

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

5. Lease Serial No.  
SF-079487-A

1a. Type of Work ☒ DRILL ☒ REENTER  
1b. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ 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, NM

3b. Phone No. (include area code)  
(505) 325-6800

8. Lease Name and Well No.  
Carson 4C

9. API Well No.  
30 039 27074

4. Location of Well (Report location clearly and in accordance with any State requirements)\*

At surface 660' FNL.v 1795' FWL

At proposed prod. zone

10. Field and Pool, or Exploratory  
Blanco Mesaverde

11. Sec., T., R., M., or Blk. and Survey or Area  
C Sec. 19, T30N, R04W

14. Distance in miles and direction from nearest town or post office\*

Seven miles northeast of Gobernador, New Mexico

12. County or Parish

Rio Arriba

13. State

NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drg. unit line, if any) 660'

16. No. of Acres in lease  
1819.52

17. Spacing Unit dedicated to this well  
W/2

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 1000'

19. Proposed Depth  
7176'

20. BLM/BIA Bond No. on file  
219,52

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
7469' GL

22. Approximate date work will start\*  
June 2003

23. Estimated duration  
14 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.
2. A Drilling Plan
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
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  
09/23/02

Title  
Production Assistant

Approved by (Signature)  
David J. Mankiewicz

Name (Printed/Typed)

Date  
FEB 25 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)

NMOCD

District I  
PO Box 1950, 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

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

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

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

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30039-27074</b>		*Pool Code 72319	*Pool Name BLANCO MESAVERDE
*Property Code <b>271.85</b>	*Property Name CARSON		*Well Number 4C
*OGRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 7469'

#### 10 Surface Location

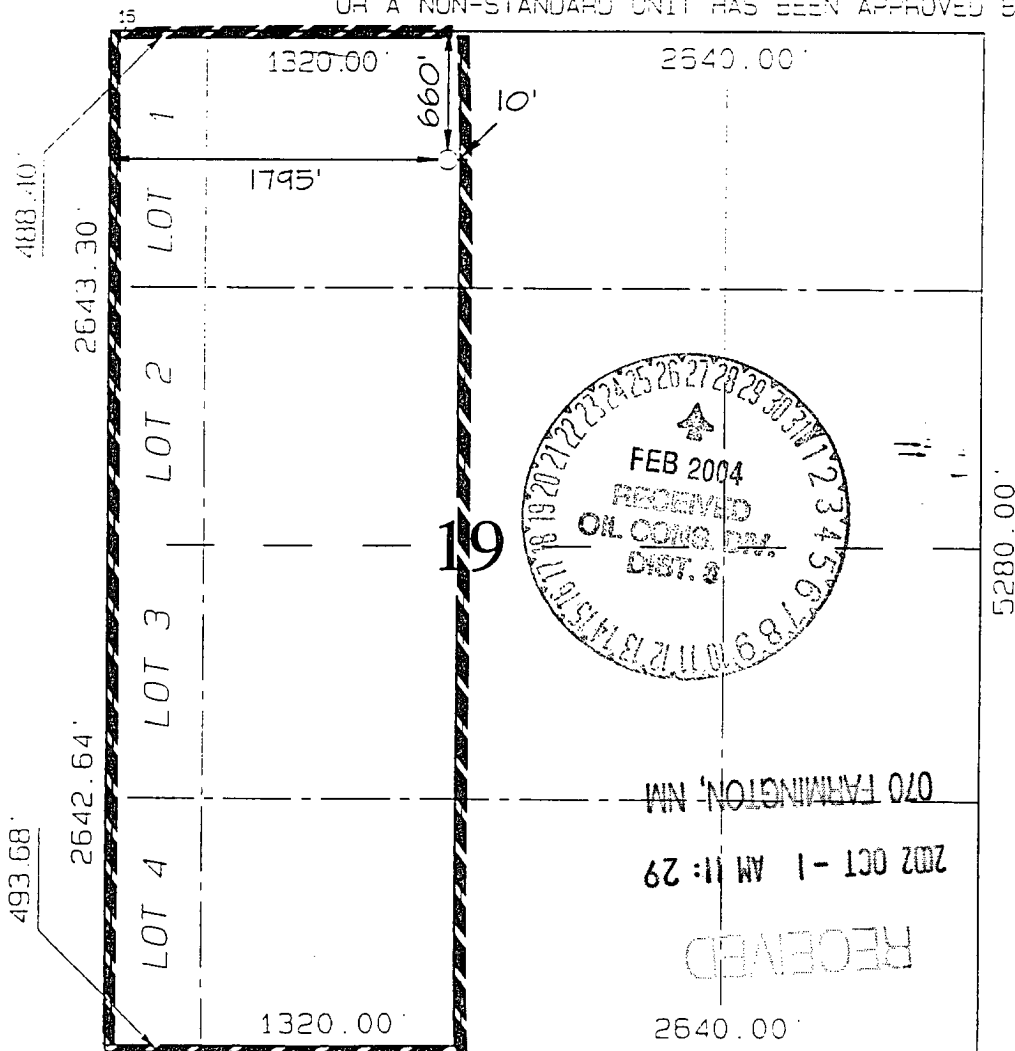
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	30N	4W		660	NORTH	1795	WEST	RIO ARriba

#### 11 Bottom Hole Location If Different From Surface

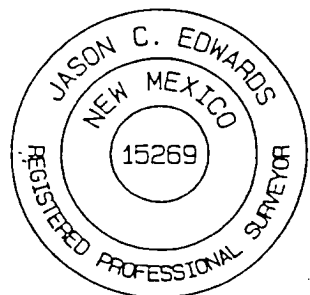
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres 219.52 Acres - (W/2)	*Joint or Infill	*Consolidation Code	*Order No. <b>NSP-1791/L</b>
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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



17 OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature <i>Don Graham</i>	
Printed Name Don Graham	
Title Production Superintendent	
Date <b>9-20-02</b>	

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.	
Survey Date: <b>AUGUST 19, 2002</b>	
Signature and Seal of Professional Surveyor	
	
<b>JASON C. EDWARDS</b> Certificate Number 15269	

## OPERATIONS PLAN

WELL NAME: Carson #4C

LOCATION: 660' FNL, 1795' FWL, Section 19, T30N, R4W, Rio Arriba County, NM

FIELD: Blanco Mesaverde

ELEVATION: 7469' GR

### FORMATION TOPS:

Surface	San Jose	Huerfanito Benonite	5216
Nacimiento	2246	Cliff House	6066
Ojo Alamo	3541	Menefee	6416
Kirtland	3771	Point Lookout	6626
Fruitland	4001	Mancos Sh	7086
Pictured Cliffs	4176		
Lewis	4586	<b>Total Depth</b>	<b>7176</b>

### 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 1/4"	200'	9 5/8"	36#	J-55
8 3/4"	4786'	7"	20 & 23#	J-55
6 1/8"	4636'-7124'	4 1/2"	10.5#	J-55

### TUBING PROGRAM:

7100	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. (1080 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 280 sks 50/50 poz with 2% gel, 5 PPS gilsonite, .4% halad - 9 and 1/4# flocele/sk (352 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.