

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 NMNM02491 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> 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 Federal A 9. Well Number 1M	
4. Location of Well <del>1535'</del> FNL, <del>1880'</del> FEL <del>1555</del> <del>1845</del>  Latitude 36° 47.2, Longitude 107° 58.5	10. Field, Pool, Wildcat Otero Cha/Blanco MV/ Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) 6 Sec. 27, T-30-N, R-11-W API # 30-045-30910	
14. Distance in Miles from Nearest Town 5 miles to int. Hwy 64 & Hwy 550 in Bloomfield, NM	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1535'	17. Acres Assigned to Well Cha-NE/158.62 MV/DK-N/317.76 317.66	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1011'	
19. Proposed Depth 7115'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) <del>5952'</del> 5961'	22. Approx. Date Work will Start This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.  DILLING OF OIL & GAS WELL IS SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"	
23. Proposed Casing and Cementing Program See Operations Plan attached	24. Authorized by: <u>Peggy Cole</u> Regulatory/Compliance Supervisor Date <u>11-9-01</u>	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE 6/17/02  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

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  
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

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

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

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

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-30910	<sup>2</sup> Pool Code 82319/72319/71599	<sup>3</sup> Pool Name Otero Chacra/Blanco Mesaverde/Basin Dakota
<sup>4</sup> Property Code 7005	<sup>5</sup> Property Name FEDERAL A	<sup>6</sup> Well Number 1M
<sup>7</sup> GRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS INC.	<sup>9</sup> Elevation 5961

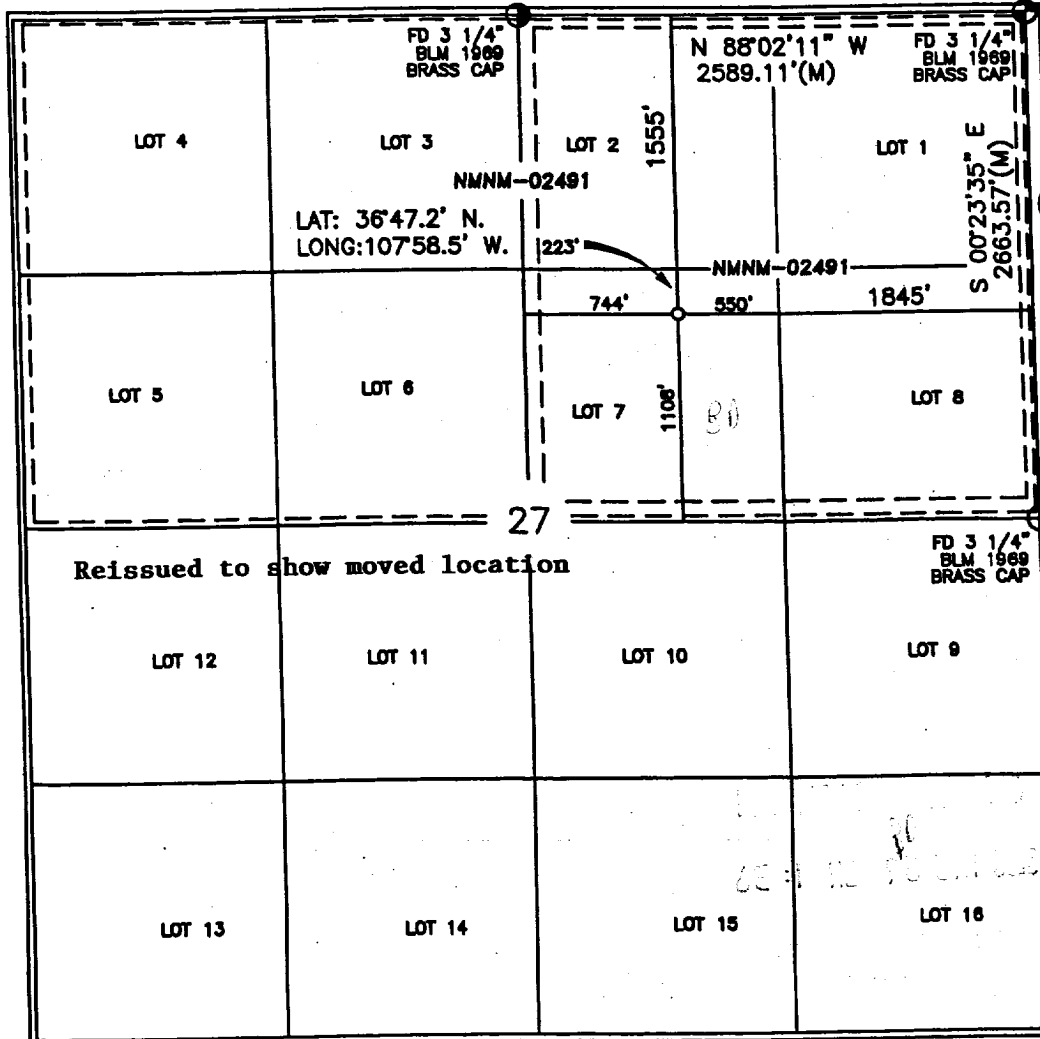
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	27	30-N	11-W		1555	NORTH	1845	EAST	SAN JUAN

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres Cha-NE/158.62 MV/DK-N/317.46					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

Signature

Peggy Cole

Printed Name

Regulatory Supervisor

Title

3-25-02

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.

Date of Survey

Signature

Registered Professional Land Surveyor

8894

Certificate Number

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## Sundry Notices and Reports on Wells

1. Type of Well  
GAS

2. Name of Operator

**BURLINGTON  
RESOURCES**

OIL & GAS COMPANY

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

1555' FNL, 1845' FEL, Sec. 27, T-30-N, R-11-W, NMPM

5. Lease Number  
NMNM02491

6. If Indian, All. or  
Tribe Name

7. Unit Agreement Name

8. Well Name & Number  
Federal A #1M

9. API Well No.  
30-045- **30910**

10. Field and Pool  
Otero Chacra/Blanco MV/  
Basin Dakota

11. County and State  
San Juan Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

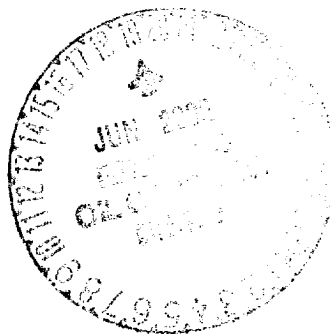
Type of Submission

Type of Action

<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other -	

13. Describe Proposed or Completed Operations

The location of the subject well has been moved from 1535' FNL, 1880' FEL. Attached is the revised C-102 plat, cut & fill diagram, and topo map.



14. I hereby certify that the foregoing is true and correct.

Signed

*Regan Call*

Title Regulatory Supervisor Date 3/22/02

TLW

(This space for Federal or State Office use)

APPROVED BY *David J. Mankiewicz* Title

Date JUN 17

CONDITION OF APPROVAL, if any:

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 representations as to any matter within its jurisdiction.

**AMOC**

BURLINGTON RESOURCES OIL & GAS INC.

FEDERAL A NO. 1M

NE/4 SEC. 27, T-30-N, R-11-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

1555' FNL

1845' FEL

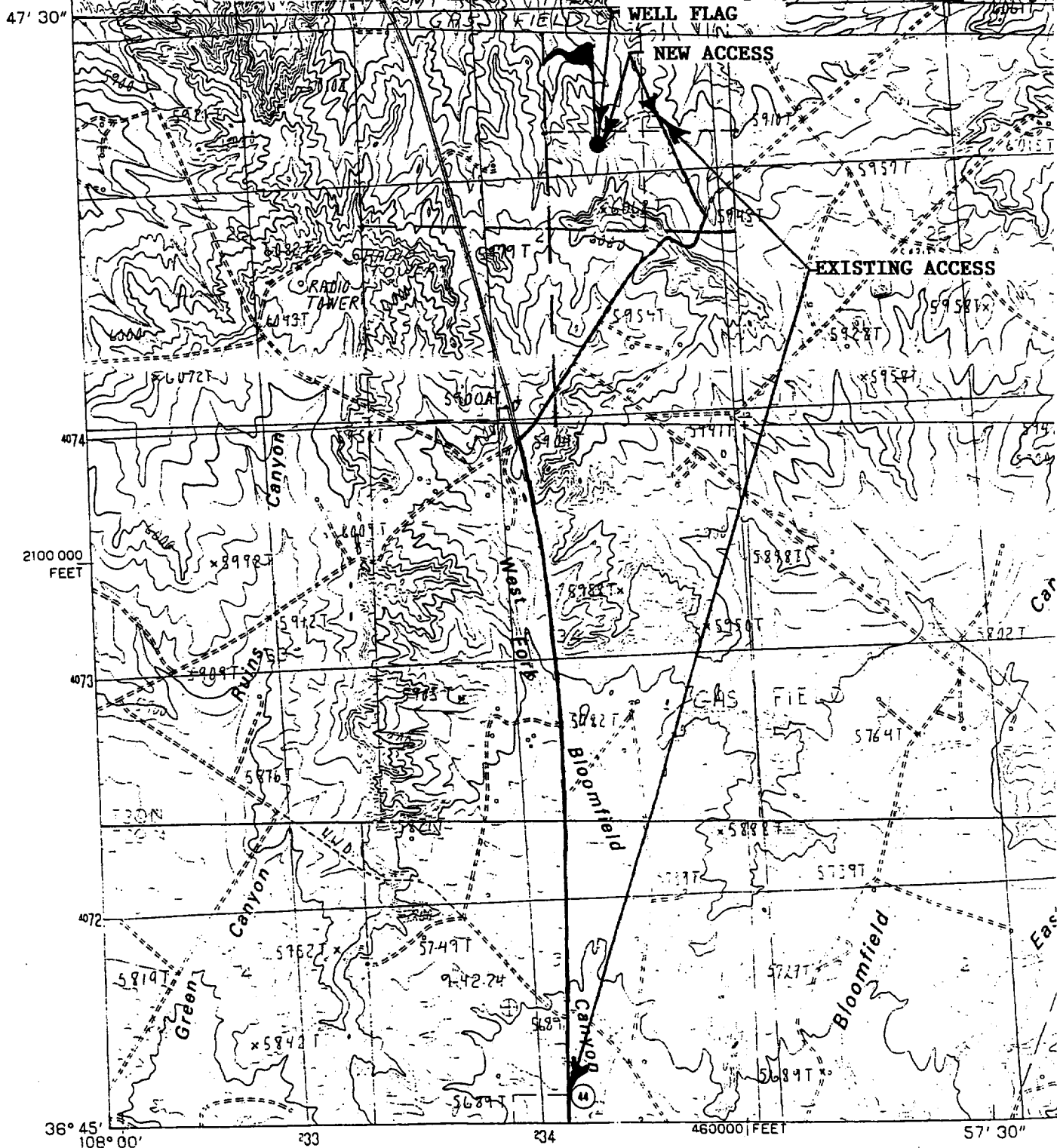
APD MAP #1

900' NEW BLM CONSTRUCTION

200' SW/4 NE/4, SEC. 27, T-30-N, R-11-W, N.M.P.M.

500' NW/4 NE/4, SEC. 27, T-30-N, R-11-W, N.M.P.M.

200' NE/4 NE/4, SEC. 27, T-30-N, R-11-W, N.M.P.M.



## OPERATIONS PLAN

**Well Name:** Federal A #1M  
**Location:** 1535' FNL, 1880' FEL, Sec 27, T-30-N, R-11-W  
San Juan County, NM  
Latitude 36° 47.2, Longitude 107° 58.5  
**Formation:** Otero Chacra/Blanco Mesaverde/Basin Dakota  
**Elevation:** 5951' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	998'	
Ojo Alamo	998'	1093'	aquifer
Kirtland	1093'	1777'	gas
Fruitland	1777'	2334'	gas
Pictured Cliffs	2334'	2480'	gas
Lewis	2480'	3068'	gas
<b>Intermediate TD</b>	<b>2580'</b>		
Mesa Verde	3068'	3339'	gas
Chacra	3339'	3920'	gas
Massive Cliff House	3920'	4045'	gas
Menefee	4045'	4639'	gas
Massive Point Lookout	4639'	5011'	gas
Mancos	5011'	5888'	gas
Gallup	5888'	6627'	gas
Greenhorn	6627'	6683'	gas
Graneros	6683'	6747'	gas
Dakota	6747'		gas
<b>TD</b>	<b>7115'</b>		

### Logging Program:

Cased hole - CBL-CCL-GR - TD to surface  
Open hole - Platform Express: GR/AIT from TD to 3050',  
Rho/Neutron from TD to minimum ops depth  
Mudlog - 6527' to TD  
Cores - none

### Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200- 2580'	LSND	8.4-9.0	30-60	no control
2580- 6730'	Air/N2	n/a	n/a	n/a
6730- 7115'	LSND	8.4-9.0	30-60	no control

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

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

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 2580'	7"	20.0#	J-55
6 1/4"	2480' - 7115'	4 1/2"	10.5#	J-55

### Tubing Program:

0' - 7115'      2 3/8"      4.7#      J-55

### BOP Specifications, Wellhead and Tests:

#### Surface to Intermediate TD -

11" 3000 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" 3000 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, 3000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**

~~7 1/16" 3000 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# celloflake/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/256 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx. Tail w/90 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent (775 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.

**See attached alternative intermediate lead slurry.**

7" intermediate casing alternative two stage: Stage collar at 1677'. First stage: cement with 212 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent. Second stage: 195 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx (775 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 1093'. Two turbolating centralizers at the base of the Ojo Alamo at 1093'. 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 -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 462 sx 50/50 Class "G" Poz with 5% gel, 0.25# celloflake/sx, 5# gilsonite/sx, 0.1% retardant and 0.25% fluid loss additive, 0.15% dispersant, 0.1% antifoam agent (665 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

4 1/2" production casing alternative: Lead w/185 sx 9.5 PPG Litecrete Blend w/0.11% dispersant, 0.5% fluid loss. Tail w/171 sx Class G 50/50 poz w/5% gel, 0.25 pps celloflake, 5 pps gilsonite, 0.25% fluid loss, 0.15% dispersant, 0.1% retarder, 0.1% antifoam (713 cu.ft., 50% excess to cement 4 1/2" x 7" overlap).

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.

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.