

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

NOV 01 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

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		6. If Indian, Allottee or Tribe Name NMM 118139	
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.	
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401		8. Lease Name and Well No. C. J. Holder # 500S	
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30-045-34493	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1845' FSL, 700' FWL NW/SW At proposed prod. zone Lot 3		10. Field and Pool, or Exploratory Basin Fruitland Coal	
14. Distance in miles and direction from nearest town or post office* 3-3/4 miles southwest of Farmington, NM		11. Sec., T., R., M., or Blk. and Survey or Area L - Sec. 31, T29N, R13W NMM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 842'		12. County or Parish San Juan	
16. No. of Acres in lease 502.00		13. State NM	
17. Spacing Unit dedicated to this well 250.50 S/2		20. BLM/BIA Bond No. on file NM2707	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1600'		21. Estimated duration 15 days	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5940'		22. Approximate date work will start* February 12, 2008	

24. Attachments

RCVD JAN 15 '08

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

OIL CONS. DIV.

DIST. 3

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

25. Signature Vicki Donaghey	Name (Printed/Typed) Vicki Donaghey	Date 10/31/07
Title Regulatory Analyst		
Approved by (Signature) J. Monticor	Name (Printed/Typed)	Date 11/6/08
Title AFM PFO		

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 page 2)

NOTIFY AZTEC OGD & PERS.
PRIOR TO CASING & CEMENT

BLM'S 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

NMOCD

JAN 18 2008

8 1/16/08

AV

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

RECEIVED

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

NOV 01 2007

Form C-102

Energy, Minerals & Natural Resources Department

Revised October 12, 2005

OIL CONSERVATION DIVISION

Bureau of Land Management
Farmington Field Office

1220 South St. Francis Dr.

Santa Fe, NM 87505

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30045-34493		² Pool Code 71629		³ Pool Name Basin Fruitland Coal	
⁴ Property Code 21180		⁵ Property Name C.J. HOLDER			⁶ Well Number # 500S
⁷ OGRID No. 162928		⁸ Operator Name ENERGEN RESOURCES CORPORATION			⁹ Elevation 5940'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
L	31	29N	13W	(3)	1845	SOUTH	700	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 8.2 250.50	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.

(CALC. COR.
BY SGL PROP.)

S89°54'00"E
S89°31'37"E

4158.00' (R)
4130.23 (M)

¹⁶ FD. 1 1/2" ALUM. CAP HCS LS#9672		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: <i>Vicki Donaghey</i> Date: 10-2-07 Printed Name: Vicki Donaghey
10535.18' (R) 5267.59' (R) 5266.22' (M)		
5238.17' (M) 5241.19' (R) 10482.38' (R)		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: 8/29/07 Signature and Seal of Professional Surveyor: <i>W. Benally</i> NM #11952 Certificate Number
NAD 83 N 36.68095° W 108.25038° 700' ENERGEN RESOURCES C.J. HOLDER #500S		
N00°19'42"E N00°20'39"E R14W R13W	N00°10'42"E S00°19'00"W 1845' N89°55'01"W 1488.88' (M) N89°54'52"W 2656.55' (M)	
FD. 3 1/2" BRASS CAP GLO 1911		FD. 3 1/4" BRASS CAP BLM 1913
FD. 3 1/2" BRASS CAP GLO 1913		

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 87240
District II
1301 W. Grand Ave., 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 and Natural Resources

Form C-103
May 27, 2004

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

WELL API NO. <u>30.045.34493</u>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: C. J. Holder
8. Well Number # 500S
9. OGRID Number 162928
10. Pool name or Wildcat Basin Fruitland Coal

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	7. Lease Name or Unit Agreement Name: C. J. Holder
2. Name of Operator Energen Resources Corporation	8. Well Number # 500S
3. Address of Operator 2198 Bloomfield Highway, Farmington, NM 87401	9. OGRID Number 162928
4. Well Location Unit Letter <u>L</u> : <u>1845</u> feet from the <u>South</u> line and <u>700</u> feet from the <u>West</u> line Section <u>31</u> Township <u>29N</u> Range <u>13W</u> NMPM County <u>San Juan</u>	10. Pool name or Wildcat Basin Fruitland Coal
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5940' GL	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type <u>Drill</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>>160'</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 ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐
OTHER: Build drilling pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

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.

Energen Resources plans to build a lined pit according to "OCD Pit and Below-grade Tank Guidelines", as issued on November 1, 2004. Energen anticipates the submittal of a C-144 for closure of this pit in accordance with BLM and "OCD Pit and Below-grade Tank Guidelines".

