

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0136  
Expires: November 30, 2000

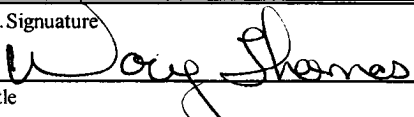
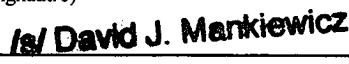
## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF-079488A	
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 checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.	
3a. Address 2198 Bloomfield Highway, Farmington, New Mexico		8. Lease Name and Well No. Carson 13	
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 3003927558	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1400' FNL, 790' FWL At proposed prod. zone		10. Field and Pool, or Exploratory Blanco Measverde	
14. Distance in miles and direction from nearest town or post office* Nine (9) miles NE of Gobernador, New Mexico		11. Sec., T., R., M., or Blk. and Survey or Area E Sec. 32, T30N, R4W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 790'		12. County or Parish Rio Arriba	
16. No. of Acres in lease 1786.72		13. State NM	
17. Spacing Unit dedicated to this well W/2 302.36ac		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000'	
19. Proposed Depth 7171		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7509' G.L.		22. Approximate date work will start* July 2003	
23. Estimated duration 12 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) Doug Thomas	Date 7/11/02
Title Drilling Completion Foreman		
Approved by (Signature) 	Name (Printed/Typed) David J. Mankiewicz	Date FEB - 3 2004
Title Office		

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)

NMOC

District I  
PO Box 1980, Hobbs, NM 88241-1980

STATE OF NEW MEXICO  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

District II  
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

PO Box 2088  
Santa Fe, NM 87504-2088

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number: <b>30-039-27558</b>	*Pool Code: 72319	*Pool Name: BLANCO MESAVERDE
*Property Code: <b>21185</b>	*Property Name: CARSON	*Well Number: 13
*GRID No. 162928	*Operator Name: ENERGEN RESOURCES CORPORATION	*Elevation: 7509'

<sup>10</sup> Surface Location

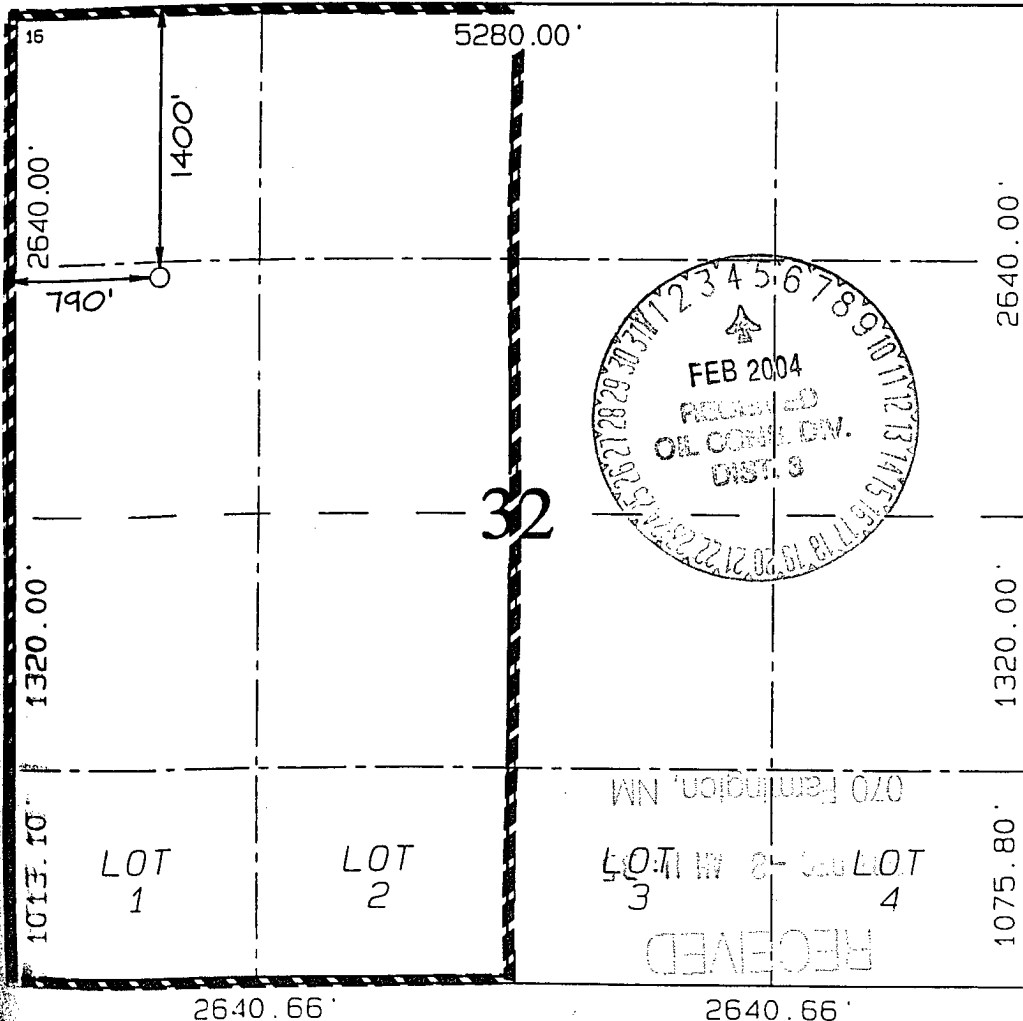
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	32	30N	4W		1400	NORTH	790	WEST	RIO ARriba

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 302.36 Acres - W/2	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



<sup>17</sup> OPERATOR CERTIFICATION

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

*Don Graham*  
Signature

Don Graham

Printed Name  
Production Superintendent

Title

Date  
7-15-02

<sup>18</sup> 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: MAY 28, 2002

Signature and Seal of Professional Surveyor



*JASON C. EDWARDS*

Certificate Number 15269

## OPERATIONS PLAN

WELL NAME: Carson #13

LOCATION: 1400' FNL, 790' FWL, Section 32, T30N, R4W, Rio Arriba County, NM

FIELD: Blanco Mesaverde

ELEVATION: 7509' GR

### FORMATION TOPS:

Surface	San Jose	Huerfanito Benonite	5211
Nacimiento	2346	Cliff House	6071
Ojo Alamo	3601	Menefee	6376
Kirtland	3831	Point Lookout	6621
Fruitland	4037	Mancos Sh	7116
Pictured Cliffs	4251		
Lewis	4546	Total Depth	7171

### LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate: None

Inter TD to total depth: Temp/HRI/CNT; LDT/GR, MRIL

Mud Logs: None

Coring: None

Natural Gauges: Every 500' from intermediate T. D. to T. D.

MUD PROGRAM: Fresh water low solids mud from surface to intermediate T. D. Air/mist from intermediate casing point to T. D.

### CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT.</u>	<u>GRADE</u>
12 ¼"	200'	9 5/8"	36#	J-55
8 ¾"	4771'	7"	20 & 23#	J-55
6 1/8"	4621'-7171'	4 ½"	10.5#	J-55

### TUBING PROGRAM:

7050	2 3/8"	4.7	J-55
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WELLHEAD: 11" 3000 x 9 5/8" casing head. 11" 3000 x 7 1/16" 3000 xmas tree.

### BOP 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 the stack. A 2" nominal, 2000 psi minimum choke manifold will be used.

### CEMENTING:

9 5/8" surface casing - Cement with 110 sks Class B Cement with 1/4# flocele/sk and 2% calcium chloride (130 cu. ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600# for 30 minutes.

Texas Pattern Guide Shoe on bottom. 3 bow type centralizers spaced throughout the string.

7" intermediate casing:

Cement with 495 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 100 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (1076 cu. ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs. If cement does not circulate, run temperature survey in 8 hrs. to determine TOC. Test casing to 1200 psi for 30 minutes.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 10 bow spring centralizers spaced every 3rd joint off bottom. Two turbolating centralizers at the base of the Ojo Alamo.

4 1/2" Production Liner

Cement with 285 sks 50/50 poz with 2% gel, 5 PPS gilsonite, .4% halad - 9 and 1/4# flocele/sk (360 cu. ft., 50% excess to tie into intermediate casing string). WOC 18 hrs prior to completion.

Cement nose guide shoe on bottom with float collar on top of shoe joint.

### OTHER INFORMATION:

- 1) The Blanco Mesa Verde will be completed.
- 2) No abnormal temperatures or pressures are anticipated.
- 3) Anticipated pore pressure for the Fruitland Coal is 800, Pictured Cliffs 900 and the Mesaverde is 1100.
- 4) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 5) This gas is dedicated.