

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
Budget Bureau No. 1004-0136
Expires: February 28, 1995

ROW/APD

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. Type of Work

DRILL ☒DEEPEN ☐

2003 AUG 13 AM 11:00

b. Type of Well

070 Farmington, NM

Oil Well ☐ Gas Well ☒ Other ☐Single Well ☒Multiple Zone ☐

2. Name of Operator

Merrion Oil & Gas Corporation

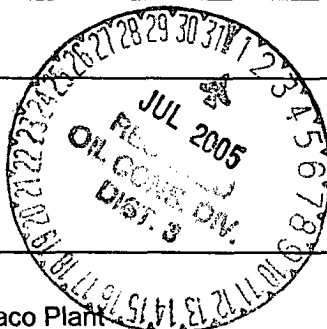
3. Address and Telephone No.

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

4. Location of Well (Footages)

At Surface 2595' fnl & 1951' fwl (se nw)

At proposed prod. zone Same

5. Lease Designation and Serial No.
SF-080384-B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Hiccup A No. 3

9. API Well No.

3004531844

10. Field and Pool, or Exploratory Area
Basin Fruitland Coal11. Sec., T., R., M., or BLK.
and Survey or Area

F Section 3, T26N, R12W

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

18 miles south of Farmington NM, near Chaco Plant

12. County or Parish
San Juan13. State
NM15. Distance from Proposed Location to Nearest
(Also to nearest drlg. unit line, if any)

Property or Lease Line, Ft 689'

16. No. of Acres in Lease

318.9 acres

17. No. of Acres Assigned to This Well

318.9 acres w/2

18. Distance from Proposed Location to Nearest Well Drilling, Completed, or Applied for, on this Lease, FT

~1423'

19. Proposed Depth

~1530'

20. Rotary or Cable Tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc)

6075' GR, 6080' RKB

22. Approximate Date Work will Start

As soon as permitted

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7" J55	20 ppf or greater	~120' KB	~30 sx (35 cuft)
6-1/4"	4-1/2" J55	10.5 ppf or greater	~1530' KB	~116 sx (187 cuft)

Merrion proposes to drill 8-3/4" hole with native mud to approx 120' and set 7" 20# or greater J55 surface casing, cement to surface with ~30 sx 'B' w/ 2% CaCl2 (35 cuft). Will drill 6-1/4" hole to TD @ approx 1530' KB with low solids non-dispersed mud system. Will set 4-1/2" 10.5 ppf or greater J55 production casing from TD to surface. Will cement with ±57 sx 'B' (117 cuft) lead slurry followed by ±59 sx 'B' (70 cuft) cement to fill from total depth to surface. Top of Cement should circulate to surface (will adjust volumes based upon caliper log).

A water spacer will be pumped ahead of the lead slurry to prevent mud contamination of the cement. If cement does not reach surface, a temperature log or cement bond log will be run to determine top of cement.

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

The access road and pipeline are adjacent to the well pad. The access road is shown on the attached topographic locator map, and the pipeline runs along the access road. The well pad will be the only surface disturbance.

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

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

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 August 11, 2003

(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:

TITLE

DATE

NMOC

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

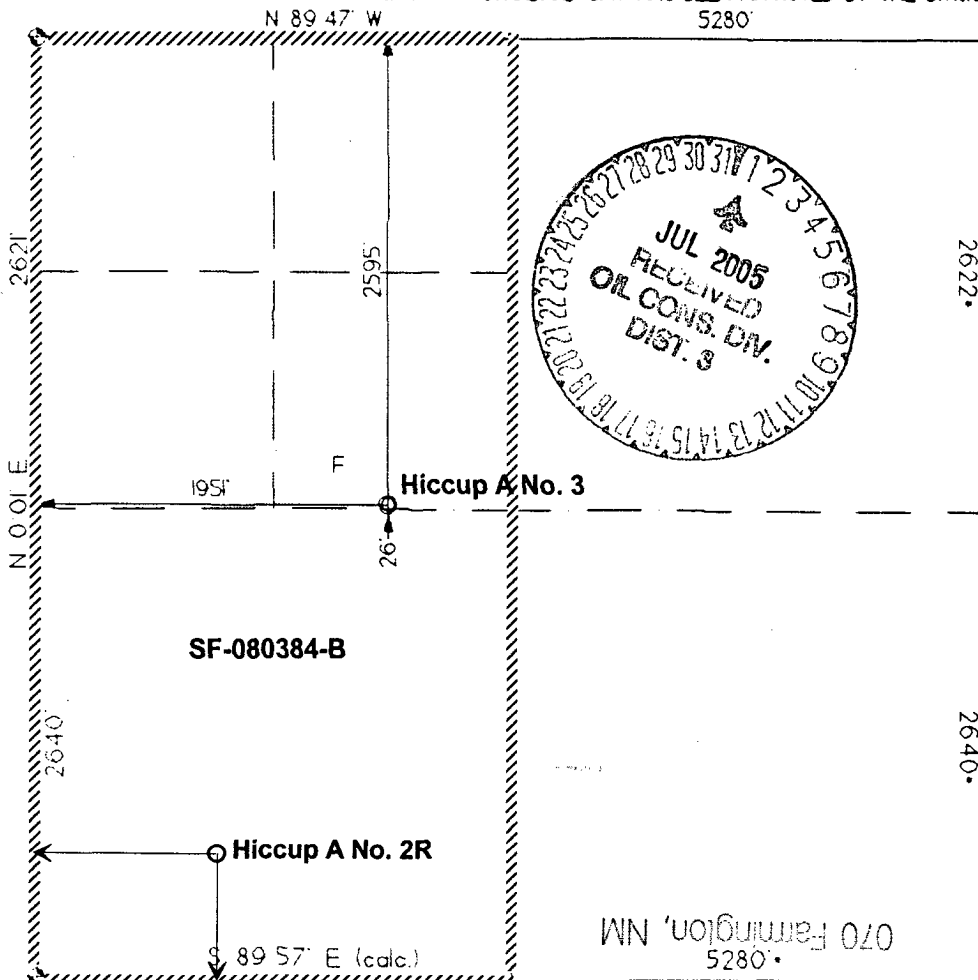
APA Number 30-045-31844	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 26703	Property Name HICCUP	Well Number A3
ORD No. 014634	Operator Name MERRION OIL & GAS	Elevation 6075'

UL or Lot	Sec	Twp	Rge	Lot Ltr	Feet from	North/South	Feet from	East/West	County
F	3	26 N.	12 W.	SE NW	2595'	NORTH	1951'	WEST	SAN JUAN

UL or Lot	Sec	Twp	Rge	Lot Ltr	Feet from	North/South	Feet from	East/West	County

Dedication 318.9	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



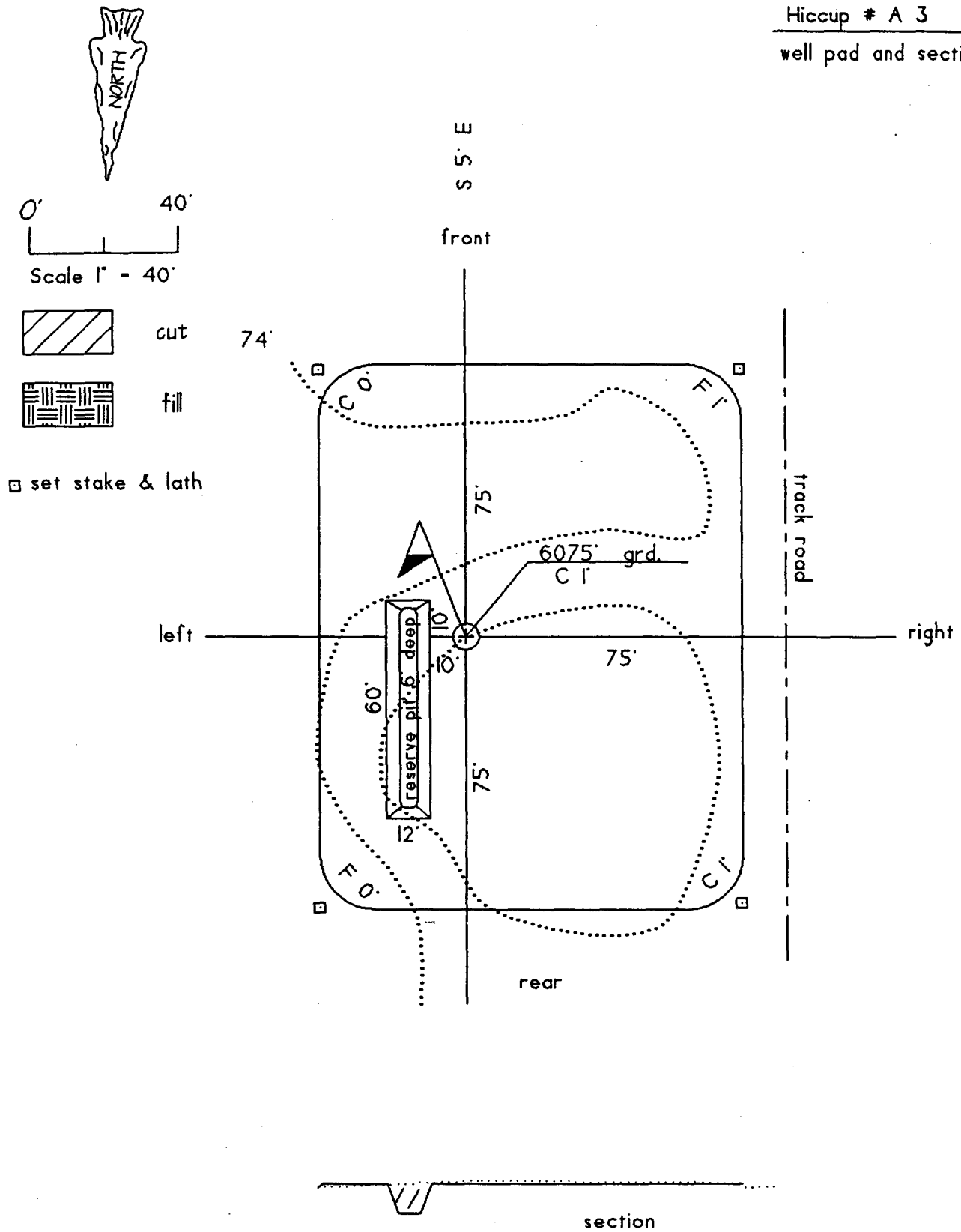
OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>[Signature]</i>	
Printed Name	Connie S. Dinning
Title	Production Engineer
Date	June 11, 2003
SURVEYOR CERTIFICATION I hereby certify that the well location 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:	
Signature and Seal of Registered Professional Surveyor	

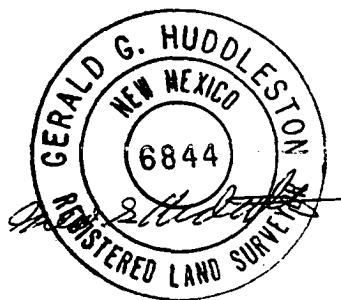
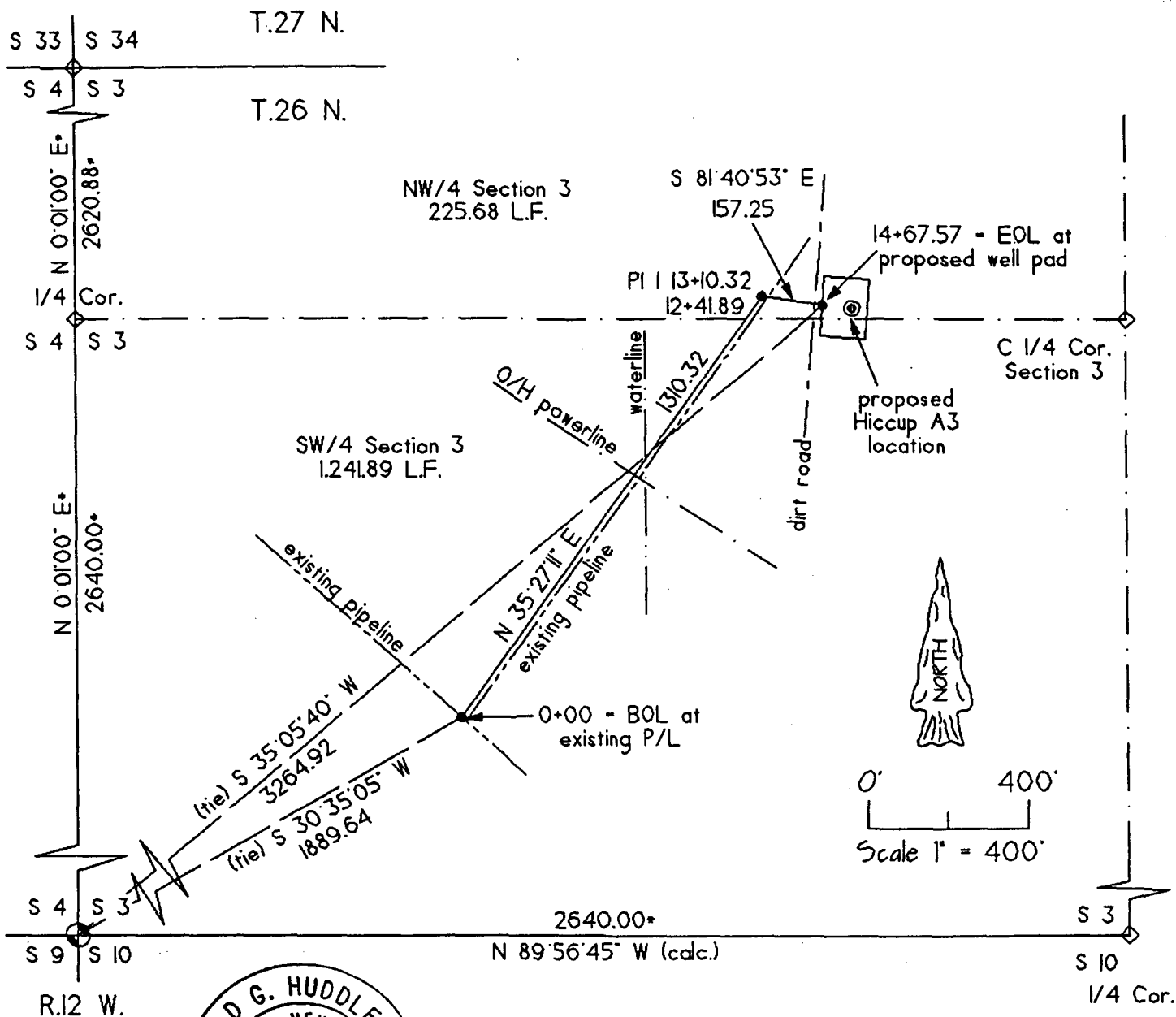
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Hiccup # A 3