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 Vicki Donaghey TITLE Regulatory Analyst DATE 10/31/07
E-mail address: vdonaghe@energen.com
Type or print name Vicki Donaghey Telephone No. 505.325.6800

For State Use Only

APPROVED BY [Signature] TITLE Deputy Oil & Gas Inspector DATE JAN 18 2008
Conditions of Approval, if any: District #3

Drilling Plan
October 5, 2007

CJ Holder #500S

General Information

Location	1845' fsl, 700' fwl nesw S31, T29N, R13W San Juan County, New Mexico
Elevations	5940' GL
Total Depth	1757' (MD)
Formation Objective	Basin Fruitland Coal

Formation Tops

Ojo Alamo Ss	Surface
Kirtland Sh	196'
Fruitland Fm	1202'
Top Coal	1437'
Bottom Coal	1557'
Pictured Cliffs Ss	1557'
Total Depth	1757'

Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" 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 (figure 1) 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: Induction/Gamma Ray and Density Logs

Coring: None

Surveys: Surface and/or every 500' to TD

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-150'	12 1/4"	9 5/8"	32.3 ppf	H-40 LT&C
Production	150'-1757'	8 3/4"	7"	23.0 ppf	J-55 LT&C
Tubing	0'-1757"		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

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: 100 sks Std (class B) with 2.0 % CaCl_2 and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 59 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 600 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 210 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.93 ft³/sk) and a tail of 135 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (15.4ppg, 1.18 ft³/sk). (564 ft³ of slurry, 100 % excess to circulate to surface).

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

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.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

Anticipated BHP \approx 300 psi

ENERGEN RESOURCES CORPORATION

C.J. HOLDER #500S

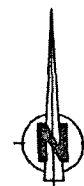
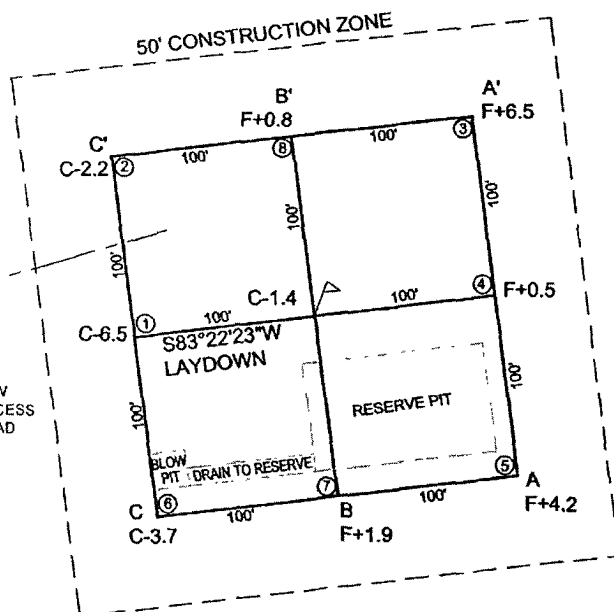
1845' FSL & 700' FWL

LOCATED IN THE NE/4 SW/4 OF SECTION 31,

T29N, R13W, N.M.P.M.,

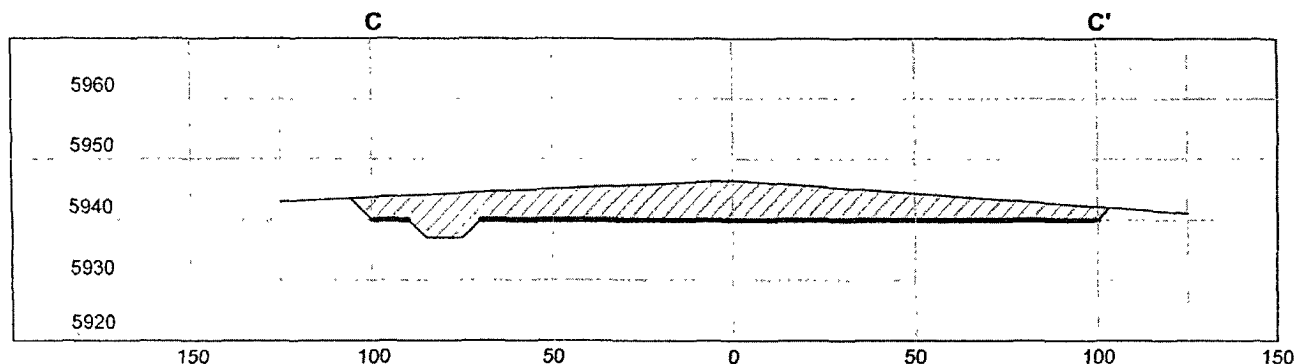
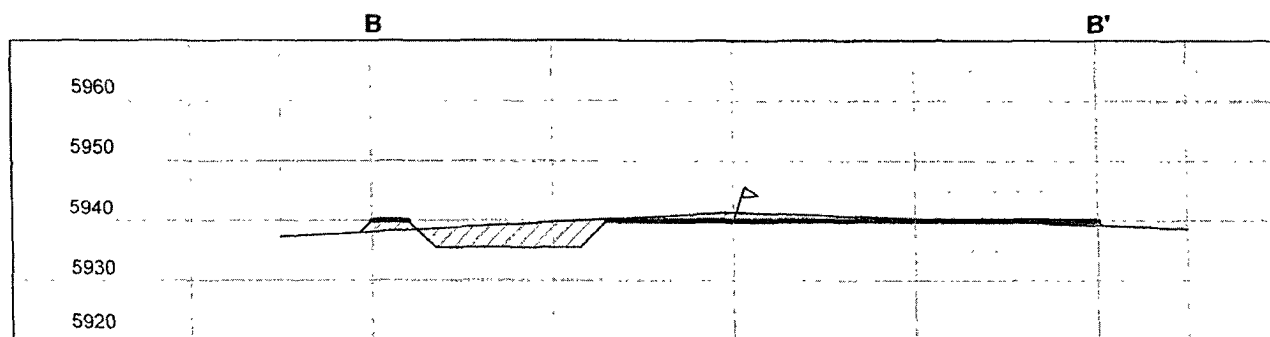
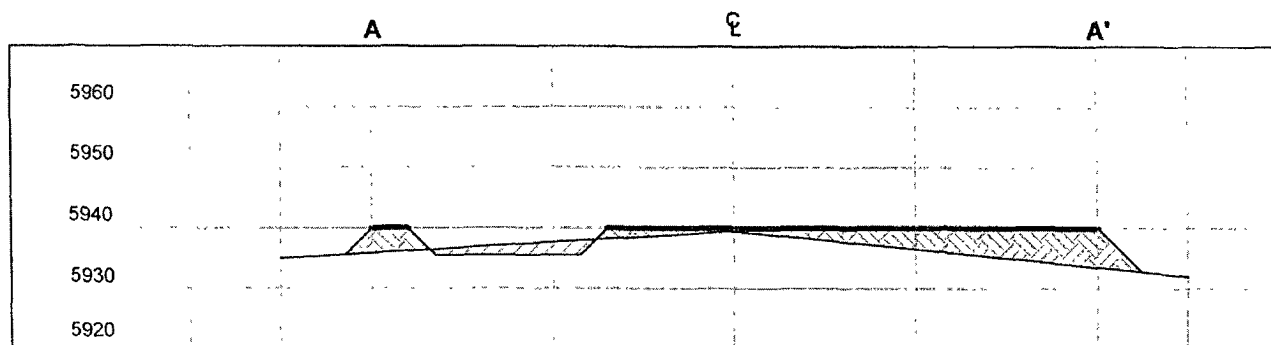
SAN JUAN COUNTY, NEW MEXICO

