UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

FEB 2000 RECEIVED OIL CON. DIV. DIST. 3

1a. Type of Work
DRILL

1b. Type of Well
GAS

5. Lease Number
SF-077764
Unit Reporting Number

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
Schumacher

9. Well Number
11M

4. Location of Well
945' FSL, 1800' FEL

Latitude 36° 48.4, Longitude 107° 55.3

10. Field, Pool, Wildcat
Blanco MV/Basin DK

11. Sec., Twn, Rge, Mer. (NMPM)
O Sec. 18, T-30-N, R-10-W

API # 30-045- 30066

14. Distance in Miles from Nearest Town
4 miles from Aztec

12. County
San Juan

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
945'

16. Acres in Lease

17. Acres Assigned to Well
MV: ~~320~~ E/2 317.52
DK: ~~316.50~~ S/2 305.87

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

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
1000'

19. Proposed Depth
7499'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6394' GR

22. Approx. Date Work will Start

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

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Peggy Cole
Regulatory/Compliance Administrator

11-8-99
Date

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY /s/ Jim Lovato TITLE _____ DATE FEB 18 2000

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.

NMOCD

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

1999 DEC -2 PM 1:19

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-045-30066	72319/71599	Blanco Mesaverde/Basin Dakota

⁴Property Code	⁵Property Name	⁶Well Number
7491	SCHUMACHER	11M

⁷OGRID No.	⁸Operator Name	⁹Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6394'

¹⁰Surface Location

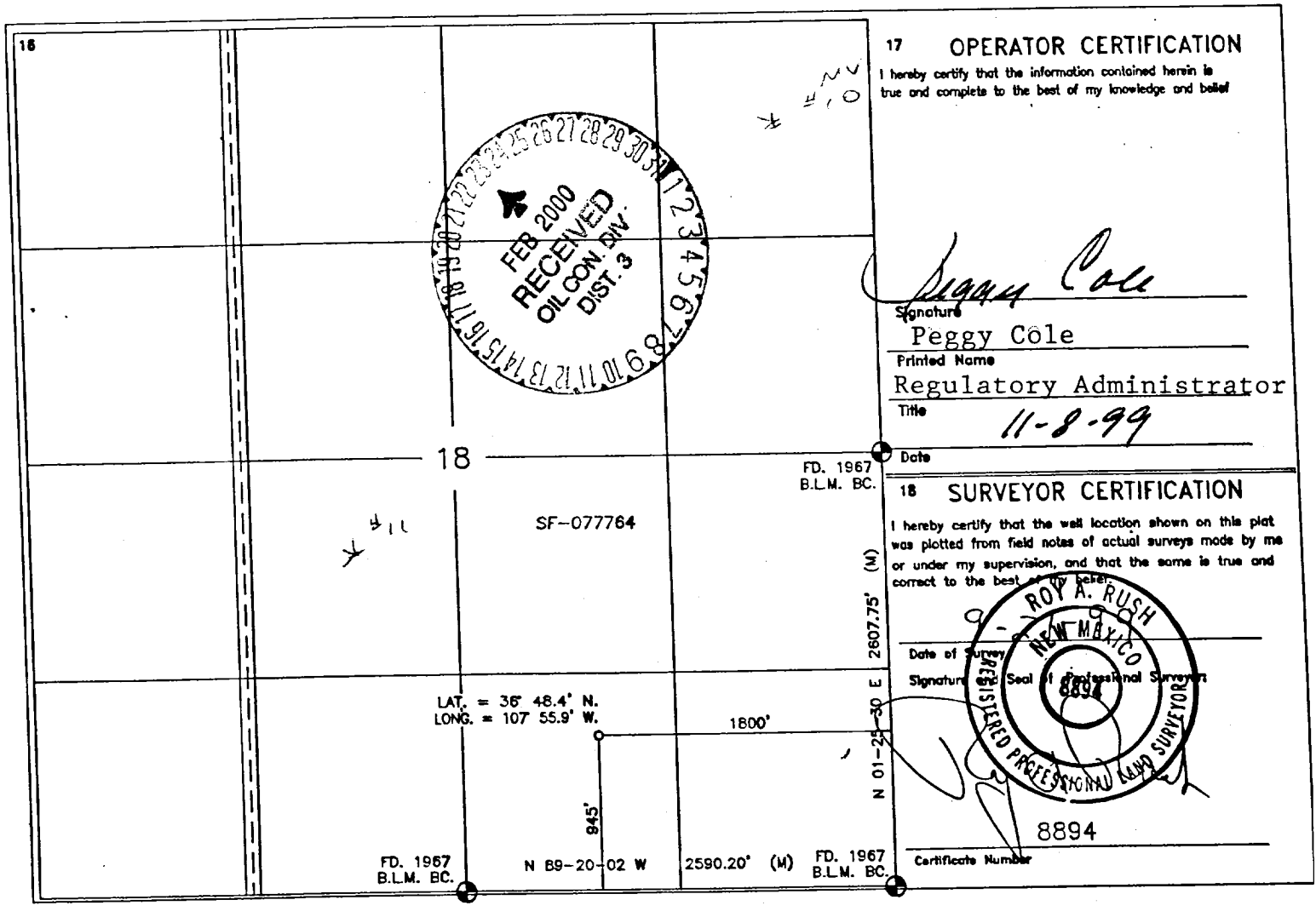
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	18	30-N	10-W		945	SOUTH	1800	EAST	SAN JUAN

¹¹Bottom 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

¹²Dedicated Acres	¹³Joint or Infill	¹⁴Consolidation Code	¹⁵Order No.
MV: E/~~320~~ 313 DK: S/~~316.50~~ 305.83	S2		

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

Peggy Cole
Printed Name

Regulatory Administrator
Title

11-8-99
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

Signature and Seal of Professional Surveyor

ROY A. RUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

OPERATIONS PLAN

Well Name: Schumacher #11M
Location: 945'FSL, 1800'FEL, Sec 18, T-30-N, R-10-W
San Juan County, NM
Latitude 36° 48.4, Longitude 107° 55.3
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6394' GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	1502'	
Ojo Alamo	1502'	1667'	aquifer
Kirtland	1667'	2332'	gas
Fruitland	2332'	2896'	gas
Pictured Cliffs	2896'	3074'	gas
Lewis	3074'	3656'	gas
Intermediate TD	**3174'**		
Mesa Verde	3656'	3936'	gas
Chacra	3936'	4550'	gas
Massive Cliff House	4550'	4720'	gas
Menefee	4720'	5206'	gas
Massive Point Lookout	5206'	5586'	gas
Mancos	5586'	6460'	gas
Gallup	6460'	7194'	gas
Greenhorn	7194'	7249'	gas
Graneros	7249'	7304'	gas
Dakota	7304'		gas
TD (4 1/2"liner)	**7499'**		

Logging Program:
Open hole - ARI, CNL, CDL, - TD to intermediate TD
Cased hole - CBL-CCL-GR - TD to surface
Cores - none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-9.0	40-50	no control
200- 3174'	LSND	8.4-9.0	30-60	no control
3174- 7499'	Gas	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' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3174'	7"	20.0#	J-55
6 1/4"	3074' - 7499'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 7499'	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, rams 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, rams 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 2 3/8" x 3000 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 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

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

7" intermediate casing -
Lead w/285 sx Class "B" w/3% sodium metasilicate, 7# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride, 2% gel (955 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 2232'. First stage: cement with w/210 sx Class "B" 50/50 poz w/2% gel, 2% calcium chloride, 0.5 pps Cellophane. Second stage: 229 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 10 pps Gilsonite (955 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1667'. Two turbolating centralizers at the base of the Ojo Alamo at 1667'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -
Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 501 sx 50/50 Class "H" Poz with 2% gel, 0.25# flocele/sx, 5# gilsonite/sx, 0.2% retardant and 0.4% fluid loss additive (636 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