well pad and section





Basis of Bearing:
GPS state plane coordinates
rotated.

- ⊕ fnd. std. GLO monument
- ◇ calculated corner
- from GLO plat of record
- survey centerline PI

MERRION OIL & GAS CORPORATION

Proposed Hiccup A3 pipeline right-of-way -
W/2 of Section 3,
T.26 N., R.12 W., NMPL,
San Juan County, New Mexico

May 2003

HUDDLESTON LAND SURVEYING
P.O. DRAWER KK / CORTEZ, CO 81321 / 970-565-3330

Merrion Oil & Gas Corporation

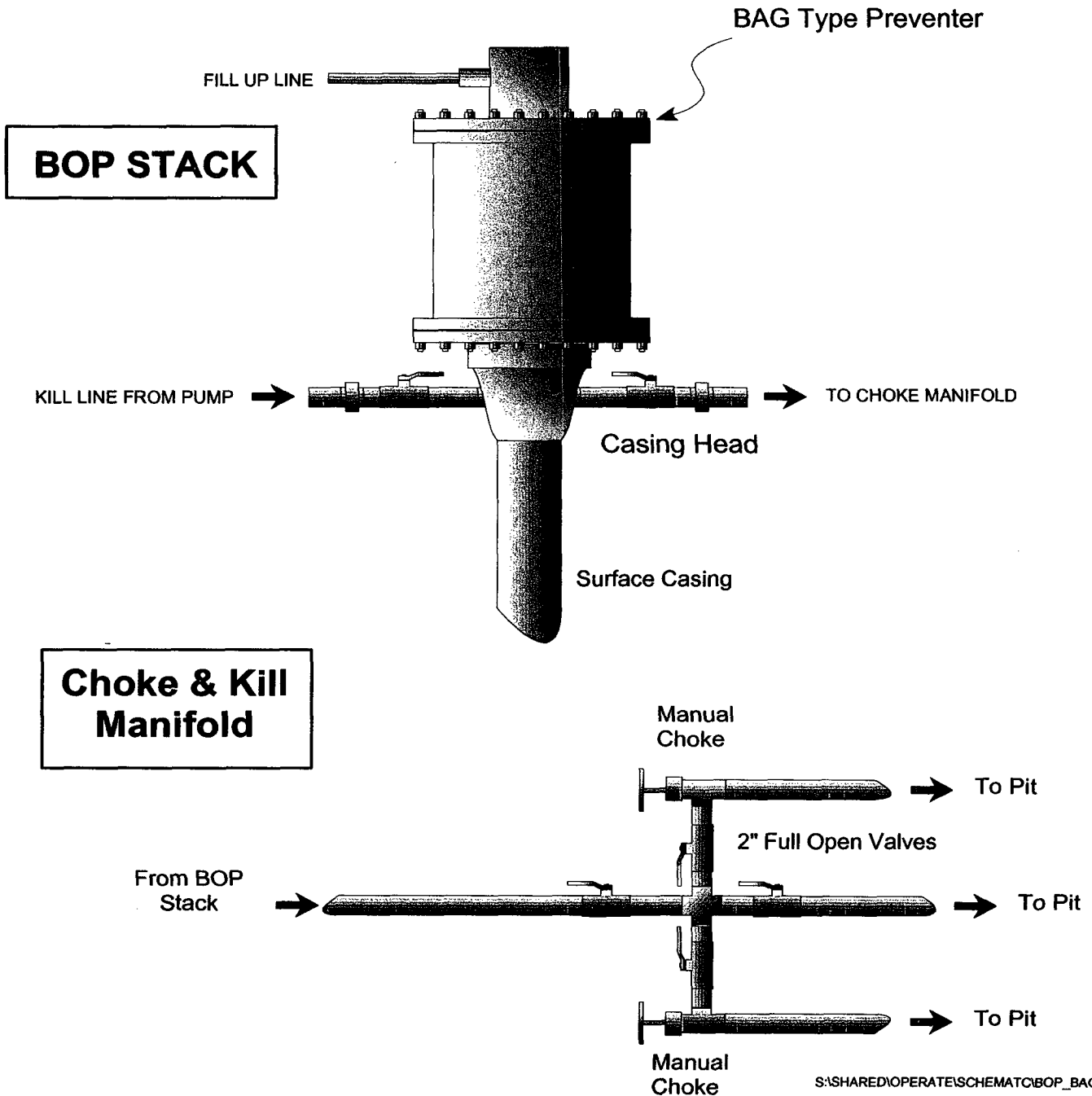
Well Control Equipment Schematic for 1M Service

