UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2001 SEP 22 PM 1:33
070 FARMINGTON, NM

1a. **Type of Work**
DRILL

5. **Lease Number**
SF-080672
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**
San Juan 27-4 Unit

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. **Farm or Lease Name**
San Juan 27-4 Unit

9. **Well Number**
155

4. **Location of Well**
2225' FSL, 2450' FWL

Latitude 36° 33.5, Longitude 107° 12

10. **Field, Pool, Wildcat**
Blanco Mesaverde

11. **Sec., Twn, Rge, Mer. (NMPM)**
K Sec. 24, T-27-N, R-4-W

API# 30-039- 26518

DEC 2001
RECEIVED
OIL CON. DIV.
DIST. 3

14. **Distance in Miles from Nearest Town**
23 miles from Gobernador

12. **County** Rio Arriba
13. **State** NM

15. **Distance from Proposed Location to Nearest Property or Lease Line**
2225'

16. **Acres in Lease**

17. **Acres Assigned to Well**
320 W/2

18. **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**
1600'

19. **Proposed Depth**
6657'

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

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
7275' GR

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

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

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

24. **Authorized by:** Regulatory/Compliance Supervisor — 8-17-00 Date

PERMIT NO. _____ **APPROVAL DATE** 12/13/01

APPROVED BY _____ **TITLE** AFM **DATE** 12/13/01

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.

NMOCD

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

200 SEP 22 PM 1:33
070 FARMINGTON, NM

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

¹API Number	²Pool Code	³Pool Name	
30-039-26518	72319	Blanco Mesaverde	
⁴Property Code	⁵Property Name		⁶Well Number
7452	SAN JUAN 27-4 UNIT		155
⁷OGRID No.	⁸Operator Name		⁹Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY		7275'

¹⁰ Surface Location

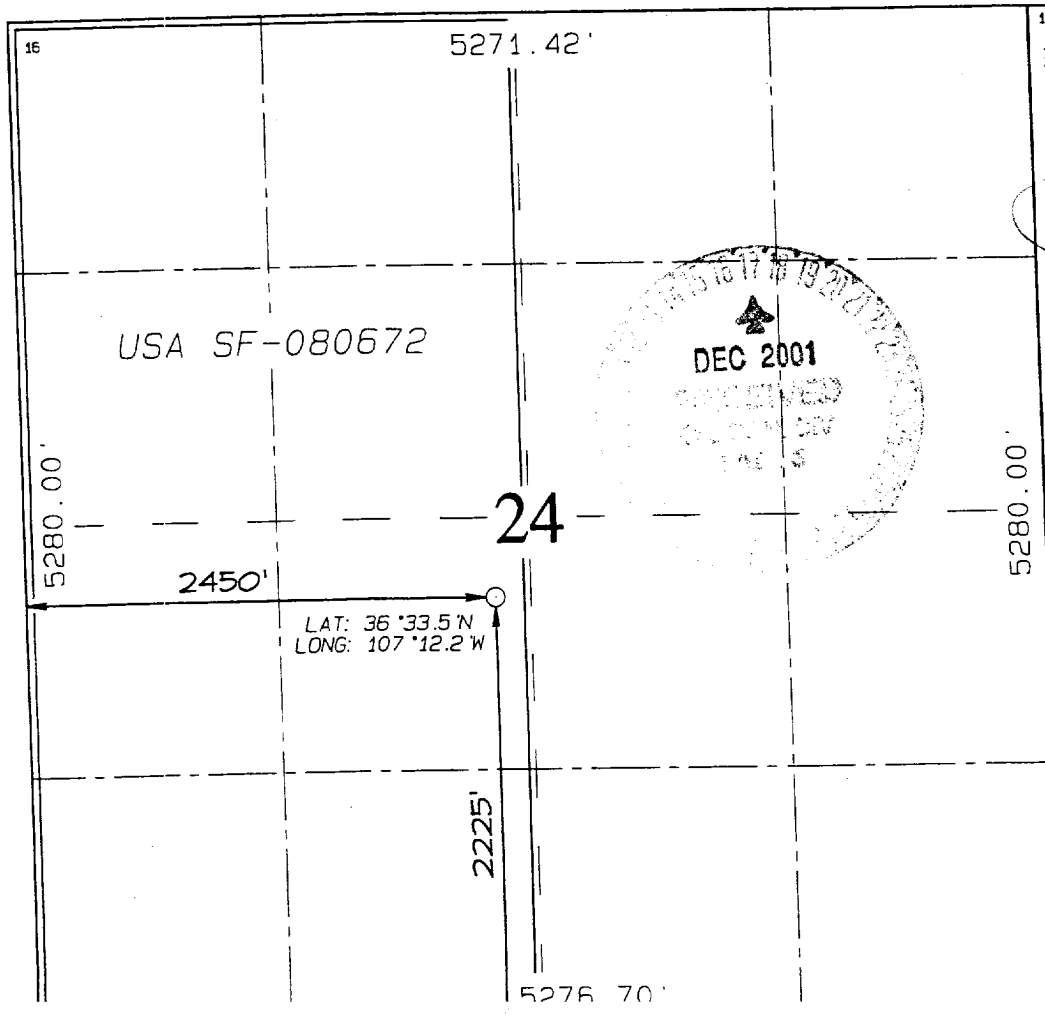
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	24	27N	4W		2225	SOUTH	2450	WEST	RIO ARRIBA

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.
W/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

Peggy Cole
Signature

Peggy Cole
Printed Name

Regulatory Supervisor
Title

8-17-00
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.

