

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 NMSF047020B 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 Calvin 9. Well Number 100
4. Location of Well 1035' FSL, 1820' FWL Latitude 36° 41.6, Longitude 107° 57.8	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) N Sec. 26, T-29-N, R-11-W API # 30-045-31118
14. Distance in Miles from Nearest Town 3 miles from Bloomfield, NM P.O.	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1035'	17. Acres Assigned to Well 320 S/2
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 248'	20. Rotary or Cable Tools Rotary
19. Proposed Depth 2008'	
21. Elevations (DF, FT, GR, Etc.) 5578' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"	This action is subject to technical and procedural review pursuant to 43 CFR 3169.3 and appeal pursuant to 43 CFR 3165.4
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>5-20-02</u>

PERMIT NO. 101 David J. Martinez

APPROVAL DATE

APPROVED BY

TITLE

DATE JUL 25

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
1825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045- 31118		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 6883	*Property Name CALVIN		*Well Number 100
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS INC.		*Elevation 5578'

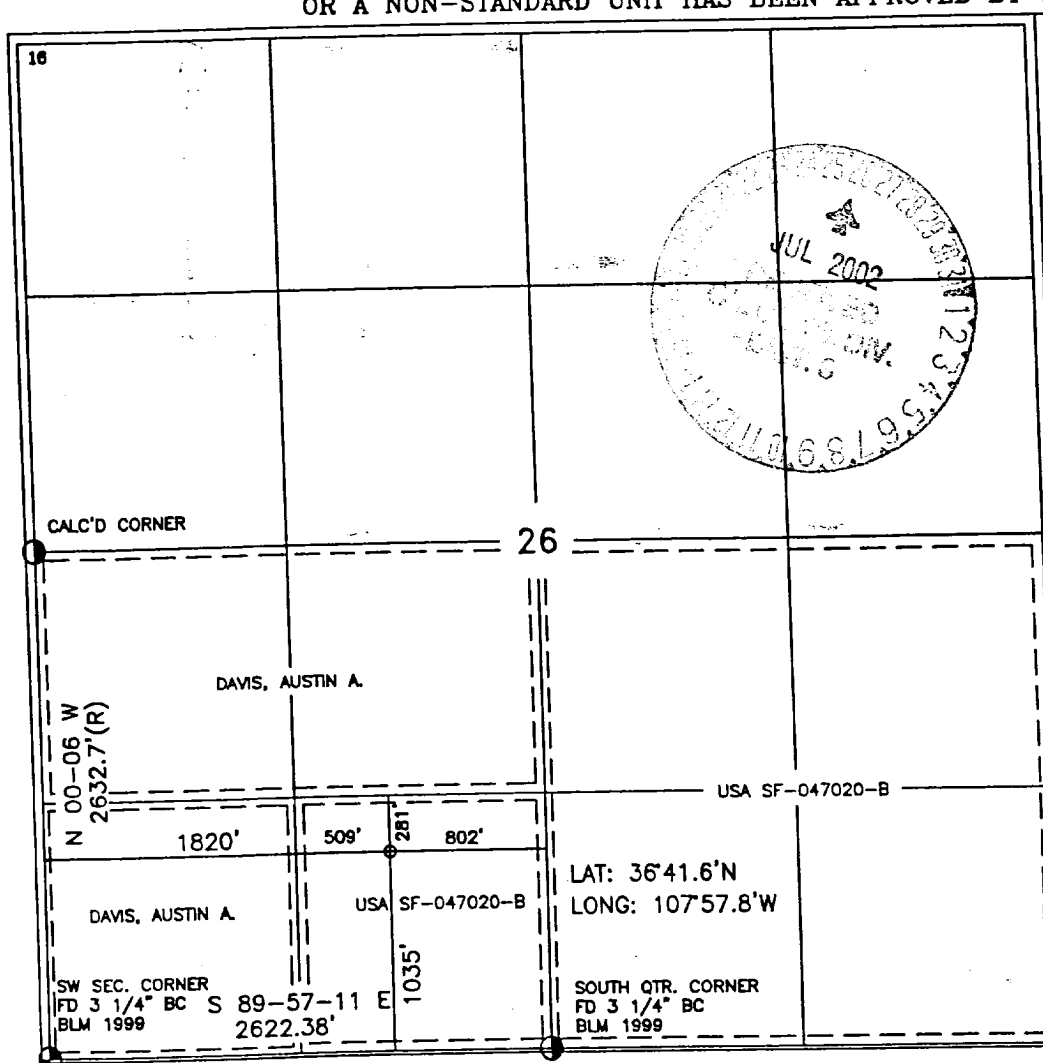
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	26	29-N	11-W		1035	SOUTH	1820	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
*Dedicated Acres S/320			*Joint or Infill		*Consolidation Code		*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



¹⁷ OPERATOR CERTIFICATION

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

Peggy Cole
Signature

Peggy Cole
Printed Name
Regulatory Supervisor

Title
5-20-02
Date

¹⁸ SURVEYOR CERTIFICATION

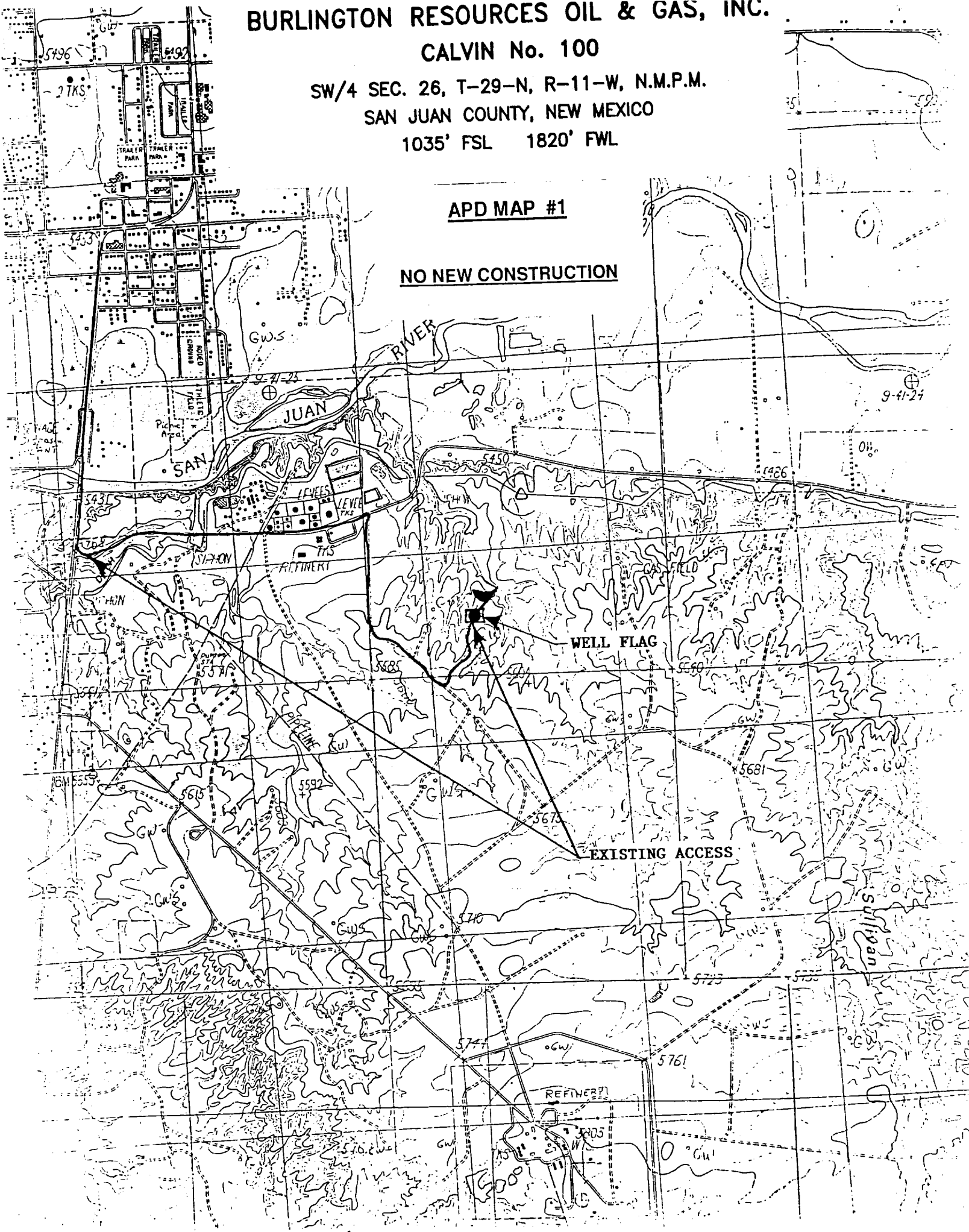
I hereby certify that the well location shown on this plat
was plotted from field notes of actual surveys made by
me or under my supervision and that the same is true
and correct to the best of my belief.

MAURICIO J. JIMENEZ
Date of Survey
Signature and Seal of Professional Surveyor

14827
Certificate Number

1035' FSL 1820' FWL

NO NEW CONSTRUCTION



OPERATIONS PLAN

Well Name: Calvin #100
Location: 1035' FSL, 1820' FWL Section 26, T-29-N, R-11-W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 5578' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	577'	
Ojo Alamo	577'	692'	aquifer
Kirtland	692'	1481'	
Fruitland	1481'	1758'	gas
Basal Coal	1758'	1768'	gas
Pictured Cliffs	1768'		gas
Total Depth	2008'		

Logging Program: Cased hole: GR/Neu - TD to surface
Mudlog: 2 man unit from Kirtland to TD
Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-2008'	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' - 2008'	4 1/2"	10.5#	J-55

Tubing Program:

0' - 2008'	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 - guide shoe and self-fill float collar. Three centralizers run every other joint above shoe. Nine centralizers run every 3rd joint to the base of the Ojo Alamo @ 692'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 692'. 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. *48 hr min*

4 1/2" production casing - Lead w/113 sx Premium Lite cement w/3% calcium chloride, 1/4 pps Cello-flake, 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 Cello-flake, and 0.2% FL-52 (364 cu.ft. of slurry, 75% excess to circulate to surface.) If cement is not circulated to surface, a temperature survey or CBL will be run during drilling or completion operations to determine TOC.

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 at 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 and commingled.
- * Anticipated pore pressure for the Fruitland is 570 psi.
- * This gas is dedicated.
- * The south half of Section 26 is dedicated to the Fruitland Coal.

Sean Lorigan
Drilling Engineer

May 21, 2002
Date