UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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2003 DEC -4 AM 9:55
070 Farmington, NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. **Type of Work**
DRILL

5. **Lease Number**
NMSF077082
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**
Hamner Federal

9. **Well Number**
1M

4. **Location of Well**
1630'FNL, 1830'FEL

Latitude 36° 41.1362'N, Longitude 107° 51.0712'W

10. **Field, Pool, Wildcat**
Otero Chacra/Blanco Mesaverde/Basin Dakota

11. **Sec., Twn, Rge, Mer. (NMPM)**
G Sec.35, T-29-N, R-10-W

API # 30-045- 32059

14. **Distance in Miles from Nearest Town**
11 miles to Bloomfield

12. **County** San Juan

13. **State** NM

15. **Distance from Proposed Location to Nearest Property or Lease Line**
1630'

16. **Acres in Lease**

17. **Acres Assigned to Well**
Chacra: 160 NE/4
MV/DK: 320 N/2

18. **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**
180'

19. **Proposed Depth**
6623'

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
5601' GR

22. **Approx. Date Work will Start**

23. **Proposed Casing and Cementing Program**
See Operations Plan attached

24. **Authorized by:** Peggy Cole
Regulatory/Compliance Supervisor

Date 7-9-03

PERMIT NO. _____ **APPROVAL DATE** _____

APPROVED BY /s/ David J. Mankiewicz **TITLE** _____ **DATE** JAN - 6 2004

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.

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

NMOCD

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

1 API Number	2 Pool Code	3 Pool Name
30-045- 32059	72319/71599/82329	Blanco Mesaverde/Basin Dakota/Otero Chacra

4 Property Code	5 Property Name	6 Well Number
33275	HAMNER FEDERAL	1M

7 OGRID No.	8 Operator Name	9 Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY, LP	5601'

10 Surface Location

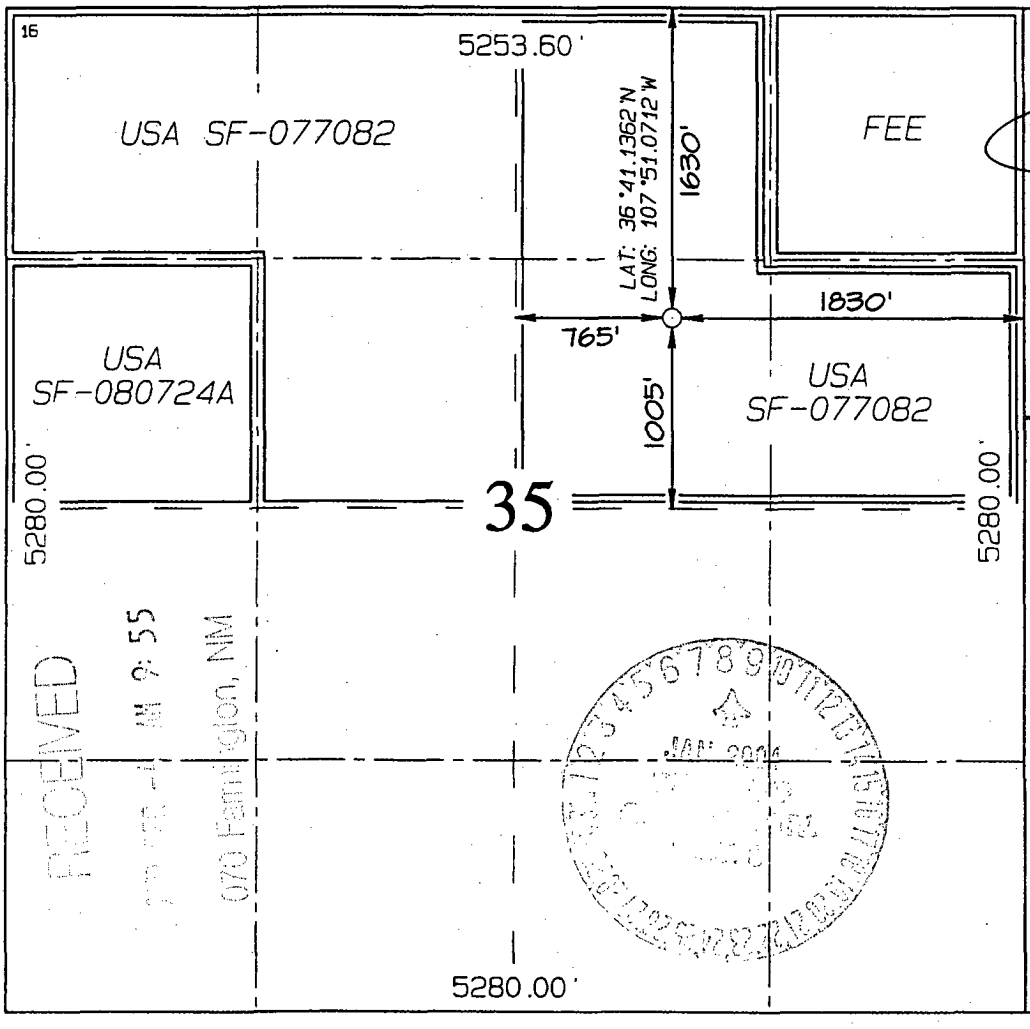
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	29N	10W		1630	NORTH	1830	EAST	SAN JUAN

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
Cha: NE/160 MV/DK: N/320			

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

Peggy Cole
Printed Name

Regulatory Supervisor
Title

7-9-03
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 25, 2003

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

OPERATIONS PLAN

Well Name: Hamner Federal #1M
Location: 1630'FNL, 1830'FEL, Sec 35, T-29-N, R-10-W
San Juan County, NM
Latitude 36° 41.1362'N, Longitude 107° 51.0712'W
Formation: Otero Chacra/Blanco Mesaverde/Basin Dakota
Elevation: 5601'GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	743'	
Ojo Alamo	743'	878'	aquifer
Kirtland	878'	1643'	gas
Fruitland	1643'	1873'	gas
Pictured Cliffs	1873'	1963'	gas
Lewis	1963'	2478'	gas
Huerfanito Bentonite	2478'	2848'	gas
Chacra	2848'	3513'	gas
Massive Cliff House	3513'	3533'	gas
Menefee	3533'	4178'	gas
Intermediate TD	**3683'**		
Massive Point Lookout	4178'	4513'	gas
Mancos	4513'	5368'	
Gallup	5368'	6150'	gas
Greenhorn	6150'	6218'	
Graneros	6218'	6271'	
Two Wells	6271'	6321'	gas
Paguate	6321'	6383'	gas
Main Body	6383'	6516'	gas
Burro Canyon	6516'	6573'	
Morrison	6573'		
TD	**6623'**		

Logging Program:
Cased hole - CBL/CCL/GR - TD to surface
Open hole - none
Mud Log - none
Cores - none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120- 3683'	LSND	8.4-9.0	30-60	no control
3683- 6623'	Air/N2	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

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

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - ~~2213~~ 3683'	7"	20#	J55
6 1/4"	0' - 6500'	4 1/2"	10.5#	J-55
3 7/8"	6500 - 6623'	n/a	n/a	n/a

Tubing Program:

0' - 6623'	2 3/8"	4.7#	J-55

BOP Specifications, Wellhead and Tests:
Surface to Intermediate TD -
11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, BOPE and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -
11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, BOPE and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -
2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -
7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -
9 5/8" x 7" x 4 ½" x 2 3/8" x 2000 psi tree assembly.

General -
- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9-5/8" surface casing - cement with 32 sxs Class A, B Portland Type I, II cement (38 cu.ft. of slurry, bring cement to surface through 3/4" line) or equivalent. WOC 24 hours for pre-set holes or 8 hours for conventionally set holes before pressure testing or drilling out from under surface casing.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -
Lead w/332 sx Premium Lite with 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail with 90 sx Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss (830 cu.ft. of slurry, 50% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 1343'. First stage: Pump 189 sxs Premium Lite with 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail w/90 sx Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss. Second stage: w/142 sx Premium Lite with 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (830 cu.ft. of slurry, 50% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every third joint off bottom, to the base of the Ojo Alamo at 878'. Two turbolating centralizers at the base of the Ojo Alamo at 878'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production casing -
Pump 196 sxs Premium Lite HS FM w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss, 6% gel, 7 pps CSE (389 cu.ft., 30% excess to cmt 7" & 4 ½" overlap). WOC a minimum of 18 hrs prior to completing.

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

Cement float shoe on bottom with float collar spaced on top of float shoe.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Dakota, Chacra, and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	1000 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The northeast quarter is dedicated to the Chacra and the north half of Section 35 is dedicated to the Mesa Verde and Dakota in this well.
- This gas is dedicated.

Sean Corrigan
Drilling Engineer

July 23, 2003