Form 3160-3
(July 1992)

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

04 MAY 28 PM 2:59
070 ALBUQUERQUE, N.M.

5. Lease Designation and Serial No.: NM-106650

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1a. Type of Work: DRILL ☒ DEEPEN ☐

b. Type of Well: Oil Well ☐ Gas Well ☒ Other ☐ Single Well ☒ Multiple Zone ☐

8. Well Name and No.: Bunny Tracks No. 1

2. Name of Operator: Merrion Oil & Gas Corporation

3. Address and Telephone No.: 610 Reilly Ave Farmington NM 87401
ph: (505) 327-9801

9. API Well No.: 30-039-29389

4. Location of Well (Footages)
At Surface: 1855' fnl & 670' fwl (sw nw)
At proposed prod. zone: Same

10. Field and Pool, or Exploratory Area: ~~Gavilan~~ PC/Basin Fruitland Blanco, South

11. Sec., T., R., M., or BLK. and Survey or Area: Section 14, T24N, R2W

JAN 2005 OIL CONS. DIV. DIST. 3

14. Distance in Miles and Directions from Nearest Town or Post Office: Approximately 1.5 miles northeast of Lindrith, NM

12. County or Parish: Rio Arriba

13. State: NM

15. Distance from Proposed Location to Nearest Property or Lease Line, Ft (Also to nearest drlg. unit line, if any)	16. No. of Acres in Lease	17. No. of Acres Assigned to This Well
670'	320 acres	320 acres N/2 FC 160 NW/4 PC
18. Distance from Proposed Location To Nearest Well Drilling, Completed, Or Applied for, on this Lease, FT	**19. Proposed Depth**	**20. Rotary or Cable Tools**
1137' (P&A)	~3500'	Rotary
21. Elevations (Show whether DF, RT, GR, etc)		**22. Approximate Date Work will Start**
7304' GR, 7309' RKB		July 15, 2004

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 ¼"	9 ⅝" J55	32.3 ppf	~240' KB	~150 cuft (100% excess)
8 ¾"	7" J55	23 ppf	~3260' KB	~784 cuft (60% excess)
6 ¼"	4 ½" J55 Liner	11.6 ppf	~3500' KB	~85 cuft (60% excess)

Merrion proposes to drill 12 ¼" hole with spud mud to ~240' and set 9 ⅝" 32.3# J55 surface casing, cement to surface with ~150 cuft (100% excess). Will drill 8 ¾" hole to ~3260' KB with low solids non-dispersed mud system. May run open-hole surveys.

Will set 7" 23 ppf J55 intermediate casing from ~3260' KB to surface and cement in one stage. Will cement with 10 bbls of mud cleaner, 5 bbls of H_2O, followed by ~649 cuft Premium Lite and tail in with ~135 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 ¼" 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 ½" 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 approximately 665' from location. Access will require approximately 565' of new road on lease, and a short portion on fee land that will be negotiated w/ the landowner.

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 May 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. Sitzler Title Assistant Field Manager Date JAN 3 2005

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

API Number	Pool Code	Pool Name
30-039-29389	71629	Basin Fruitland

Property Code	Property Name	Well Number
34574	BUNNY TRACKS	1

OGRID No.	Operator Name	Elevation
014634	MERRION OIL & GAS	7304'

Surface Location

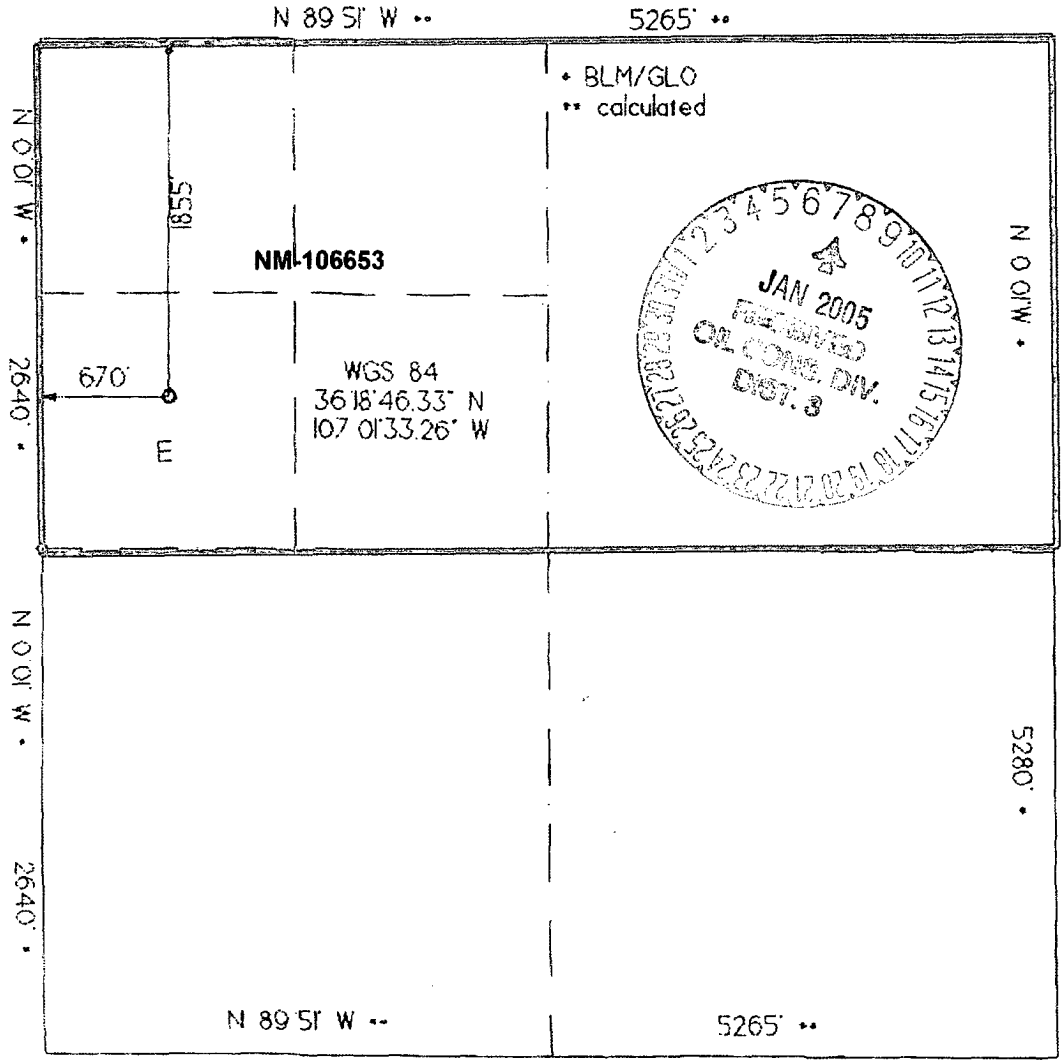
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County
E	14	24 N.	2 W.	SW NW	1855'	NORTH	670'	WEST	RIO ARRIBA

Bottom Hole Location If Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County

Dedication	Joint ?	Consolidation	Order No.
320			

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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: May 25, 2004

SURVEYOR CERTIFICATION

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: 5/19/04

Signature and Seal of Professional Surveyor:

GERALD G. HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR

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

API Number	Pool Code	Pool Name
30-039-29389	72439 ~~77360~~	Blanco ~~Gavilan~~ Pictured Cliffs South

Property Code	Property Name	Well Number
	BUNNY TRACKS	1

OGRID No.	Operator Name	Elevation
014634	MERRION OIL & GAS	7304'

Surface Location

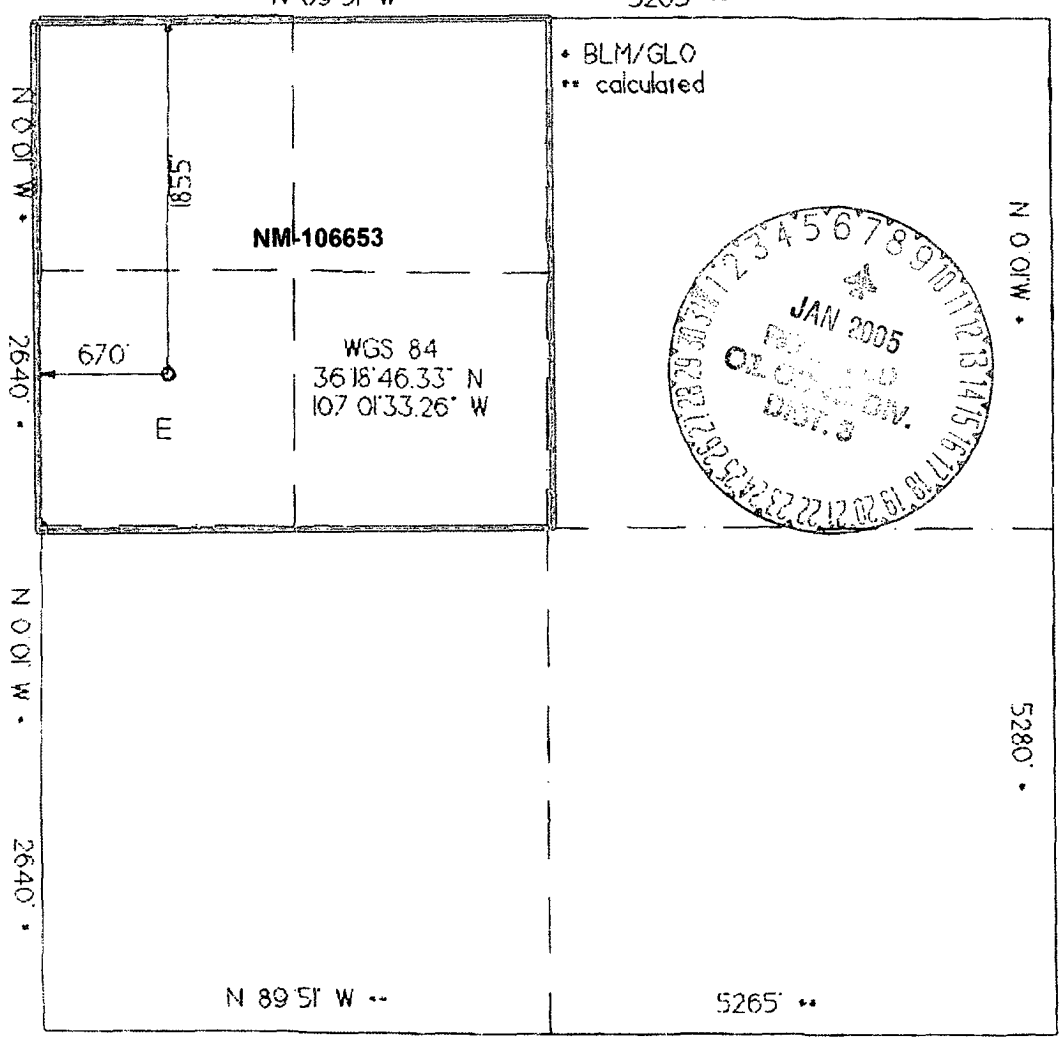
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County
E	14	24 N.	2 W.	SW NW	1855'	NORTH	670'	WEST	RIO ARRIBA

Bottom Hole Location If Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County

Dedication	Joint ?	Consolidation	Order No.
160			

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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Signature

Printed Name: Connie Dinning

Title: Production Engineer

Date: May 25, 2004

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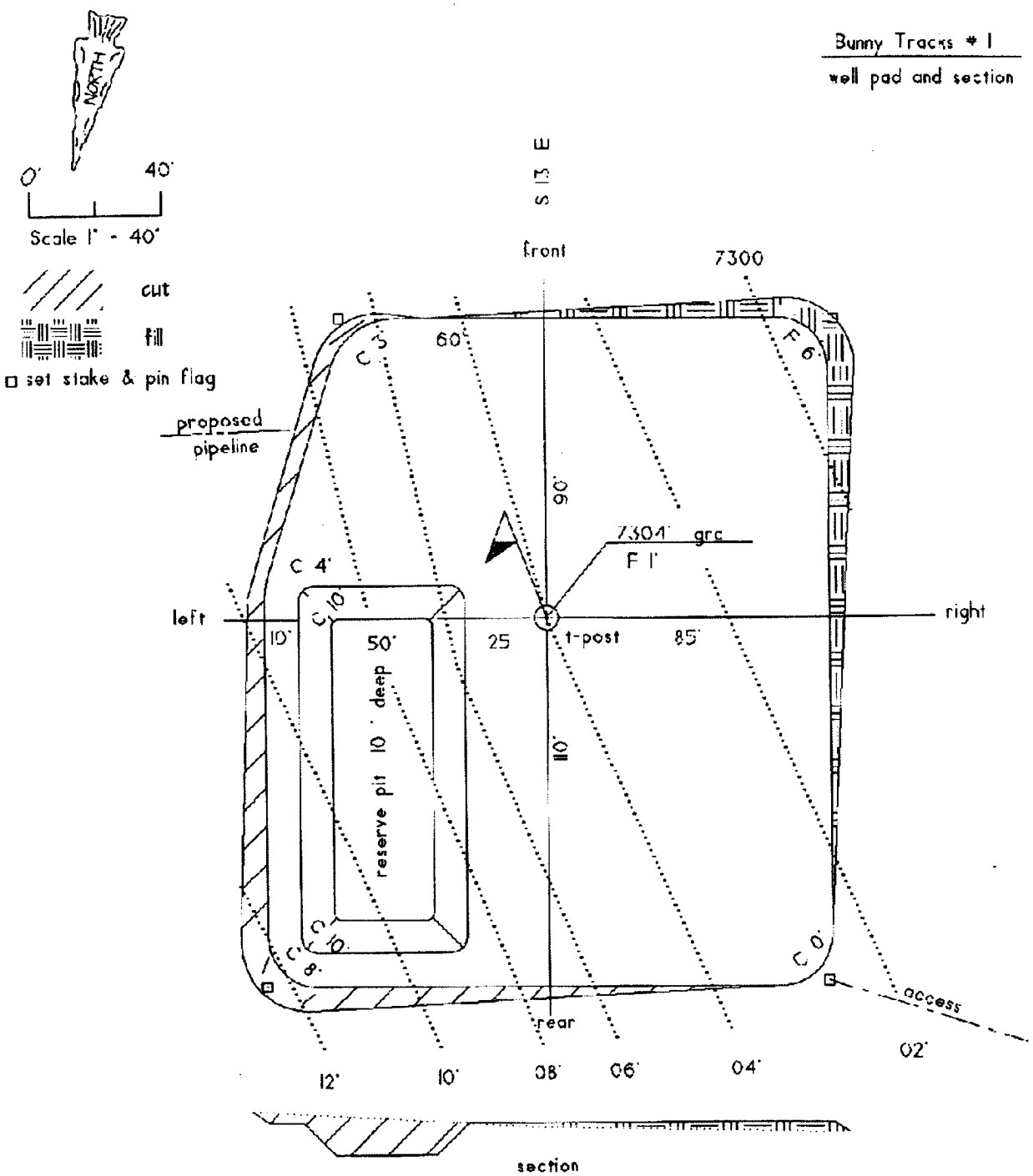
Date of Survey: 5/19/'04

Signature and Seal of Professional Surveyor:

GERALD D. PRUDLESTON
NEW MEXICO
6644
REGISTERED LAND SURVEYOR

6. CONSTRUCTION MATERIALS

A. No construction materials are needed for drilling and access roads into the drilling location. The existing surface materials will be sufficient and will be provided by the Dirt Contractor as needed.



B. No construction materials will be taken off Federal or Indian lands.

C. No surface materials for construction of access roads are required.

D. All major access roads presently exist as shown on topographic map.

MERRION OIL & GAS CORPORATION

DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

Bunny Tracks No. 1

1855' fnl & 670' fwl (sw nw)
Section 14, T24N, R2W, NMPM
Rio Arriba County, New Mexico

1. *ESTIMATED FORMATION TOPS:*

Formation	***Depth-MD***
Undiff. Tertiary	Surface
Nacimiento	1570'
Ojo Alamo	2875'
Kirtland	3140'
Fruitland	3275'
Pictured Cliffs	3348'
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) = 902 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*

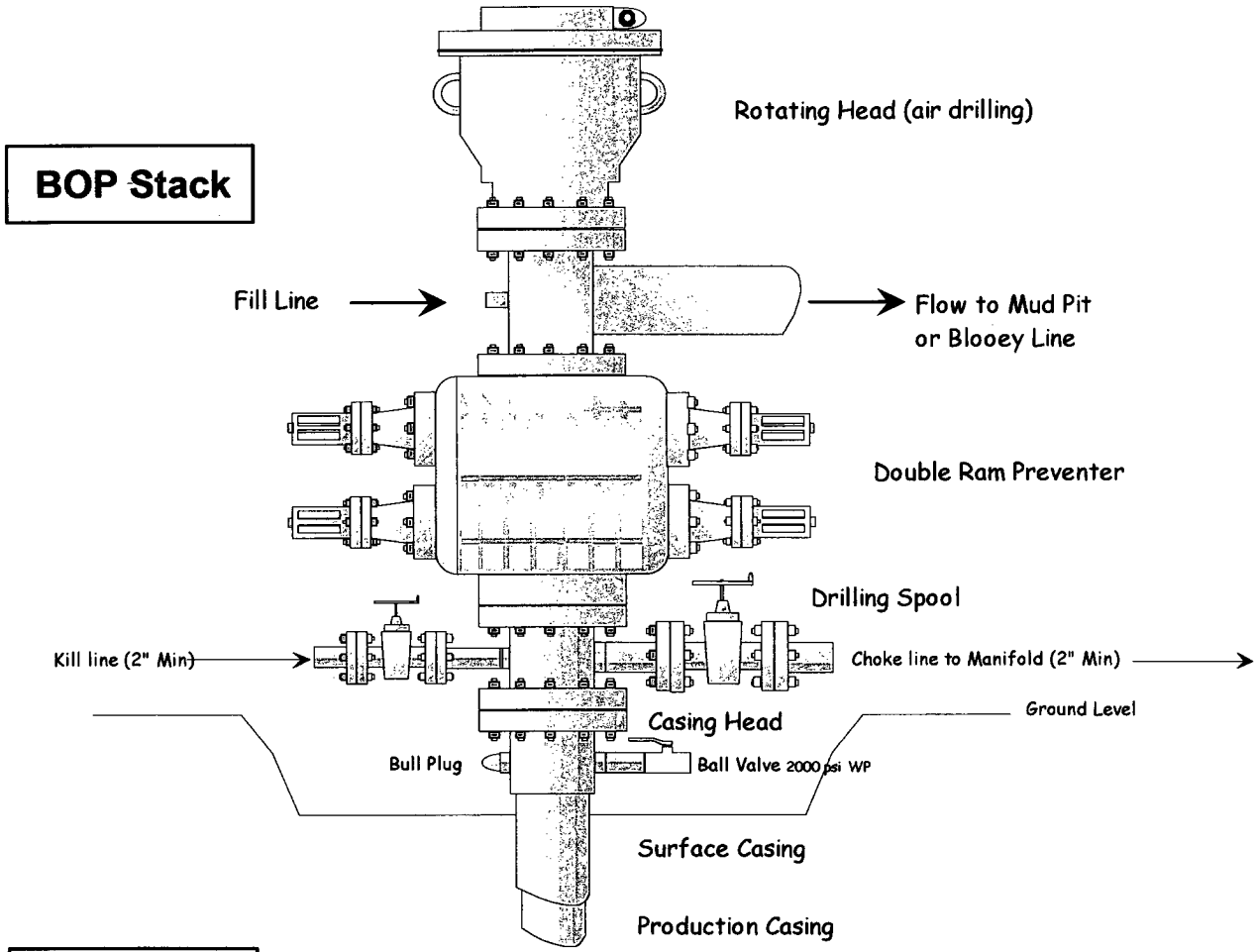
A. A 12 ¼" surface hole will be drilled with fresh water system, lime and gel added to provide viscosity as needed.

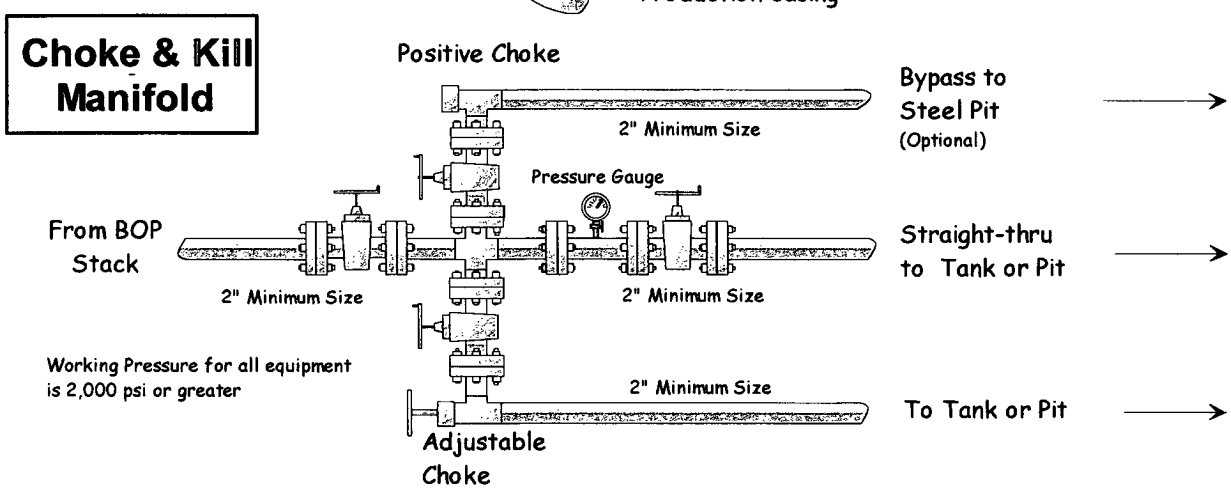
B. An 8 ¾" hole will be drilled to ~ 3260' utilizing a low solids non-dispersed mud system. Additives such as starch, cmc, and others will be used to control mud characteristics as necessary. No materials of a hazardous nature will be added to the drilling fluid in hazardous quantities.

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.

INTERVAL	*MUD SYSTEM*	*WEIGHT #/GAL*	*VISCOSITY SEC/QT*	*WATER LOSS CC*
0 – 240'	Native	< 9.0	35-55	NA
240' – 3260'±LSND	8.6-9.2	28-45	NA	
3260' – 3500'±	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_2S is expected. However, should H_2S 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 ⅝" 32.3 ppf J55	Surface	240 ft ±
2	7" 23 ppf J55	Surface	3260 ft ±
3	4 ½" 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 inumberable

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: