NMOC

Energen Resources Corporation

Operations Plan

Federal 26 No. 2S

(Note: The following may be adjusted on site based upon actual conditions)

1. Location

Location : 1300' fnl & 11200' fwl (nw nw)
Sec 26, T32N, R8W
San Juan County, New Mexico

Elevations : 6749' GL

Total Depth : ~~3871'~~ MD RKB
3711

Well Objective : Basin Fruitland Formation

2. Formation Tops

A. <u>Formation</u>	<u>Depth-KB</u>
San Jose Fm.	Surface
Nacimiento Fm.	1066'
Ojo Alamo Ss.	2406'
Kirtland Sh.	2486'
Fruitland Fm.	3241'
Top Coal	3351'
Base Coal	3651'
Pictured Cliffs Ss.	3651'
Total Depth	3711' 3657

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

Water and gas: 2486' – 3651'

B. Logging program: Induction/GR and Density logs at TD

3. Hazards

Overpressuring/H₂S

The Fruitland Coal in this area can be overpressured. Because of this, intermediate casing will be set above the main coal section. If excessive pressure is encountered before the intermediate casing setting depth, the mud system shall be sufficiently weighted to keep well from flowing.

Maximum expected BHP: 1500 psig.

No known H₂S zones will be penetrated in this well.

Lost Circulation

Lost circulation is not expected to be a problem. However, in the event lost circulation zones are encountered or hole stability problems develop, lost circulation material (LCM) will be on location to be used with any mud systems that may be needed to address the lost circulation zones. Also, lost circulation material will be used in the intermediate cement in attempt to minimize any lost circulation zones/problems that may be encountered during cementing of the intermediate string.

4. Drilling

A. Contractor: Aztec Well Service

B. Mud Program:

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

The production hole will be drilled with a fresh water/polymer mud system. The weighting material will be drill solids or if conditions dictate, barite. The maximum weight expected is 9.5 ppg.

C. Minimum Blowout Control Specifications

Double ram type or annular type 2000 psi working pressure BOP with a rotating head will be utilized. See the attached Exhibits #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.

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.

4. Casing & Materials

A. Casing

<u>String</u>	<u>Interval</u>	<u>Hole Size</u>	<u>Csg OD</u>	<u>Wt lb/ft</u>	<u>Grade</u>
➤ Surface	0'-240'	12-1/4"	9-5/8"	32.3	J-55/ST&C
➤ Intermediate	0'-3411'	8-3/4"	7"	23.0	J-55/ST&C
➤ Production	3311'-3711'	6-1/4"	5-1/2"	15.5	J-55/LT&C

B. Float equipment

I) Surface Casing: Texas Pattern Guide shoe on bottom. 3 bow type centralizers, spaced every other joint from bottom.

II) Intermediate Casing: 7" cement nose guide shoe with a 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 base of the Ojo Alamo.

II) Liner: 5-1/2": 5-1/2" cement guide shoe w/ insert float, run on bottom joint. No centralizers – open hole completion, no cement.

5. Cementing

Surface Casing: 9-5/8" – Use 130 sx (153 cu.ft.) of Class "B" with ¼#/sk celloflake and 2% CaCl₂. (yield: 1.18 cu.ft./sk; slurry weight: 15.6 ppg). Use 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

Intermediate Casing: 7" – Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 20 bbls of fresh water. Lead with 490 sx (1009 cu.ft.) of Class "B" with 2% SMS (sodium metasilicate) and ¼#/sk celloflake. (yield: 2.06 cu.ft./sk; slurry weight: 12.5 ppg). Tail with 105 sx (124 cu.ft.) of Class "B" with ¼#/sk celloflake (yield: 1.18 cu.ft./sk; slurry weight: 15.6 ppg). Total cement/hole volume is 1116 cu.ft. (use 100% excess to circulate cement to surface).

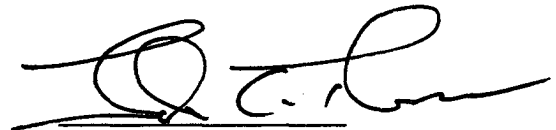
Liner: 5-1/2" – Open hole completion, no cement.

6. Completion

Well will be cavitaged. Surge well with air/gas and water/soap then flow back. Rotate and reciprocate drill string while pumping air/mist to clean out after surges. Repeat process until flow rates stabilize (no further increase). After the 5-1/2" liner is set the well will be selectively perforated and tested for production. If productive the well will be produced thru 2-3/8" tubing.

7. Surface Facilities

1. If well is productive, set separator, production tank (or water lines) and any related production equipment.
2. Set meter and tie well into pipeline.
3. Turn wellover to production department.
4. Rehabilitate as per the managing surface agency request.



John C. Thompson
Engineer

Energen Resources Corp.

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 24, 2004

By: John Thompson (Walsh E&P)

