

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0136  
Expires: February 28, 1995

# APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. Type of Work

DRILL ☒

DEEPEN ☐

b. Type of Well

Oil Well ☐

Gas Well ☒

Other ☐

Single Well ☒

Multiple Zone ☐

2. Name of Operator

**Merrion Oil & Gas Corporation**

3. Address and Telephone No.

610 Reilly Ave Farmington NM 87401  
ph: (505) 327-9801

4. Location of Well (Footages)

At Surface 875' fsl & 1855' fel (sw se)

At proposed prod. zone Same

14. Distance in Miles and Directions from Nearest Town or Post Office

Approximately 4 miles northeast of Lindrieth, NM

5. Lease Designation and Serial No.  
NM-106647

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

**Chunky Monkey No. 1**

9. API Well No.

30-039-29229

10. Field and Pool, or Exploratory Area  
Gavilan PC/Basin Fruitland

11. Sec., T., R., M., or BLK.  
and Survey or Area

Section 2, T24N, R2W

12. County or Parish  
Rio Arriba

13. State  
NM

15. Distance from Proposed Location to Nearest Property or Lease Line, Ft 785'

16. No. of Acres in Lease 320 acres

17. No. of Acres Assigned to This Well  
324.88 - FE  
320 acres 140 - PC

18. Distance from Proposed Location To Nearest Well Drilling, Completed, Or Applied for, on this Lease, FT 1031' (P&A)

19. Proposed Depth 3500'

20. Rotary or Cable Tools Rotary

21. Elevations (Show whether DF, RT, GR, etc)  
7254' GR, 7259' RKB

22. Approximate Date Work will Start  
July 30, 2004

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8" J55	32.3 ppf	~240' KB	~150 cuft (100% excess)
8 3/4"	7" J55	23 ppf	~3240' KB	~779 cuft (60% excess)
6 1/4"	4 1/2" J55 Liner	11.6 ppf	~3500' KB	~85 cuft (60% excess)

Merrion proposes to drill 12 1/4" hole with spud mud to ~240' and set 9 5/8" 32.3# J55 surface casing, cement to surface with ~150 cuft (100% excess). Will drill 8 3/4" hole to ~3240' KB with low solids non-dispersed mud system. May run open-hole surveys.

Will set 7" 23 ppf J55 intermediate casing from ~3240' KB to surface and cement in one stage. Will cement with 10 bbls of mud cleaner, 5 bbls of H<sub>2</sub>O, followed by ~652 cuft Premium Lite and tail in with ~127 cuft (60% excess) Type III cement to fill from total depth to surface.

Top of Cement should circulate to surface (will adjust volumes based upon caliper log if available). If cement does not reach surface, a temperature log or cement bond log will be run to determine top of cement. A cementing chronology will be recorded and submitted to the BLM after completion of the job.

Will wait on cement minimum of 12 hours. Will rig up air equipment and air drill out with 6 1/4" bit to total depth ~3500' KB through Pictured Cliffs interval. Will circulate hole clean and test for natural inflows. Will run open-hole surveys. Will run a 4 1/2" 11.6 ppf J55 production liner from ~3130' KB to TD @ 3500' KB. Will cement with 10 bbls conditioning spacer, 5 bbl fresh water spacer followed by ~85 cuft (60% excess) of Premium Lite to bring cement above liner hanger.

The production liner will be centralized through the Pictured Cliffs and Basin Fruitland intervals.

Will test PC and Fruitland through perforated casing. Will fracture stimulate and put on for production test. Drilling operations below surface casing will be conducted with a double ram BOP with a rotating head for air drilling in place, minimum working pressure 1000 psig. Additional drilling technical details attached.

Gas sales tie-in will be on lease. No off-lease ROW is required for this project. Existing access road is from the south and pipeline is on adjacent location.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal to deepen, give present productive zone and proposed new productive zone.

COPIES: BLM+4, WELL FILE+1

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

Signed

Connie S. Dinning

Title Production Engineer

Date June 25, 2004

(This space for Federal or State office use)

Permit No.

Approval Date

Application approval does not warrant or certify that applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any:

APPROVED BY:

/s/ David R. Sitzer

Assistant Field Manager

SEP 16 2004

TITLE

DATE

State of New Mexico  
Energy, Minerals & Mining Resources Department  
OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

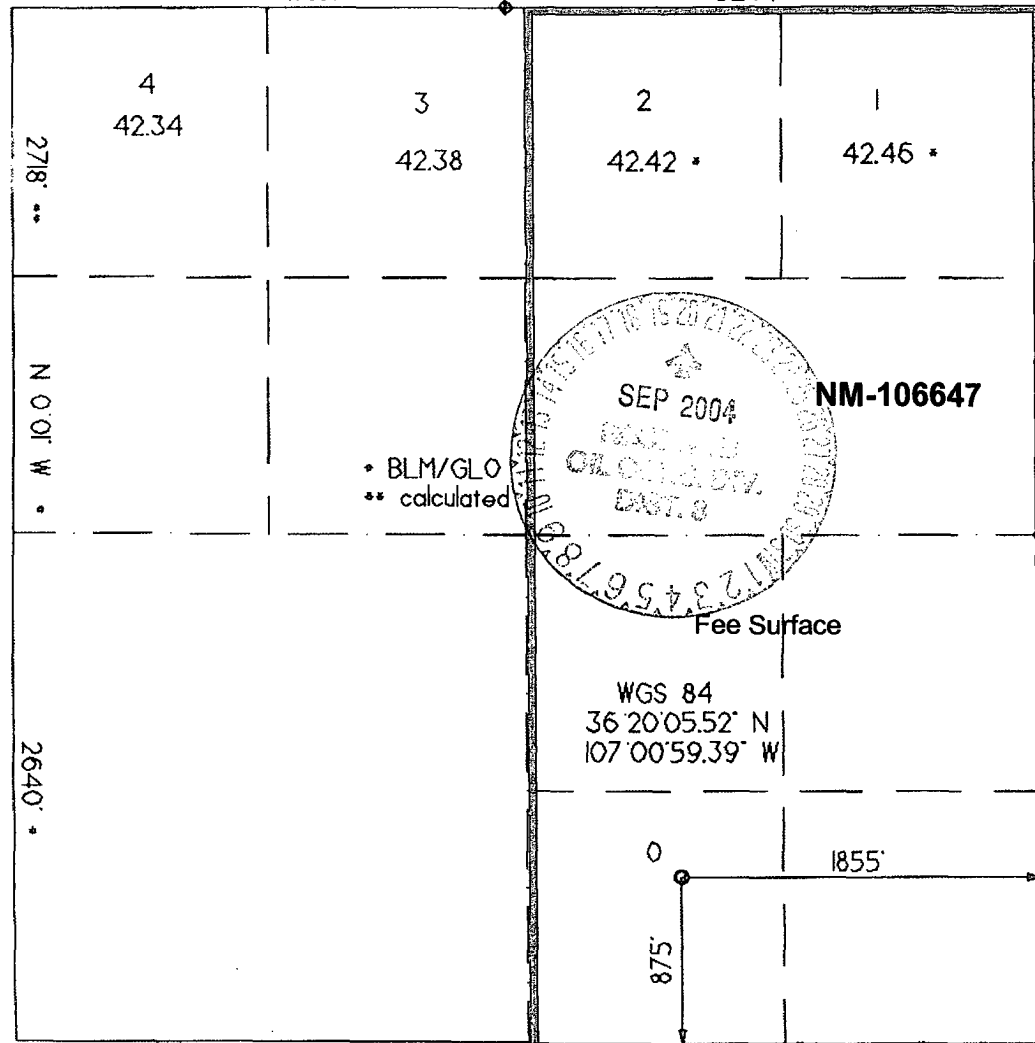
APA Number <b>30-039-29229</b>	Pool Code 71629	Pool Name Basin Fruitland
Property Code <b>34302</b>	Property Name CHUNKY MONKEY	Well Number 1
OGRD No. 014634	Operator Name MERRION OIL & GAS	Elevation 7254'

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Ltn	Feet from >	North/South	Feet from >	East/West	County
0	2	24 N.	2 W.	NWNE	875'	SOUTH	1855'	EAST	RIO ARriba

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Ltn	Feet from >	North/South	Feet from >	East/West	County

Dedication <b>324.88 FC</b> <b>160. PC</b>	Joint ?	Consolidation	Order No.
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NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION  
West \* 5284' \*



<b>OPERATOR CERTIFICATION</b>	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	<i>[Signature]</i>
Printed Name	Connie Dinning
Title	Production Engineer
Date	June 25, 2004
<b>SURVEYOR CERTIFICATION</b>	
I hereby certify that the well location 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	6/18/04
Signature and Seal of Professional Surveyor	<i>[Signature]</i> 

State of New Mexico  
Energy, Minerals & Mining Resources Department  
OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

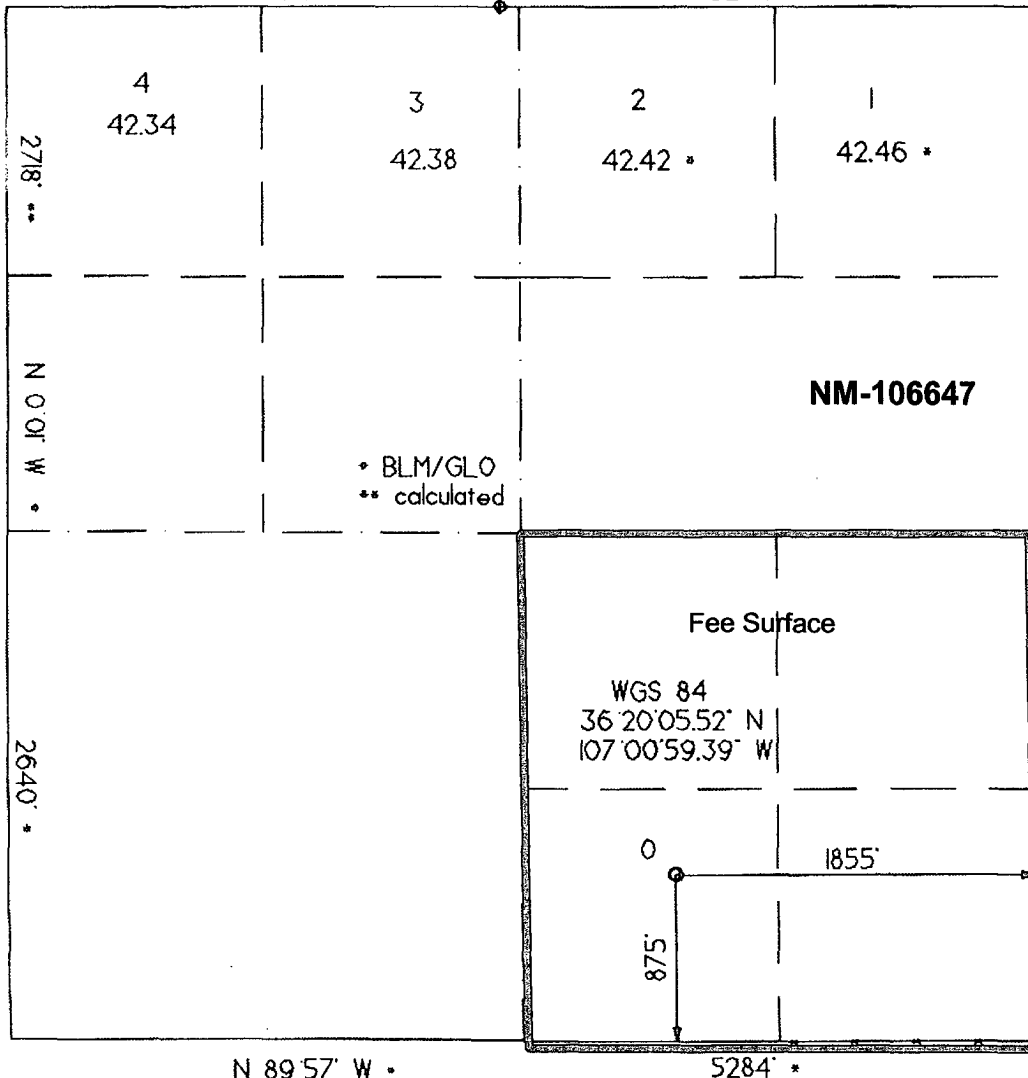
APA Number <b>30-039-29229</b>	Pool Code 77360	Pool Name Gavilan Pictured Cliffs
Property Code <b>34302</b>	Property Name CHUNKY MONKEY	
OGRD No. 014634	Operator Name MERRION OIL & GAS	
		Well Number 1
		Elevation 7254'

Surface Location									
UL or Lot	Sec	Twp.	Rgs.	Lot Lbl.	Feet from >	North/South	Feet from >	East/West	County
0	2	24 N.	2 W.	NWNE	875'	SOUTH	1855'	EAST	RIO ARRIBA

Bottom Hole Location If Different From Surface									
UL or Lot	Sec	Twp.	Rgs.	Lot Lbl.	Feet from >	North/South	Feet from >	East/West	County