JULY 14, 2000
Date of Survey

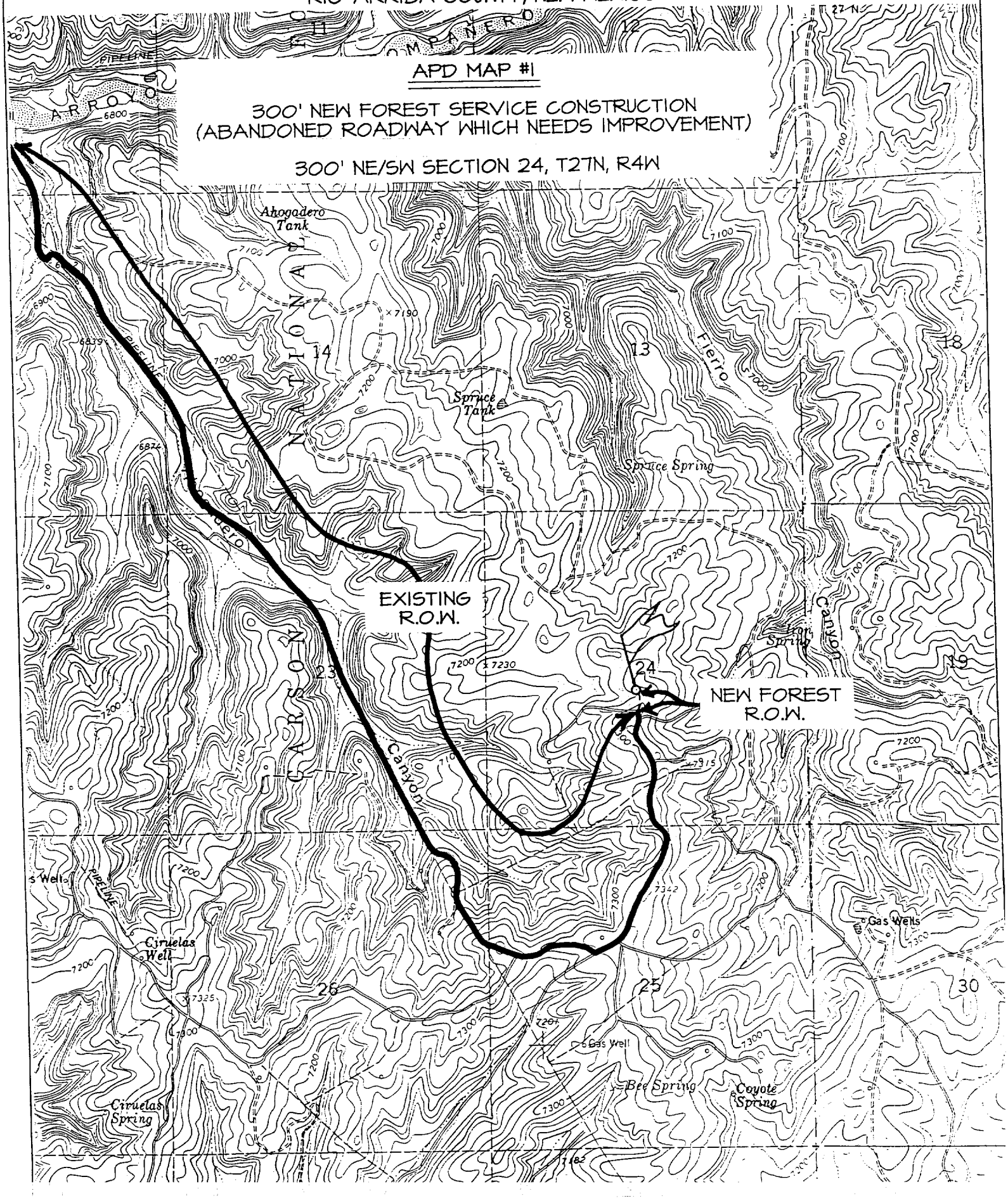
Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number 6857

BURLINGTON RESOURCES OIL & GAS COMPANY SAN JUAN 27-4 UNIT #155

2225' FSL & 2450' FWL, SECTION 24, T27N, R4W, N.M.P.M.
RIO ARRIBA COUNTY, NEW MEXICO



submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

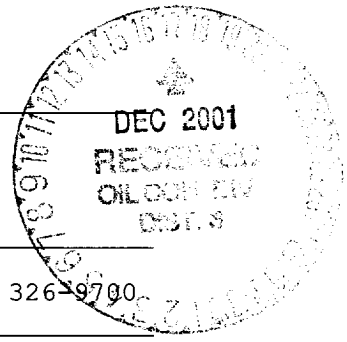
Sundry Notices and Reports on Wells

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**
2225'FSL, 2450'FWL, Sec.24, T-27-N, R-4-W, NMPM



