

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM 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-079487A
1b. Type of Well <input type="checkbox"/> Oil 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		7. Unit or CA Agreement Name and No. 21185
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401	3b. Phone No. (include area code) (505) 325-6800	8. Lease Name and Well No. Carson 11
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1680' FNL, 1650' FWL At proposed prod. zone		9. API Well No. 30-034-26881
14. Distance in miles and direction from nearest town or post office* 10 miles Northesast of Gobernador, New Mexico		10. Field and Pool, or Exploratory East Blanco Pictured Cliffs
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1650'		11. Sec., T., R., M., or Blk. and Survey or Area F Sec. 21, T30N, R4W, N.M.P.M.
16. No. of Acres in lease 1819.52		12. County or Parish Rio Arriba
17. Spacing Unit dedicated to this well 160 NW/4		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2300'		19. Proposed Depth 4719'
20. BLM/BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7522' GL	22. Approximate date work will start* May 2002	23. Estimated duration 10 Days

24. Attachments

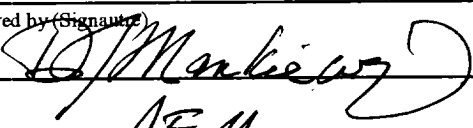
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

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|---|--|
| 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) Don Graham	Date 12/11/01
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Title

Production Superintendent

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 2/6/02
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)

SC

DRILL IS OFFERED TO ALL INTERESTED PARTIES  
SUBJECT TO COMPLETION WITH ALL REQUIRED  
GENERAL REQUIREMENTS

procedural review pursuant to 43 CFR 3160.3  
and appeal pursuant to 43 CFR 3160.4.

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

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>30039-26881</b>	'Pool Code <b>72400</b>	'Pool Name <b>Blanco Pictured Cliffs, East</b>
'Property Code <b>21185</b>	'Property Name <b>CARSON</b>	'Well Number <b>11</b>
'OGRID No. <b>162928</b>	'Operator Name <b>ENERGEN RESOURCES CORPORATION</b>	'Elevation <b>7522'</b>

