

Please Process as an APD-ROW

Form 3160-3  
(September 2001)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER


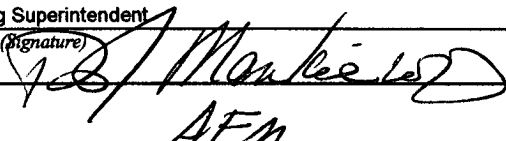
FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

1a. Type of Work: <input type="checkbox"/> Oil Well <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF - 077865	
1b. Type of Well: <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Energen Resources Corporation, an Energen Company		7. If Unit or CA Agreement, Name and No.	
3a. Address 2198 Bloomfield Highway Farmington, New Mexico, 87401		8. Lease Name and Well No. Candelaria 29-10-22 #3	
3b. Phone No. (include area code) 970 326-6191		9. API Well No. 30-045-32575	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NESE: 1650 FSL 905 FEL Lat. 36° 42'33" Long. 107° 51'59" At proposed prod. zone same		10. Field and Pool, or Exploratory Basin Fruitland Coal	
14. Distance in miles and direction from nearest town or post office* 2 1/2 miles west, southwest of Blanco, NM		11. Sec., T., R., M., or Blk. and Survey or Area I Sec. 22 T. 29N., R. 10 W. NMPM	
15. Distance from proposed* location to nearest property or lease line, 905 feet from east line (Also to nearest drg. unit line, if any)		12. County or Parish San Juan County	
16. No. of Acres in lease 598.60		13. State NM	
17. Spacing Unit dedicated to this well 320 S/2			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 128 feet to Burlington Resources Inc., Albright #7E		19. Proposed Depth 2050'	
20. BLM/BIA Bond No. on file B2918255			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5609 GL		22. Approximate date work will start* February, 2005	
23. Estimated duration 30 days			

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.  | 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 	Name (Printed/Typed) Mr. Doug Thomas	Date 9/8/04
Title Drilling Superintendent		
Approved by (Signature) 	Name (Printed/Typed) AFM	Date 10/13/04
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 as to any matter within its jurisdiction.

\*(Instructions on reverse)

NMOCD

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".

☐ AMENDED REPORT

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

2 RECEIVED

SEP 01 2004

## WELL LOCATION AND ACREAGE DEED OF DONATION

**Office of Land Management  
Farmington Field Office**

<sup>1</sup> API Number 30045-32575		<sup>2</sup> Pool Code 71629	<del>Farmington Field Office</del> Basin Fruitland coal	
<sup>4</sup> Property Code 34359	<sup>5</sup> Property Name Candelaria 29-10-22			<sup>6</sup> Well Number # 3
<sup>7</sup> OGRID No. 162928	<sup>8</sup> Operator Name ENERGEN RESOURCES CORPORATION			<sup>9</sup> Elevation 5609

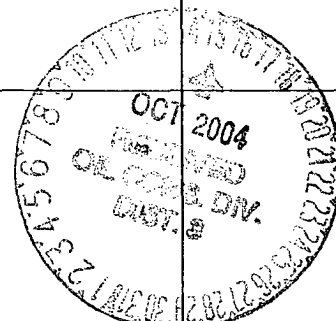
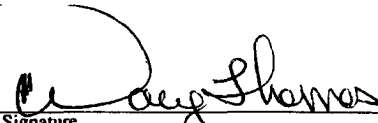
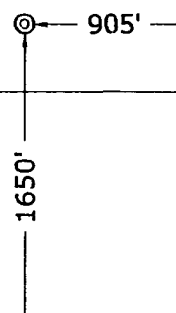
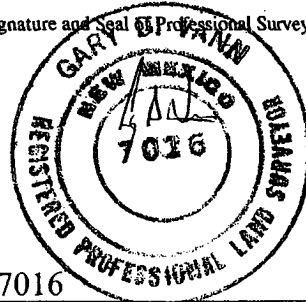
## <sup>10</sup> Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	22	29 N	10 W		1650	SOUTH	905	EAST	SAN JUAN

## " Bottom Hole Location If Different From Surface

7	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.				