5. **Lease Number**
SF-080672
6. **If Indian, All. or Tribe Name**
7. **Unit Agreement Name**
San Juan 27-4 Unit
8. **Well Name & Number**
San Juan 27-4 U #155
9. **API Well No.**
30-039-
10. **Field and Pool**
Blanco Mesaverde
11. **County and State**
Rio Arriba Co, NM

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

Type of Submission	Type of Action		
_X_ Notice of Intent	___ Abandonment	_X_ Change of Plans	
	___ Recompletion	___ New Construction	
___ Subsequent Report	___ Plugging Back	___ Non-Routine Fracturing	
	___ Casing Repair	___ Water Shut off	
___ Final Abandonment	_X_ Altering Casing	___ Conversion to Injection	
	___ Other -		

13. **Describe Proposed or Completed Operations**

It is intended to alter the submitted casing depths and cement of the subject well.

Revisions:

Mud Program:

Interval	Type	Weight	Fluid Loss
200-4452'	LSND	8.4-9.0	No control
4452-6657'	Air/Mist	n/a	n/a

Casing Program:

Hole Size	Depth Interval	Casing Size	Weight	Grade
8 3/4"	0-4452'	7"	20.0#	J-55
6 1/4"	4352-6657'	4 1/2"	10.5#	J-55

Cementing Program:

7" intermediate casing - lead w/478 sx Class "G" 50/50 TXI Lightweight cement with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Celloflake, 0.2% antifoam agent. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.25 pps Celloflake, 0.1% antifoam (1349 cu.ft. of slurry, 100% excess to circulate to surface).

7" intermediate casing alternative two stage: Stage collar at 3656'. First stage: cement with 187 sx Class "G" 50/50 TXI Lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Celloflake, 0.2% antifoam. Second stage: 430 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.25 pps Celloflake, 0.1% antifoam (1349 cu.ft., 100% excess to surface).

4 1/2" production liner - cement with 232 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Celloflake, 5 pps Gilsonite, 0.25% fluid loss, 0.35% dispersant, 0.1% antifoam (331 cu.ft., 40% excess to circulate liner top).

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

Signed Peggy Cole Title Regulatory Supervisor Date 11/15/00

no

(This space for Federal or State Office use)

APPROVED BY [illegible] Title AFM Date 12/13/01

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OPERATIONS PLAN

Well Name: San Juan 27-4 Unit #155
Location: 2225'FSL, 2450'FWL, Section 24, T-27-N, R-4-W
Rio Arriba County, New Mexico
Latitude 36° 33.5, Longitude 107° 12.2
Formation: Blanco Mesa Verde
Elevation: 7275'GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	3549'	
Ojo Alamo	3549'	3742'	aquifer
Kirtland	3742'	3756'	
Fruitland	3756'	4102'	gas
Pictured Cliffs	4102'	4202'	gas
Lewis	4202'	4617'	gas
Intermediate TD	**4302'**		
Huerfanito Bentonite	4617'	5072'	gas
Chacra	5072'	5888'	gas
Massive Cliff House	5888'	5957'	gas
Menefee	5957'	6257'	gas
Point Lookout	6257'		gas
Total Depth	**6657'**		

Logging Program:
Mud Logs/Coring/DST -
Mud logs - none
Coring - none
DST - none
Open hole - AIT, CNL-CDL - TD to intermediate casing, CNL - intermediate casing to surface
Cased hole - Gamma Ray, Cement bond - surface to TD

Mud Program:

Interval- MD	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-9.0	40-50	no control
200- 4302'	LSND	8.4-9.0	30-60	no control
4302- 6657'	Air/Mist/N2*	n/a	n/a	n/a

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

*Nitrogen might be used in conjunction with or instead of air to prevent a down hole fire.

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

Hole Size	Measured Depth	Csg Size	Weight	Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 4302'	7"	20.0#	J-55
6 1/4"	4302' - 6657'	4 1/2"	10.5#	J-55

Tubing Program: 0' -6657' 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 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 drill crew.
- All BOP tests & 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/407 sx Class "B" w/3% sodium metasilicate, 10# gilsonite/sx and 0.5# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% gel, 2% calcium chloride, 5# gilsonite/sx, 0.1% antifoam and 0.25# flocele/sx (1294 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 to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 3656'. First stage: cement with 154 sx Class "B" 50/50 poz w/2% gel, 5 pps Gilsonite, 2% calcium chloride, 0.5 pps Cellophane. Second stage: 379 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 10 pps Gilsonite (1294 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 3742'. Two turbolating centralizers at the base of the Ojo Alamo at 3742'. 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 circulate liner top. Pump 250 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 4% gel, 0.1% retardant, 5# gilsonite/sx, 0.3% fluid loss additive, 0.35% dispersant (353 cu.ft., 40% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

100' min overlap

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- 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 (Air/Mist Drilling):

The following equipment will be operational while air/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.
- 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 Mesa Verde formation will be completed.
- 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

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of Section 24 is dedicated to the Mesa Verde.
- This gas is dedicated.

Drilling Engineer

Date