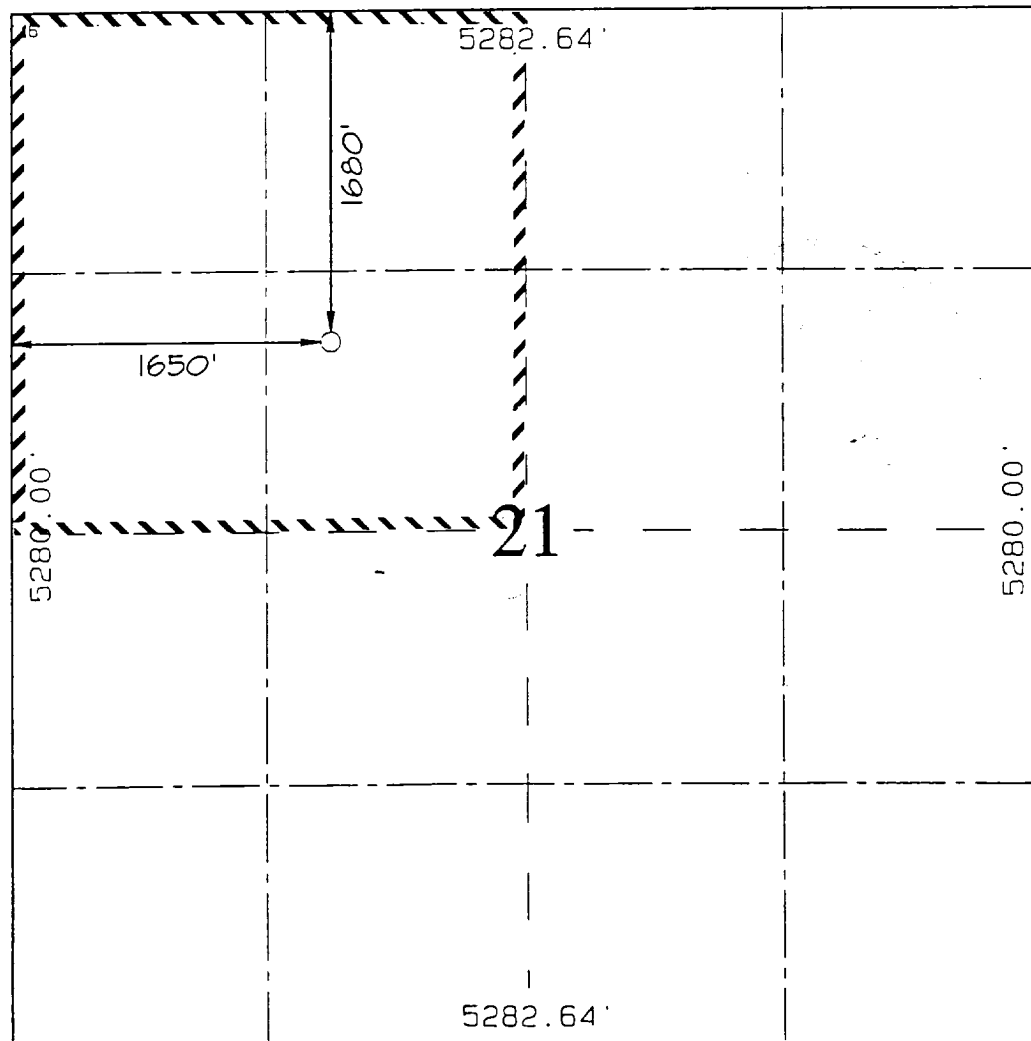

<sup>10</sup> Surface Location

UL or lot no. <b>F</b>	Section <b>21</b>	Township <b>30N</b>	Range <b>4W</b>	Lot Idn	Feet from the <b>1680</b>	North/South line <b>NORTH</b>	Feet from the <b>1650</b>	East/West line <b>WEST</b>	County <b>RIO ARriba</b>
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<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 <b>160</b>					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

	<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.  <i>Don Graham</i> Signature Don Graham Printed Name Production Superintendent Title <b>12-11-01</b> Date
	<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. Survey Date: <b>SEPTEMBER 28, 2001</b> Signature and Seal of Professional Surveyor  <b>JASON C. EDWARDS</b> Certificate Number 15269

1680' FNL & 1650' FWL, SECTION 21, T30N, R4W, N.M.P.M.  
RIO ARRIBA COUNTY, NEW MEXICO



## OPERATIONS PLAN

WELL NAME: Carson 11

LOCATION: 1680' FNL, 1650' FWL, Section 21, T30N, R4W, Rio Arriba County, NM

FIELD: East Blanco Pictured Cliffs

ELEVATION: 7522' GL

### FORMATION TOPS:

Surface	San Jose
Nacimiento	2264
Ojo Alamo	3634
Kirtland	3864
Fruitland	4084
Pictured Cliffs	4269
Lewis	4579
Total Depth	4719'

### LOGGING PROGRAM:

Open Hole Logs:

Surface to TD: HRI/SP/GR, CNT/LDT/MLT, MRIL

Mud Logs: None

Coring: None

Natural Gauges: None

MUD PROGRAM: Fresh water low solids mud from surface to T. D. 9.0-9.2 PPG.

### CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT.</u>	<u>GRADE</u>
12 1/4"	200'	9 5/8"	32.3#	H-40
7 7/8"	4719'	5 1/2"	15.5#	J-55

### TUBING PROGRAM:

4600	2 3/8"	4.7#	J-55
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WELLHEAD: 9 5/8" 2000 x 5 1/2" Larkin Fig. 92 casing head. 5-1/2" 2000 x 2" tubing head.

### 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. An upper Kelly Cock valve with handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

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.

5 1/2" production casing:

First Stage - cement with 155 sks Class B with 2% Calcium Chloride, 10% Gilsonite and 1/4# flocele/sks (194 cu. ft. of slurry, 50% excess to circulate stage tool @ 4000).

Second Stage - cement with 510 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 50 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (1040 cu. ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 8 bow spring centralizers spaced every 3rd joint off bottom. One bow spring centralizer below and eight above stage tool at 4000. Two turbolating centralizers at the base of the Ojo Alamo.

OTHER INFORMATION:

- 1) No abnormal temperatures or pressures are anticipated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 3) This gas is dedicated.
- 4) Anticipated pore pressure for the Fruitland is 900 psi and the Pictured Cliffs is 1000 psi.