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

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

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

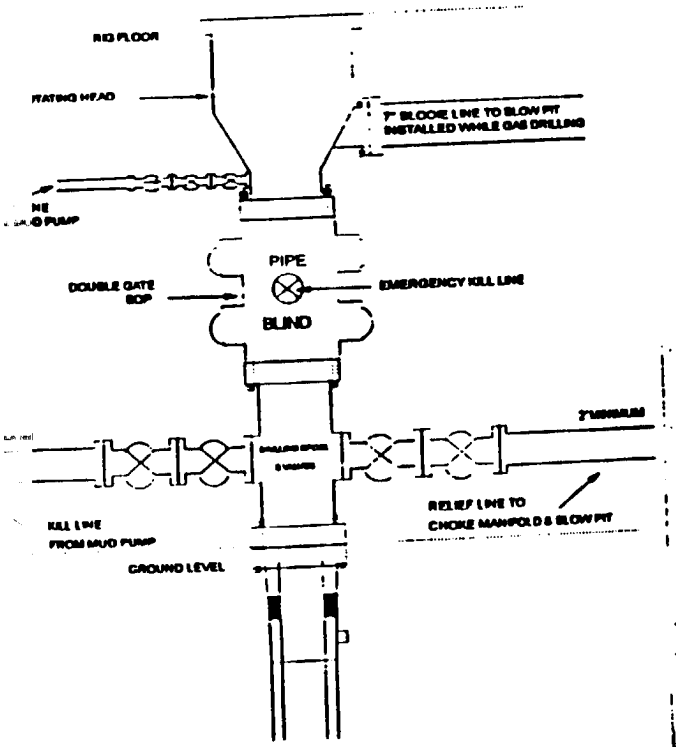
Fruitland Coal	800 psi
Pictured Cliffs	800 psi
Mesa Verde	700 psi
Dakota	2500 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The east half of Section 18 is dedicated to the Mesaverde and the south half of Section 18 is dedicated to the Dakota in this well.
- This gas is dedicated.

Drilling Engineer

11/11/99
Date

BOP Configuration
2M psi System

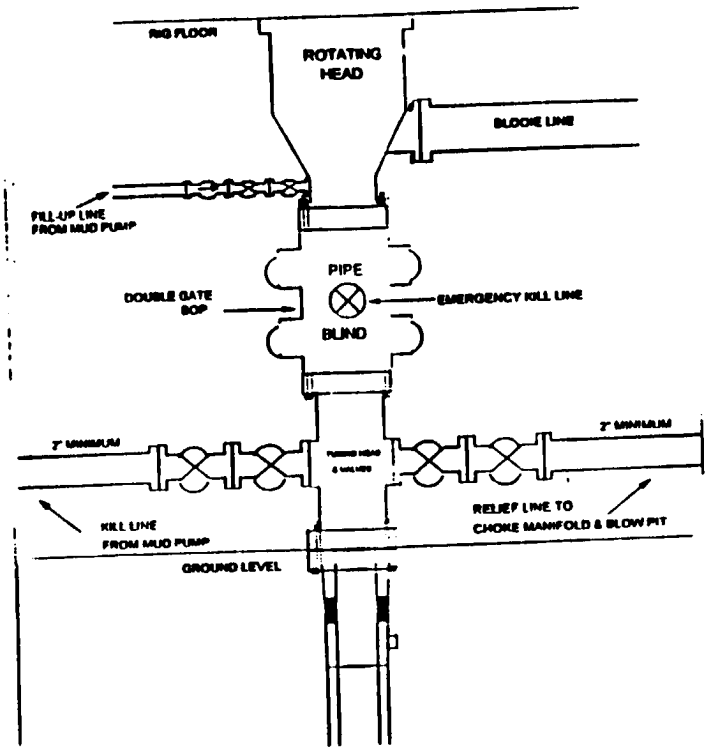


ore, 2000psi minimum working pressure double gate BOP to be equipped
blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be
ified on the top of the BOP. All equipment is 2000psi working pressure/or
reater.

FIGURE #1

BURLINGTON RESOURCES

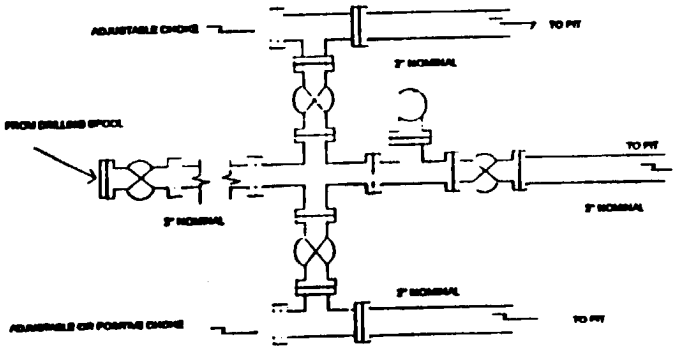
BOP Configuration
2M psi System



Minimum BOP installation for Completion operations. 7 1/16" Bore (5" Nominal). 2,000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams

FIGURE #2

Choke Manifold Configuration
2M System



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

BURLINGTON RESOURCES OIL & GAS COMPANY

SCHUMACHER No. 11M

SE/4 SECTION 18, T-30-N, R-10-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

945' FSL 1800' FEL