ELEVATION: 5940', NAVD 88



Scale: 1"=100'

LATITUDE: 36.68095 N
LONGITUDE: 108.25038 W
DATUM: NAD 83



HORIZ. SCALE: 1"=50'
VERT. SCALE: 1"=30'

Red Skies Surveying & Mapping, Inc.

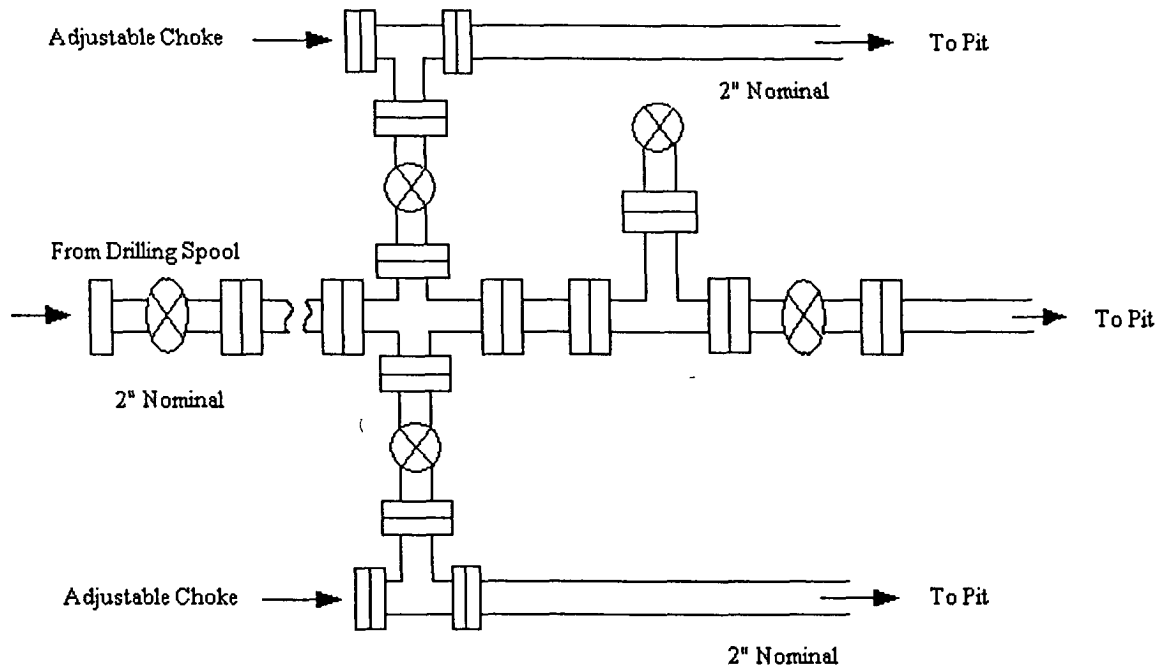
A Native American Owned Company

101 Fauver Lane, Bloomfield, New Mexico 87413

Phone/Fax: (505) 632-8906 Cell No: (505) 793-5325

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