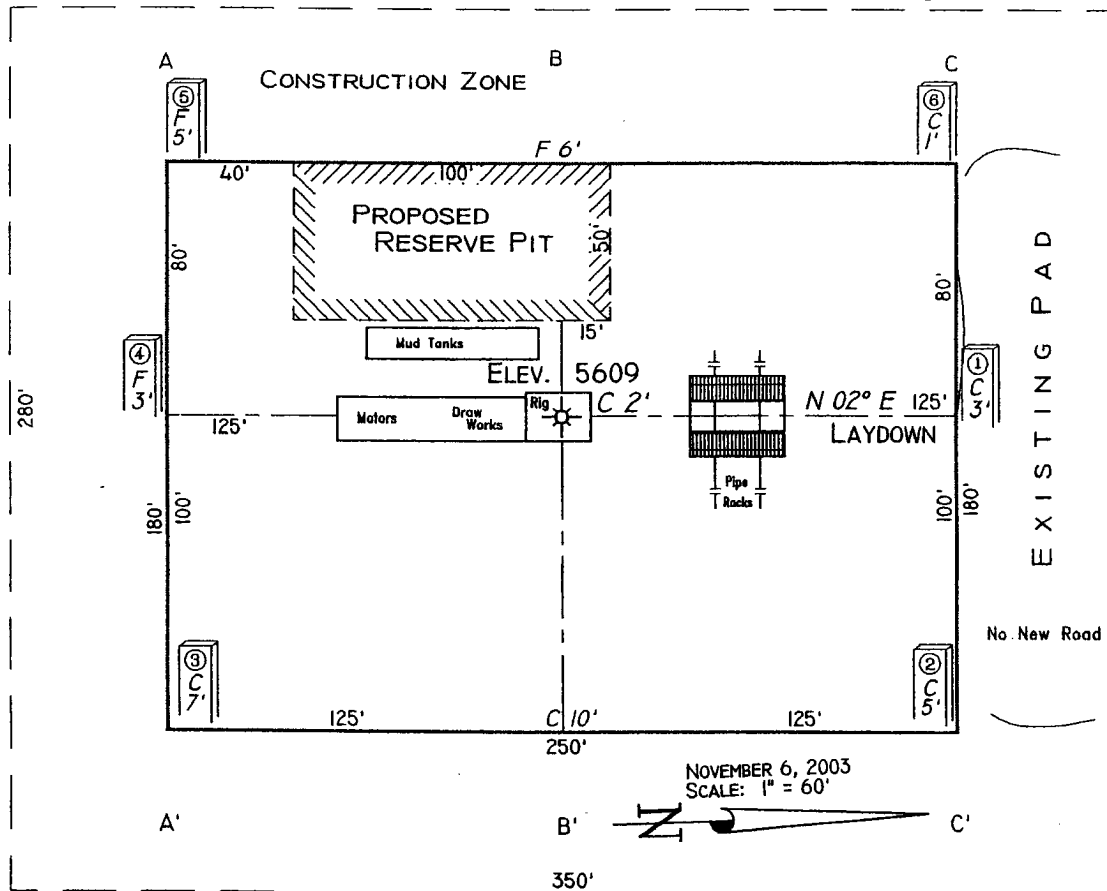
**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

<div>16</div> <div>2646 (R)</div>	<div>5288 (R)</div> <div>22</div> <div></div>	<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div> Signature <b>DOUG T. THOMAS</b> Printed Name <b>Drilling Superintendent</b> Title <b>9/3/04</b> Date</div>
<div>2694 (R)</div>	<div>5287 (R)</div> <div></div>	<div>18 SURVEYOR CERTIFICATION</div> <div>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.</div> <div><b>November 6, 2003</b> Date of Survey Signature and Seal of Professional Surveyor  <b>7016</b> Certificate Number</div>

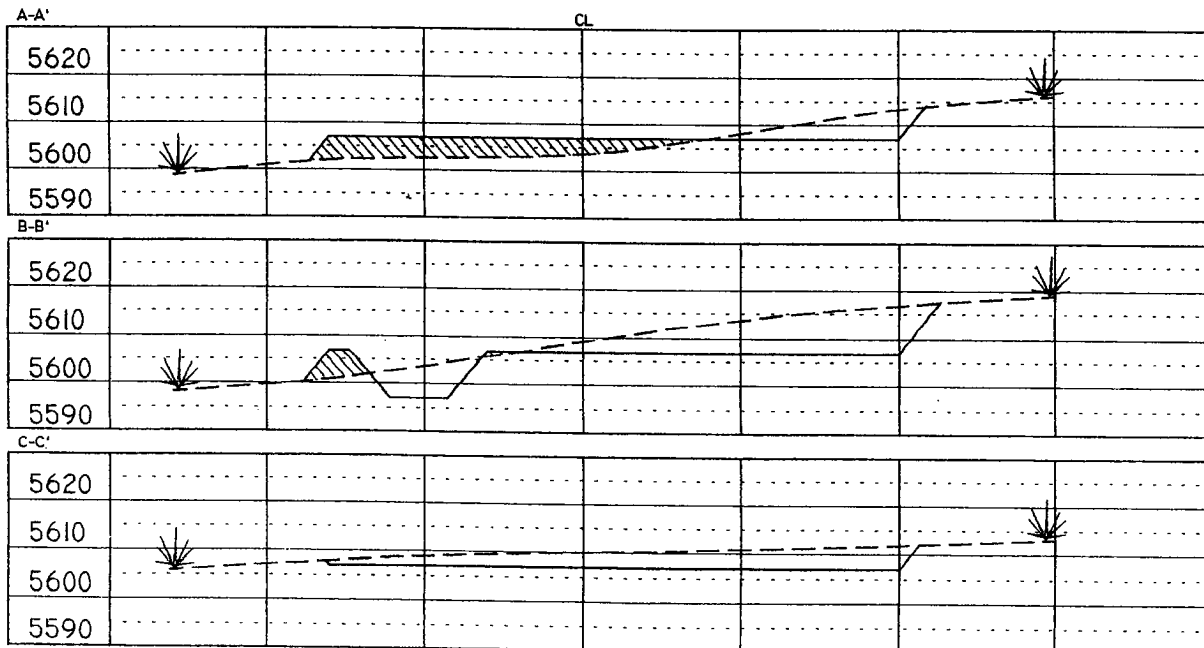
**PAD LAYOUT PLAN & PROFILE**  
**ENERGEN RESOURCES CORPORATION**  
 Candelaria 29-10-22 # 3  
 1650' F/SL 905' F/EL  
 SEC. 22, T29N, R10W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

Plat #4 Pad Layout

Lat: 36°42'33"  
 Long: 107°51'59"



Area of Construction Zone - 280'x350' or 2.25 acres, more or less.



SCALE: 1"=60'-HORIZ.  
 1"=40'-VERT.

NOTE: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires March 31, 2007

## 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.

2004 OCT

SUBMIT IN TRIPLICATE - Other instructions on reverse side

RECEIVED

070 FARM

## 1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

## 2. Name of Operator

ENERGEN RESOURCES CORPORATION

## 3a. Address

2198 Bloomfield Highway, Farmington, NM 87401

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1650' FSL, 905' FEL, sec 22, T 29 N, R 10 W NMEM

## 5. Lease Serial No.

NMSF-077865

## 6. If Indian, Allottee or Tribe Name

H PM 3 30

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

FARMINGTON NM

## 8. Well Name and No.

Candelaria #3  
29-10-22

## 9. API Well No.

30-045- 32575

## 10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

## 11. County or Parish, State

San Juan N.M.

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

## TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

## TYPE OF ACTION

- |  |   |  |   |
|--|---|--|---|
| <input type="checkbox"/> Acidize                 | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing            | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input type="checkbox"/> Other          |
| <input checked="" type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
| <input type="checkbox"/> Convert to Injection    | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

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 final site is ready for final inspection.)

The following changes are to reply to ref. #3162.3-1 (7100) dated Sept. 23, 2004 . TD depth Has changed to 2096'. New cmt volumes are shown below. Also 5 1/2" casing will change from 17# to 15.5#

## Nacimiento Fm. Surface

Ojo Alamo Ss. 766'

Kirtland 936'

Fruitland Fm 1651'

Pictured Cliffs 1946'

Total Depth 2096'

Surface Casing and cement will stay the same.

Prod. Casing will change to 15.5# J-55 LTC

Prod string will be cmt as follows:

Per flush w/20 sks of TXI, 10# sk/gilsonite, 1/2# flocele, 3/10% Halad 344, 2% CC, mix @ 10#/gal.

Lead Cmt w/226 sks of TXI, 10#gil, 1/2# flocele, 3/10 % Halad 344, 2% c.c. mixed at 12#/gal

Tail Cmt 165 sks Class B ,2% CaCl, 1/4#/sk Celloflack

## 14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) DOUG THOMAS

## Title

Drilling Superintendent

Date 10/1/04

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

## Approved by

## Title

## Date

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 these rights in the subject lease which would entitle the applicant to conduct operations thereon.

## Office

Energen Resources Corporation  
2198 Bloomfield Highway  
Farmington, NM 87401  
(505) 326-6191

Candelaria 29-10-22 #3  
NESE Sec 22-T29N-R10W  
1650' FSL & 905' FEL  
San Juan County, New Mexico

### **EIGHT POINT DRILLING PROGRAM**

1. Estimated Formation Tops:

Ojo Alamo	600'
Kirtland	750'
Fruitland Coal	1600'
Pictured Cliffs	1900'
Total Depth	2050'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas)	1750'
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3. Minimum Specifications for Pressure Control Equipment:

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

A 3000 psig double ram hydraulic BOP will be used (see attached diagram). Since maximum anticipated formation pressure is 1200 psig, accessories to the BOP will meet BLM requirements for a 2000 psig system (exhibit 1). The accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill line, kill line and line to choke manifold will be 2". BOP will be function tested every 24 hours and will be recorded on IADC log.

Surface casing will be tested to 1500 psig for 30 minutes.

## Eight Point Drilling Program - Candelaria 29-10-22 #3

### Page 2

Accessories to BOPE will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, string float at bit, 3000 psig choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge.

#### 4. Casing and Cementing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg Size</u>	<u>Wt. Grd. Jt</u>
12-1/4"	0-300'	8-5/8"	24#, J-55, STC
7-7/8"	0-2050'	5-1/2"	17#, J-55, LTC

Surface Casing will be cemented with 210 sx (248 cu ft) class B w/3% CaCl and 1/4#/sx of celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Cement volumes include excess to circulate cement to surface. A guide shoe, insert float and three (3) centralizers will be used. WOC time is 8 hours. The casing will be pressure tested to 1500 psig.

Production Casing: Lead cement will be 185sx 65/35 poz with 6% gel, 2% CaCl and 1/4#/sx celloflake (Yield = 1.92 cuft/sx, Weight = 12.6#/gal). Tail cement will be 165 sx Class B containing 2% CaCl and 1/4#/sx celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Total cement = 545 cuft. Cement volume includes excess to circulate cement to surface. In the event cement is not circulated a temperature survey will be run to determine the actual cement top, as required. Cementing equipment will include a guide shoe, float collar and 10 centralizers. Class G or H cement may be used depending on availability of Class B.

#### 5. Mud Program:

A native water based mud system (FW) will be used initially followed by a low-solids, non-dispersed gel system (LSND) to condition the hole for logs. Adequate amounts of lost circulation and weighting material will be on location if needed as well as sorbitive agents to handle potential spills of fuel or lubricants.

<u>Depth</u>	<u>Type</u>	<u>Wt (ppg)</u>	<u>Vis (sec)</u>	<u>Wtr loss</u>
0-300'	FW	± 8.5	30-33	NC
300'-TD	LSND	± 8.7-9.5	30-50	8-10 cc

## **Eight Point Drilling Program - Candelaria 29-10-22 #3**

### **Page 3**

#### **6. Testing, Coring and Logging Program:**

No DST's or cores are planned. Openhole logs will include GR, Induction, Density and Caliper Logs. The GR-Density logs will be run from TD to the top of the Fruitland formation. GR-Induction-Caliper logs will be run from TD to the bottom of the surface casing.

#### **7. Anticipated Abnormal Pressures and Temperatures:**

No abnormal pressures or temperatures are expected in this well. Maximum anticipated Fruitland reservoir pressure is 1200 psig with a normal temperature gradient.

#### **8. Operations:**

Anticipated spud date is February 1, 2005, or as soon as permits are received and work can be scheduled. Estimated drilling time is 7 days. The Fruitland will be completed as a cased hole completion, perforated and hydraulically fracture stimulated. Completion operations are expected to take 7 – 10 days and will commence as soon after completion of drilling operations and scheduling allow.

## 2-M SYSTEM

