

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

7 2009

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		Bureau of Land Management Farmington Field Office	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			
2. Name of Operator Energen Resources Corporation			
3a. Address 2010 Afton Place Farmington, New Mexico 87401		3b. Phone No. (include area code) (505)325-6800	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 700' FNL 700' FEL At proposed prod. zone			
14. Distance in miles and direction from nearest town or post office* 20 miles South of Bloomfield, NM		5. Lease Serial No. NMSF-078937	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 700'		6. If Indian, Allottee or Tribe Name	
16. No. of Acres in lease 320		7. Unit or CA Agreement Name and No.	
17. Spacing Unit dedicated to this well E/2		8. Lease Name and Well No. DAVIS #100	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1200'		9. API Well No. 3004534978	
19. Proposed Depth 2061'		10. Field and Pool, or Exploratory Basin Fruitland Coal	
20. BLM/BIA Bond No. on file		11. Sec., T., R., M., or Blk. and Survey or Area A NE Sec.13, T26N, R11W NMPM	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6463' GL		12. County or Parish San Juan	
22. Approximate date work will start* JUNE 2009		13. State NM	
23. Estimated duration 15 days			

24. Attachments

RCVD JAN 14 '10

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

OIL CONS. DIV.

- | | |
|--|---|
| 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM |

DIST. 3

25. Signature 	Name (Printed/Typed) JASON KINCAID	Date 05/7/09
Title Drilling Engineer		
Approved by (Signature) 	Name (Printed/Typed) J. Manley	Date 1/13/2010
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, or to make any such statement or representation within its jurisdiction.

PERMITS APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

*(Instructions on page 2)

(Continued on page 2)

FEB 04 2010

NMOCD

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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

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

1600 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

RECEIVED

MAY 6 7 2005

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

Bureau of Land Management

Farmington Field Office

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

¹ API Number 30045-34978		² Pool Code 71629	³ Pool Name Basin FCoal
⁴ Property Code 37794	⁵ Property Name DAVIS		⁶ Well Number # 100
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION		⁹ Elevation 6463'

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
A	13	26N	11W		700	NORTH	700	EAST	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 F/2	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.

S89°58'24"W 2637.73' (M)		S89°59'00"W 2637.73' (M)		5276.04' (R) S89°58'10"W		2636.56' (M)	
FD 2 1/2" BRASS CAP 1930 GLO 2651.36' (M)	FD 2 1/2" BRASS CAP 1930 GLO	ENERGEN RESOURCES DAVIS #100		700'	FD 2 1/2" BRASS CAP 1930 GLO	700'	
5302.44' (R) S00°19'27"W					2645.99' (M) N00°12'02"E 5301.12' (R)		
FD 2 1/2" BRASS CAP 1930 GLO N00°20'00"E	13				FD 2 1/2" BRASS CAP 1930 GLO N00°06'00"E		

17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *[Signature]* Date: 5-7-09

Printed Name: Jason Kincaid

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: 1/31/08

Signature and Seal of Professional Surveyor: *[Signature]*

NM #11952
Certificate Number

5/7/2009



OPERATIONS PLAN

WELL NAME.....Davis #100
JOB TYPE.....Vertical Fruitland Coal
DEPT.....Drilling and Completions
PREPARED BY.....Jason Kincaid

GENERAL INFORMATION

Surface Location	700 FNL 700 FEL
S-T-R	(A) Sec.13-T26N-R11W
County, State	San Juan, New Mexico
Elevations	6463' GL
Total Depth	2061' +/- (MD)
Formation Objective	Basin Fruitland Coal

FORMATION TOPS

Nacimiento	Surface
Ojo Alamo Ss	865'
Kirtland Sh	955'
Fruitland Fm	1357'
Top Coal	1653'
Base Coal	1861'
Pictured Cliffs	1883'
Total Depth	2061'

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:

A 2000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

Logging Program:

Open hole logs: 7-7/8" wellbore induction/gamma ray and density logs.
Mudlogs: none
Surveys: Surface and/or every 500' to TD.