Dedication 160 Ac	Joint ?	Consolidation	Order No.
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NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
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West \* 5284\*\*



NOTE: 2725' 2638'

<b>OPERATOR CERTIFICATION</b>	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	
Printed Name	Connie Dinning
Title	Production Engineer
Date	June 25, 2004
<b>SURVEYOR CERTIFICATION</b>	
I hereby certify that the well location 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	6/18/04
Signature and Seal of Professional Surveyor	

# MERRION OIL & GAS CORPORATION

## DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

### *Chunky Monkey No. 1*

875' fsl & 1855' fel (sw se)  
Section 2, T24N, R2W, NMPM  
Rio Arriba County, New Mexico

#### **1. ESTIMATED FORMATION TOPS:**

<u>Formation</u>	<u>Depth-MD</u>
Undiff. Tertiary	Surface
Nacimiento	1605'
Ojo Alamo	2992'
Kirtland	3210'
Fruitland	3260'
Pictured Cliffs	3340'
Total Depth	3500'

#### **2. WELL CONTROL SYSTEM**

- A. Proposed blowout preventer system (schematic drawing follows) is a double-ram type preventer, and will be used in 1000 psi service.
- B. Minimum required working pressure rating for BOP stack is 1000 psi. Maximum anticipated bottomhole pressure = 910 psi. Well Control Anticipated Surface Pressure (ASP) = 910 psi -  $(0.22 * 3500') = 140$  psi, assuming a partially gas cut column per BLM guidelines.
- C. BOP pressure testing will be conducted at time of installation and prior to drillout of surface casing shoe. Ram type preventer will be tested to 500 psi. The BOPs will be activated on each trip for a bit and recorded in the driller's log. A choke manifold will be installed (Refer to the enclosed schematic drawing). Working pressure for choke manifold is greater than 2000 psi. In addition, a kill line from the mud pump will be installed.
- D. Stabbing valves for drill pipe and drill collars will be available on the rig floor. A Kelly cock valve will be installed.
- E. Anticipated formation pressures average 0.26 psi/ft gradient and formation fracture initiation pressures are anticipated to exceed the maximum mud weight of 9.2 ppg except through the depleted Pictured Cliffs pay interval where air drilling will be used.

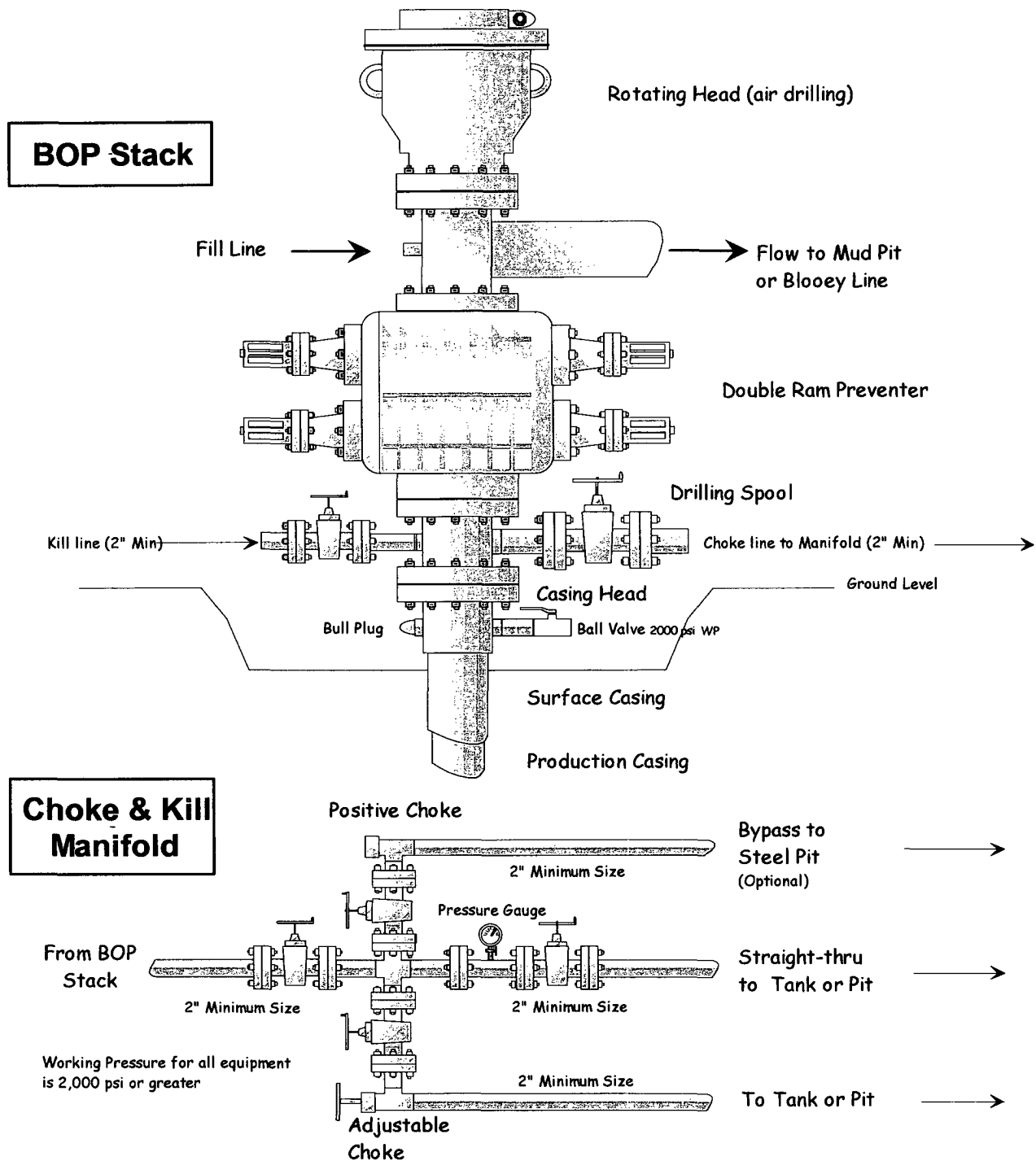
#### **3. DRILLING MUD PROGRAM**

- A. A 12 1/4" surface hole will be drilled with fresh water system, lime and gel added to provide viscosity as needed.
- B. An 8 3/4" hole will be drilled to ~ 3240' utilizing a low solids non-dispersed mud system. Additives such as starch, cmc, and others will be used to control mud characteristics as necessary. No materials of a hazardous nature will be added to the drilling fluid in hazardous quantities.

# Merrion Oil & Gas Corporation

## Well Control Equipment Schematic for 1M Service

Attachment to Drilling Technical Program



Lost circulation materials will be stored on location.

Mud weighting materials will be stored on location.

<u>INTERVAL</u>	<u>MUD SYSTEM</u>	<u>WEIGHT #/GAL</u>	<u>VISCOSITY SEC/QT</u>	<u>WATER LOSS CC</u>
0 – 240'	Native	< 9.0	35-55	NA
240' – 3240'±LSND	8.6-9.2	28-45	NA	
3240' – 3600'±	Air	NA		

Maximum anticipated mud weight is 9.2 lb/gal (0.48 psi/ft).

- C. Mud trip monitoring will be done visually.

#### 4. **HAZARDS**

- A. Abnormal Pressure is not expected to be a problem because air drilling will be utilized through potential lost circulation zones.
- B. Lost circulation is not expected to be a problem in this area. Lost circulation materials will be stored on location and mud weights will be controlled.
- C. No H<sub>2</sub>S is expected. However, should H<sub>2</sub>S be found during drilling, detection and warning equipment will be installed.
- D. Unintentional hole deviation is not expected to be a problem. Single shot surveys giving hole inclination will be run a minimum of every 500 feet.

#### 5. **LOGGING AND TESTING**

- A. An induction, neutron-density log may be run in the intermediate casing hole across zones of interest. In addition, an induction-density log will be run from total depth back to intermediate casing.
- B. Drill stem tests will not be run.
- C. No coring is anticipated.
- D. A mud logging unit may be used during drilling.

#### 6. **CASING PROGRAM**

- A. Casing:

	Description	Top	Bottom
1	9 5/8" 32.3 ppf J55	Surface	240 ft ±
2	7" 23 ppf J55	Surface	32400 ft ±
3	4 1/2" 11.6 ppf J55	3130 ft ±	3500 ft ±

Merrion requests that a variance be granted to allow us to set surface casing at the proposed depth of ± 240' because this setting depth has been shown to be adequate as demonstrated by the innumerable

wells that have been previously drilled in the area without incident. In addition, the potential for a gas kick is very low.

Estimated formation pore pressure gradient is ~0.26 psi/ft.

B. For a proposed wellbore schematic see below:

