

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL

5. Lease Number
SF-078312
Unit Reporting Number

1b. Type of Well
GAS

6. If Indian, All. or Tribe

2. Operator
**BURLINGTON
RESOURCES** Oil & Gas Company

7. Unit Agreement Name

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700

8. Farm or Lease Name
Hubbard
9. Well Number
#100

4. Location of Well
735' FSL, 730' FWL
Latitude 36° 59.7' N, Longitude 108° 04.3' W

10. Field, Pool, Wildcat
Basin Fruitland Coal
11. Sec., Twn, Rge, Mer. (NMPM)
M Sec. 11, T-32-N, R-12-W
API # 30-045-30884

14. Distance in Miles from Nearest Town
17 miles from P.O. in La Plata, CO

12. County San Juan 13. State NM

15. Distance from Proposed Location to Nearest Property or Lease Line
730'

16. Acres in Lease

17. Acres Assigned to Well
~~320 3/2~~
336.40 5/2

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
76'

19. Proposed Depth 2552'
Time allowed for review is 30 days and
procedural review pursuant to 43 CFR 3160.3
and appeal pursuant to 43 CFR 3165.4.

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6148' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

RECEIVED AND REVIEWED BY BLM
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

24. Authorized by: Robert C. Allen
Regulatory/Compliance Supervisor

Date

8-17-01

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY /s/ Jim Lovato

TITLE _____

DATE 11/26/01

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. 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

¹ API Number 30-045-30884	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 18549	⁵ Property Name HUBBARD	⁶ Well Number 100
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS INC.	⁹ Elevation 6148'

¹⁰ Surface Location

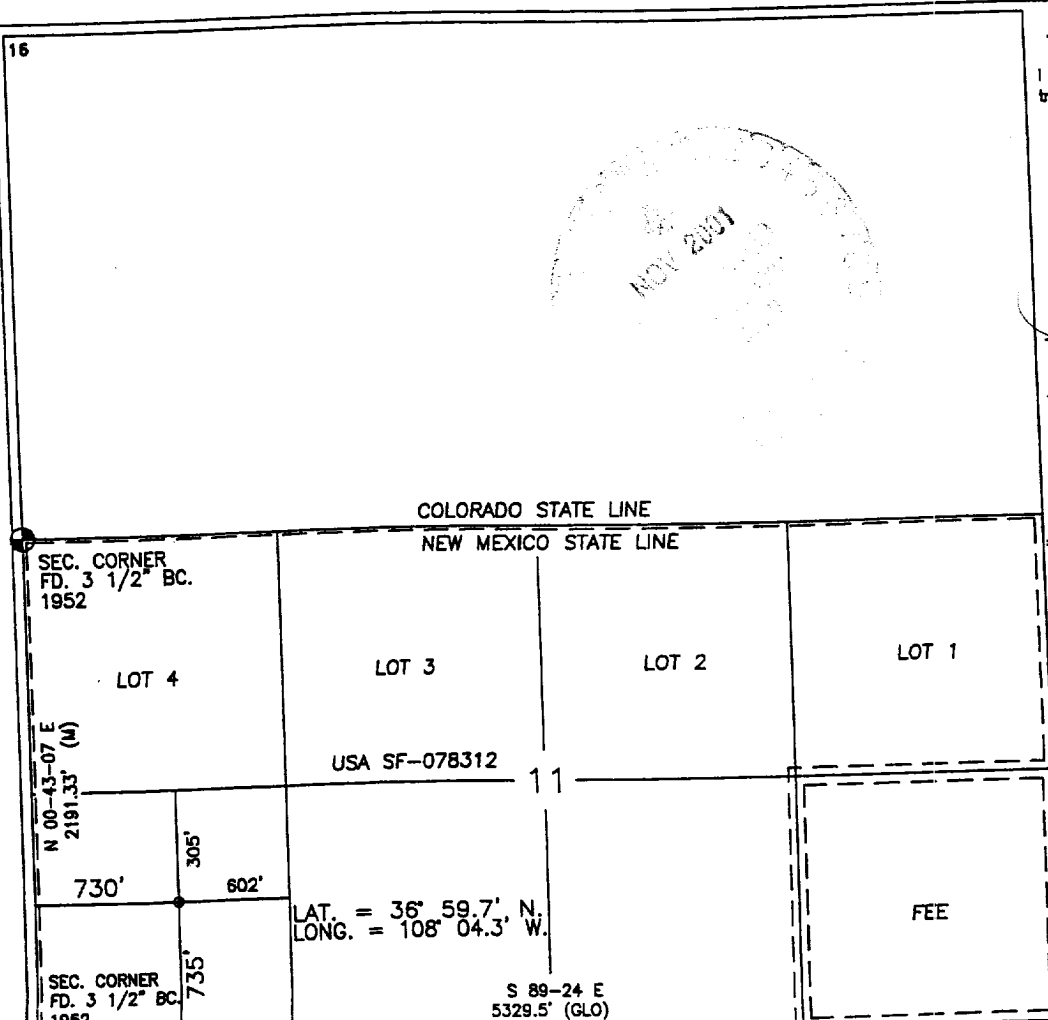
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	11	32-N	12-W		735	SOUTH	730	WEST	SAN JUAN

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 S/2 336.4 320	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

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17 OPERATOR CERTIFICATION

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

Signature

Peggy Cole

Printed Name

Regulatory Supervisor

Title

Date

8-17-01

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

Signature and Seal of Professional Surveyor

8894

Certificate Number

BURLINGTON RESOURCES OIL & GAS INC.

HUBBARD #100

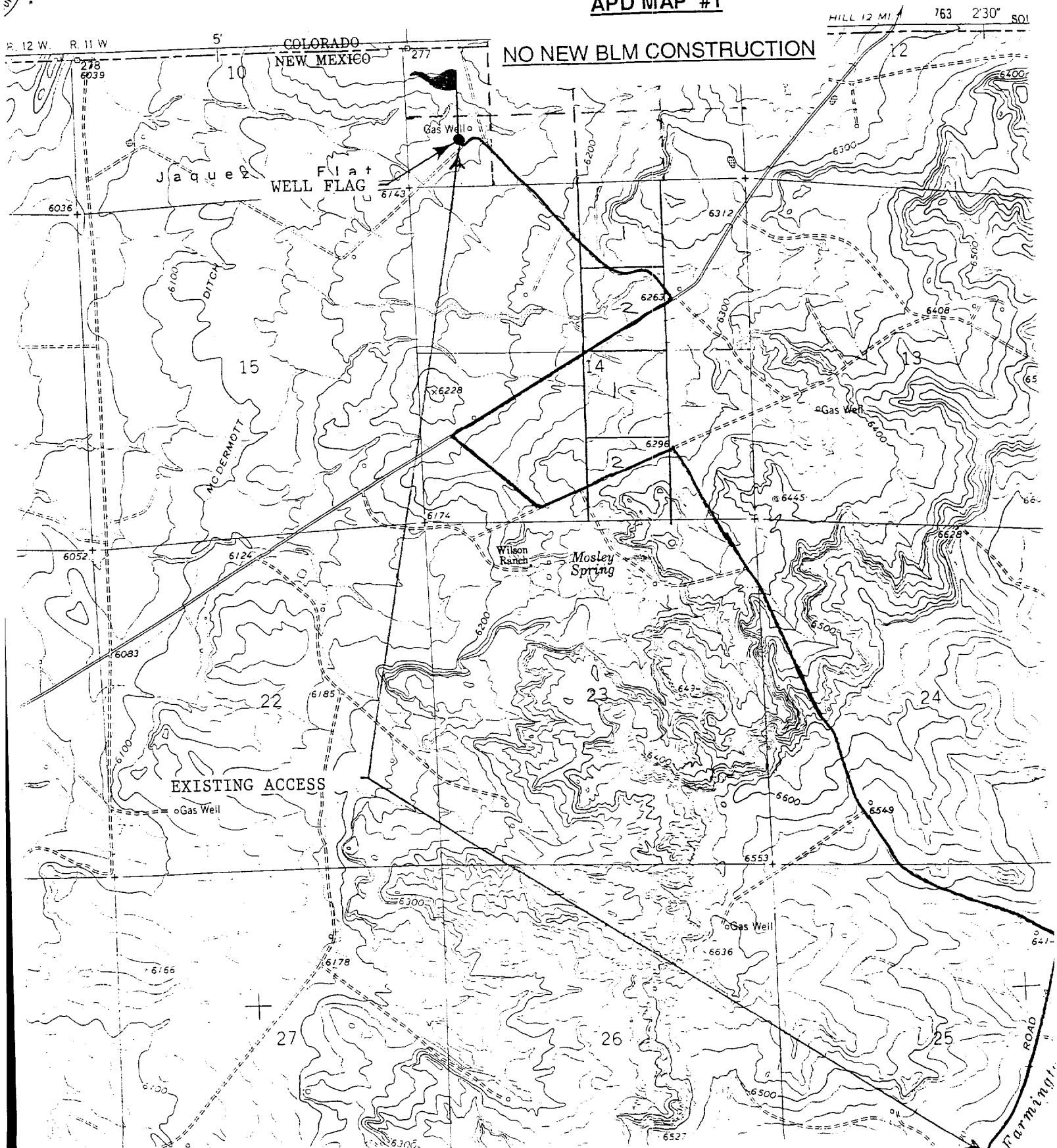
SW/4 SECTION 11, T-32-N, R-12-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