Attachment to APD Form 3160-3

Hiccup A No. 3

Location: 2595' fml & 1951' fwl (se nw)
Sec 3, T26N, R12W
San Juan County, New Mexico

Date: September 18, 2003
Drawn By: Connie S. Dinning



MERRION OIL & GAS CORPORATION

DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

HICCUP A NO. 3

2595' fnl & 1951' fwl (se nw)
Section 3, T26N, R12W, NMPM
San Juan County, New Mexico

1. ESTIMATED FORMATION TOPS:

<u>FORMATION</u>	<u>DEPTH KB</u>	<u>EST PSI</u>
Undif Tertiary	Surface	
Ojo Alamo	198'	
Kirtland Shale	306'	
Fruitland	1086'	
Main Coal	1363'	354 psi
Pictured Cliffs	1376'	358 psi
Total Depth	1530'	

2. WELL CONTROL SYSTEM

- A. Proposed blowout preventer system (schematic drawings attached) is a BAG type preventer, and will be used in 1000 psi service. Merrion requests a waiver from O&G Order No. 2 requirements for 2M service.
- B. Minimum required working pressure rating for BOP stack is 1000 psi. Anticipated bottomhole pressure = 398 psi. Well Control Anticipated Surface Pressure (ASP) = $398 \text{ psi} - (0.22 * 1530') = 61 \text{ psi}$, assuming a partially gas cut column.
- C. BOP pressure testing will be conducted at time of installation and prior to drillout of surface casing shoe. BAG type preventer will be tested to 250 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 schematic drawing). Working pressure for choke manifold is greater than 1000 psi. In addition, a kill line from the mud pump will be hooked to the bradenhead as depicted in the schematic.
- D. Stabbing valves for drill pipe and drill collars will be available on the rig floor. No kelly cock valve will be installed.

3. DRILLING MUD PROGRAM

- A. A 9-3/4" surface hole will be drilled with fresh water system, lime and gel added to provide viscosity as needed.
- B. A 6-1/4" hole will be drilled to total depth utilizing a native 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.

Lost circulation materials will not be stored on location.

Mud weighting materials will not 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 - 120'	Native	< 9.0	35-55	NA
120' - 1530'±	Native	8.6-9.0	28-45	NA

Maximum anticipated mud weight is 9.0 lb./gal (0.47 psi/ft).

- C. Mud trip monitoring will be done visually.

4. **HAZARDS**

- A. Abnormal Pressure is not expected to be a problem in this area.
- B. Lost circulation is not expected to be a major problem in this area.
- C. No H₂S is expected. However, should H₂S 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 on the vertical well.

5. **LOGGING AND TESTING**

- A. An Induction, Density Log will be run from TD to surface.
- B. Drill stem tests will not be run.
- C. No coring is anticipated.
- D. No mud logging unit will be used during drilling.

6. **CASING PROGRAM**

- A.

	<u>Description</u>	<u>Top</u>	<u>Bottom</u>
1	7" 20# J55 or >	Surface	120' ft ±
2	4-1/2" 10.5# J55 or >	Surface	1530' ft ±

- B. A wellbore schematic is attached.