5/7/2009



CASING, TUBING & CASING EQUIPMENT

String	Start Depth	End Depth	Wellbore	Size	Wt	Grade
Surface	0	150	12-1/4"	8-5/8"	24.0 lb/ft	J-55 ST&C
Production	0	2061	7-7/8"	5-1/2"	15.5 lb/ft	J-55 LT&C
Tubing	0	2061		2 3/8"	4.7 lb/ft	J-55

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on first joint with and insert float valve on top. Run standard bow spring centralizers as follows: every other joint from TD to surface.

Production Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff.

CEMENTING

Surface Casing: 105 sks Std (class B) with 2.0 % CaCl_2 and $\frac{1}{4}$ #/sk Flocele (15.6 ppg, 1.18 ft^3/sk ~~59 ft^3~~ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 750 psi for 30 min. **$V = 125 \text{ Ft}^3$**

Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 205 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and $\frac{1}{2}$ #/sk Flocele (12.3 ppg, 1.93 ft^3/sk) and a tail of 150 sks of Class G cement with 5.0 #/sk Gilsonite, and $\frac{1}{4}$ #/sk Flocele (15.4ppg, 1.18 ft^3/sk). (572 ft^3 of slurry to circulate to surface, 60% excess). **Test casing to 1500 psi for 30 min**

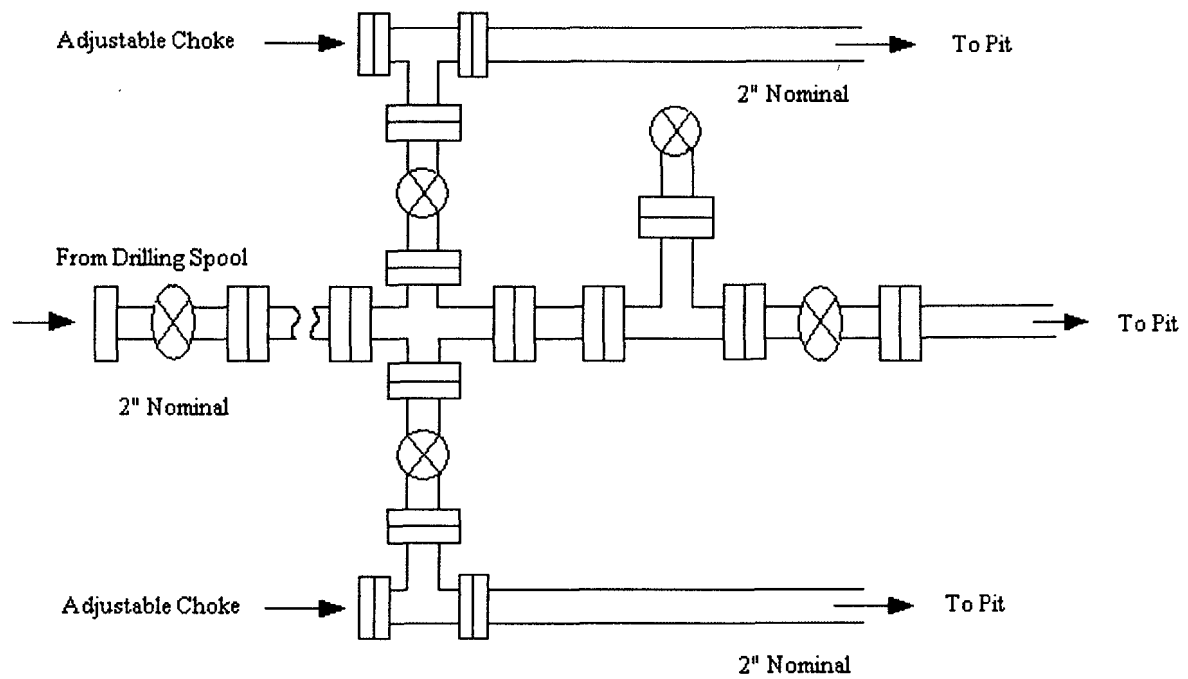
Pump a 10 bbls water, 20 bbls gelled water, 5 bbls water spacer ahead of cement

Cement volumes are subject to change if caliper logs are run and dictate otherwise.

OTHER INFORMATION

- 1) This well will be cased 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. Anticipated pressure is 300 psi.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

Energen Resources Corporation
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD

Energen Resources Corporation

Typical BOP Configuration for Gas Drilling

