

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

070 Farmington, NM

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER

b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
CORDILLERA ENERGY, INC.

3A. Address
c/o Walsh Engineering, 7415 E. Main, Farmington, NM 87402

3b. Phone No. (include area code)
(505) 327-4892

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

At surface 820' FNL and 1020' FWL

At proposed prod. Zone

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

1 miles north of Farmington, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 820'

16. No. of Acres in lease 320+

17. Spacing Unit dedicated to this well 331.77 320 acres (west half)

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 76'

19. Proposed Depth 1995 +/-

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5665' GL

22. Approximate date work will start* August 15, 2003

23. Estimated duration 1 week

24. Attachments

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office.
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized office.

25. Signature Paul C. Thompson Name (Printed/Typed) Paul C. Thompson, P.E. Date 7/21/03

Approved by (Signature) /s/ David J. Mankiewicz Agent Name (Printed/Typed) Office Date AUG 22 2003

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)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NMOC

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

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

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102

Revised February 21, 1994

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-31800		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 25672	*Property Name BIG JAKE		*Well Number 2
*OGRID No. 173252	*Operator Name CORDILLERA ENERGY, INC.		*Elevation 5665'

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
D	26	31N	13W		820	NORTH	1020	WEST	SAN JUAN

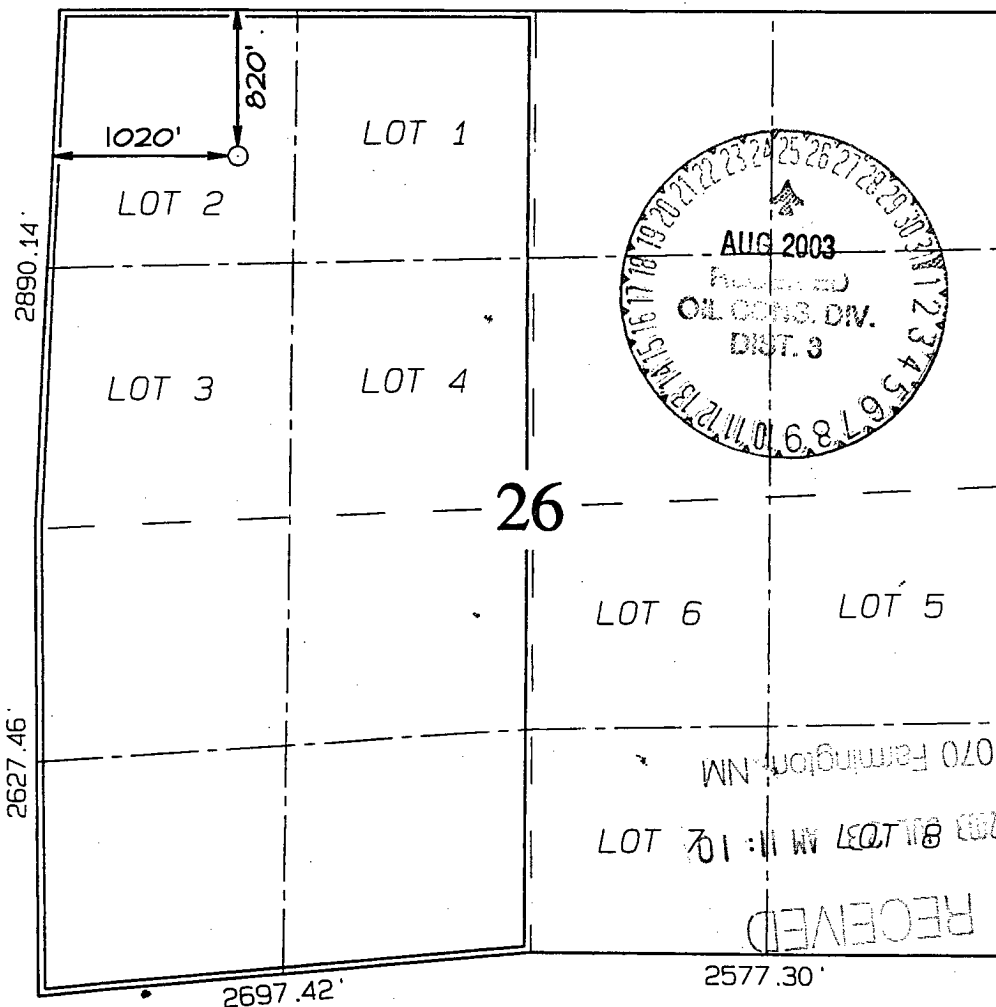
¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres 331.77 Acres - (W/2)	¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ 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

5189.58'



¹⁷ OPERATOR CERTIFICATION

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

Paul C. Thompson
Signature
PAUL C. THOMPSON
Printed Name
AGENT
Title
7/21/03
Date

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: **APRIL 30, 2003**

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number **15269**

CORDILLERA ENERGY, INC.
OPERATIONS PLAN
Big Jake #2

I. Location: 820' FNL & 1020' FWL Date: July 21, 2003
 Sec 26 T31N R13W
 San Juan County, NM

Field: Basin Fruitland Coal Elev: GL 5665'
Surface: BLM
Minerals: SF 078464

II. Geology: Surface formation _ Nacimiento

<u>Formation Tops</u>	<u>Depths</u>
Ojo Alamo	895'
Kirtland	925'
Fruitland	1140'
Pictured Cliffs	1845'
Total Depth	1995'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 1140' and 1845.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H₂S zones will be penetrated in this well. Max. BHP = 2500 psig.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See the attached Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# J-55
6-1/4"	1995'	4-1/2"	10.5# K-55

B. Float Equipment:

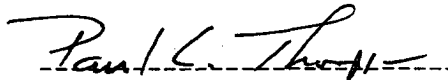
a) Surface Casing: None.

b) Production Casing: 4-1/2" cement guide shoe and self fill insert float. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers placed across the Ojo Alamo.

V. Cementing:

Surface casing: 7" - Use 30 sx (36 cu. ft.) of C1 "B" with 2% CaCl₂ (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. Lead with 145x(299 cu.ft) of C1 "B" with 2% SMS, 1/4#/sk. celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). Tail with 100 sx (118 cu.ft.) of C1 "B" with 2% CaCl₂, and 1/4#/sk. celloflake/sk. (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG) Total cement volume is 417 cu.ft. (100% excess to circulate cement to surface).


Paul C. Thompson, P.E.