735' FSL 730' FWL

APD MAP #1

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OPERATIONS PLAN

Well Name: Hubbard #100
Location: 735' FSL, 730' FWL Section 11, T-32-N, R-12-W
Latitude 36° 59.7' N, Longitude 108° 04.3' W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 6148' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	510'	
Ojo Alamo	510'	560'	aquifer
Kirtland	560'	2086'	gas
Fruitland	2086'	2522'	gas
Pictured Cliffs	2522'		gas
Total Depth	2552'		

Logging Program: Platform Express from TD to surface.
Mudlog: 2 Man unit from surface casing to TD.
Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0-120'	Spud	8.4-9.0	40-50	no control
120-2552'	Non-dispersed	8.4-9.5	30-60	no control

Casing Program (as listed, the equivalent, or better):

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
9 7/8"	0' - 120'	7"	20.0#	J-55
6 1/4"	0' - 2552'	4 1/2"	10.5#	J-55

Tubing Program:

0' - 2252'	2 3/8"	4.7#	J-55
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Float Equipment: 7" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Seven centralizers run every 3rd joint to the base of the Ojo Alamo @ 560'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 560'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 7" x 4 1/2" x 2 3/8" x 11" 2000 psi screw on independent wellhead.

Cementing:

7" surface casing - cement with 27 sx Class A, B Portland Type I, II cement (32 cu.ft. of slurry, bring cement to surface through 3/4" line). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

4 1/2" production casing - Lead w/188 sx Premium Lite cement w/3% calcium chloride, 1/4 pps flocele, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS. Tail w/90 sx Type III cement w/1% calcium chloride, 1/4 pps flocele, and 0.2% FL-52 (524 cu.ft. of slurry, 100% excess to circulate to surface.)

4 1/2" production casing alternative two stage: Stage collar at 1986'. First stage: cement with 84 sx Type III cmt w/1% calcium chloride, 0.25 pps flocele, 0.2% FL-52. Second stage: 191 sx Premium Lite w/3% calcium chloride, 0.25 pps flocele, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS (524 cu.ft. of slurry, 100% excess to circulate to surface.)

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 7 1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

BOP and tests (If a coiled tubing drilling (CTD) rig is utilized.):

Surface to TD: 7-1/16" 2000 psi (minimum) Torus annular BOP stack (Reference Figure #1b). Prior to drilling out surface casing, test annular BOP to 600psi/30 min.

Completion: 7-1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test blind rams and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each. **Same as in original APD operations plan.**

From surface to TD: choke manifold (Reference Figure #3). **Same as in original APD operations plan.**

The annular BOP will be actuated to close on drill pipe (coiled tubing) at least once each day and to close on open hole once each trip to test proper functioning.

Additional information:

- * The Fruitland Coal formation will be completed.
- * Anticipated pore pressure for the Fruitland Coal is 500 psi.
- * This gas is dedicated.
- * The south half of Section 11 is dedicated to the Fruitland Coal.

Erin J. Giles
Drilling Engineer

8/28/01
Date