

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

August 11, 1994

Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87499-4289

Attention: Peggy Bradfield

RECEIVED
AUG 12 1994

OIL CON. DIV.
DIST. 3

Administrative Order NSL-3417

Dear Ms. Bradfield:

Reference is made to your application dated July 8, 1994, for a non-standard gas well location for C.M. Morris Well No. 100 to be drilled 1340 feet from the North line and 1405 feet from the East line (Unit G) of Section 10, Township 27 North, Range 10 West, NMPM, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico. The NE/4 of said Section 10 shall be dedicated to the well forming a standard 160-acre gas spacing and proration unit.

By the authority granted me under the provisions of General Rule 104.F(1) the above-described unorthodox gas well location is hereby approved.

Sincerely,

William J. LeMay
Director

WJL/MES/amg

cc: Oil Conservation Division - Aztec
US Bureau of Land Management - Farmington

Ernie Busch

From: Ernie Busch
To: Mike Stogner
Subject: MERIDIAN OIL INC (NSL)
Date: Tuesday, July 12, 1994 1:38PM

WELL NAME: C.M. MORRIS #100
LOCATION: G-10-27N-10W
FOOTAGE: 1340' FNL; 1405' FEL
RECOMMEND: APPROVAL

MERIDIAN OIL

July 8, 1994

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

RECEIVED
JUL 12 1994

OIL CON. DIV.
DIST. 3

Re: Meridian Oil Inc. C. M. Morris #100
1340'FNL, 1405'FEL, Section 10, T-27-N, R10-W - San Juan County, New Mexico
API # 30-045-(not yet assigned)

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the Fulcher Kutz Pictured Cliffs formation. This application for the referenced location is due to terrain as shown on the topographic map and the presence of pipelines, roads and wells.

This well is planned as a Basin Fruitland Coal/Fulcher Kutz Pictured Cliffs well, and application has been made to the New Mexico Oil Conservation Division to commingle this well. The location is within the orthodox boundaries of the Fruitland Coal formation.

The following attachments are for your review:

1. Application for Permit to Drill.
2. Completed C-102 at referenced location.
3. Offset operators/owners plat
4. 7.5 minute topographic map showing the orthodox windows for the north/east quarter dedication for the Pictured Cliffs; and enlargement of the map to define topographic features.

A copy of this application is being submitted to all offset owners/ operators by certified mail with a request that they furnish you with a Waiver of Objection, and return one copy to this office.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Representative
encs.

WAIVER

_____ hereby waives objection to Meridian Oil Inc.'s application for a non-standard location for their C. M. Morris #100 as proposed above.

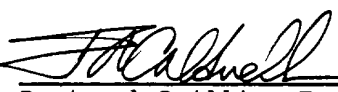
By: _____ Date: _____

xc: Amoco Production
Breck Operating Corporation

Meridian Oil Inc., 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	RECEIVED JUL 12 1994	5. Lease Number SF-077329
1b. Type of Well GAS		6. If Indian, All. or Tribe
2. Operator MERIDIAN OIL OIL CON. DIV. DIST. 3	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Morris, C.M. 9. Well Number 100	
4. Location of Well 1340'FNL, 1405'FEL Latitude 36° 35' 34", Longitude 107° 52' 41"	10. Field, Pool, Wildcat Basin Ft Coal/ Fulcher Kutz PC 11. Sec., Twn, Rge, Mer. Sec 10, T-27-N, R-10-W NMPM	
14. Distance in Miles from Nearest Town 7 miles to Bloomfield, NM	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1340'		
16. Acres in Lease	17. Acres Assigned to Well E/2 320; NE/4 160	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 200'		
19. Proposed Depth 2350'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6240'GR	22. Approx. Date Work will Start 4th quarter 1993	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by:  Regional Drilling Engineer	Date <u>10/21/93</u>	

PERMIT NO. _____ APPROVAL DATE _____

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

Submit to Adjudicator
District Office
State Lands - 4 copies
Fee Lands - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-182
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer 80, Arama, NM 88210

DISTRICT III

1000 Rio Arriba St., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.		Lessee C.M. Morris		Well No. 100
Unit Letter G	Section 10	Township 27 North	Range 10 West	County San Juan
Actual Footage Location of Well: 1340 feet from the North line and 1405 feet from the East line				
Ground Level Elev. 6240'	Producing Formation Fruitland Coal/Pictured Cliffs	Foot Basin/Fulcher Kutz	Dedicated Acreage 320/160 Acres	
<p>1. Outline the acreage dedicated to the subject well by corner points or section marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the consent of all owners been established by communication, unification, force-pooling, etc.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of communication _____</p> <p>If answer is "no" list the owners and their descriptions which have actually been communicated. (Use reverse side of this form if necessary.) _____</p> <p>No allowance will be assigned to the well until all interests have been communicated (by communication, unification, force-pooling, or otherwise) or until a non-allocated unit, encompassing such interest, has been approved by the Division.</p>				

5285.28

RECEIVED
JUL 12 1994
OIL CON. DIV.
DIST. 3

1340

1405

SF-077329

1

5280.00

SF-079596

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Peggy Bradfield
Signature

Peggy Bradfield

Printed Name

Regulatory Representative

Position

Meridian Oil Inc.

Company

10-14-93

Date

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 knowledge and belief.

10-2-92

Date Surveyed C. EDWARDS

Neale A. Edwards

Signature of State Professional Surveyor

9857

Continued on

OPERATIONS PLAN

Well Name: C. M. Morris #100
Location: 1340'FNL, 1405'FEL Section 10, T-27-N, R-10-W
 San Juan County, New Mexico
 Latitude 36° 35' 34", Longitude 107° 52' 41"
Formation: Basin Fruitland Coal/Fulcher Kutz Pictured Cliffs
Elevation: 6240'GL

Formation:	Top	Bottom	Contents
Surface	San Jose	1174'	
Ojo Alamo	1174'	1299'	aquifer
Kirtland	1299'	1716'	
Fruitland	1716'	2144'	
Fruitland Coal Top	1992'	2140'	gas
Pictured Cliffs	2144'		gas
Total Depth	2350'		

Logging Program: Mud logs from 1650' to Total Depth
 DIL-GR-SP - surface to Total Depth
 GL-GR-SP-CAL/Dens-Neut-GR-CAL - 1650' to Total Depth

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-8.9	40-50	no control
200-2350'	Non-dispersed	8.4-9.5	30-60	no control

Casing Program:

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0 - 200'	8 5/8"	24.0#	K-40
7 7/8"	0 - 2350'	4 1/2"	10.5#	K-55

Tubing Program:

0 - 2350'	2 3/8"	4.7#	J-55
-----------	--------	------	------

Float Equipment: 8 5/8" surface casing - saw tooth guide shoe.
 Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Four centralizers run every 3rd joint to the base of the Ojo Alamo @ 1299'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1299'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 8 5/8" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

C. M. Morris #100

Cementing:

8 5/8" surface casing - cement with 210 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (247 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

4 1/2" production casing - lead w/540 sx of Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, and 1/4# flocele/sx (956 cu.ft.). Tail w/100 sx Class "B" w/2% calcium chloride (118 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

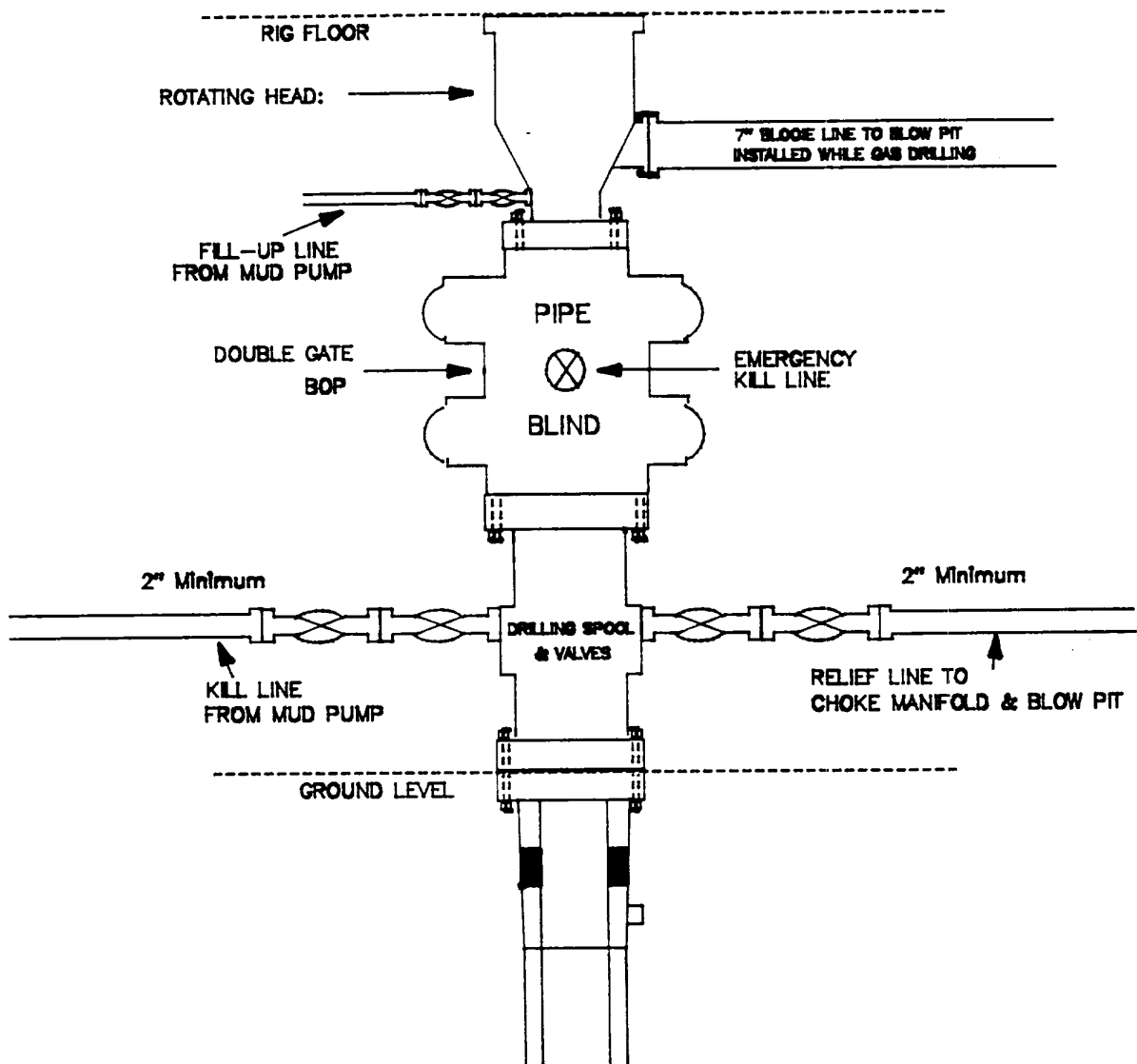
Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional information:

- * The Fruitland Coal and Pictured Cliffs formations will be completed and commingled per New Mexico Oil Conservation Division order.
- * Anticipated pore pressure for the Fruitland is 1130 psi and for the Pictured Cliffs is 1130 psi.
- * This gas is dedicated.
- * The east half of Section 10 is dedicated to the Fruitland Coal and the northeast quarter of the section is dedicated to the Pictured Cliffs.
- * New casing will be utilized.
- * Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

MERIDIAN OIL INC.

BOP Configuration 2M psi SYSTEM

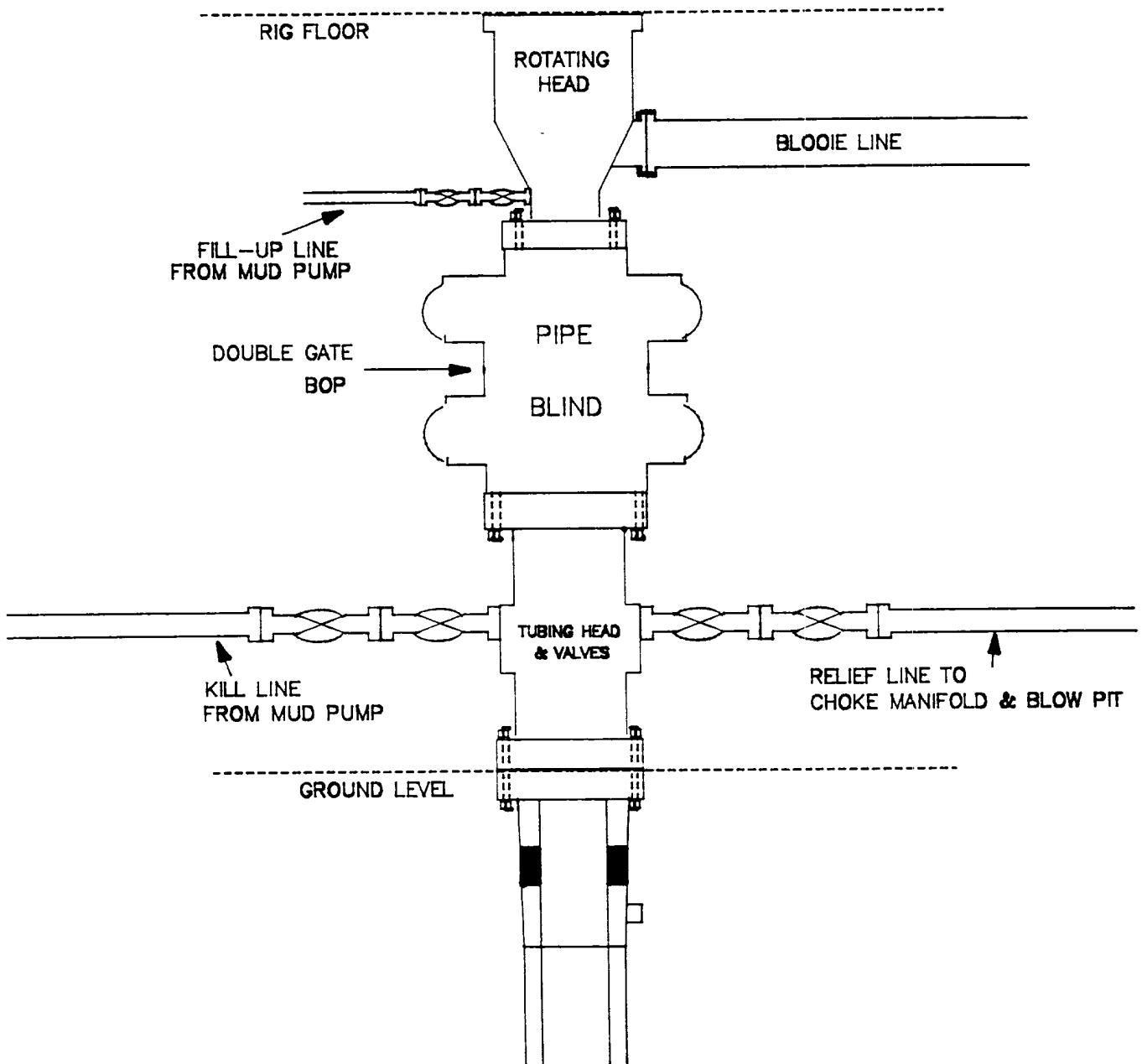


11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

MERIDIAN OIL INC.

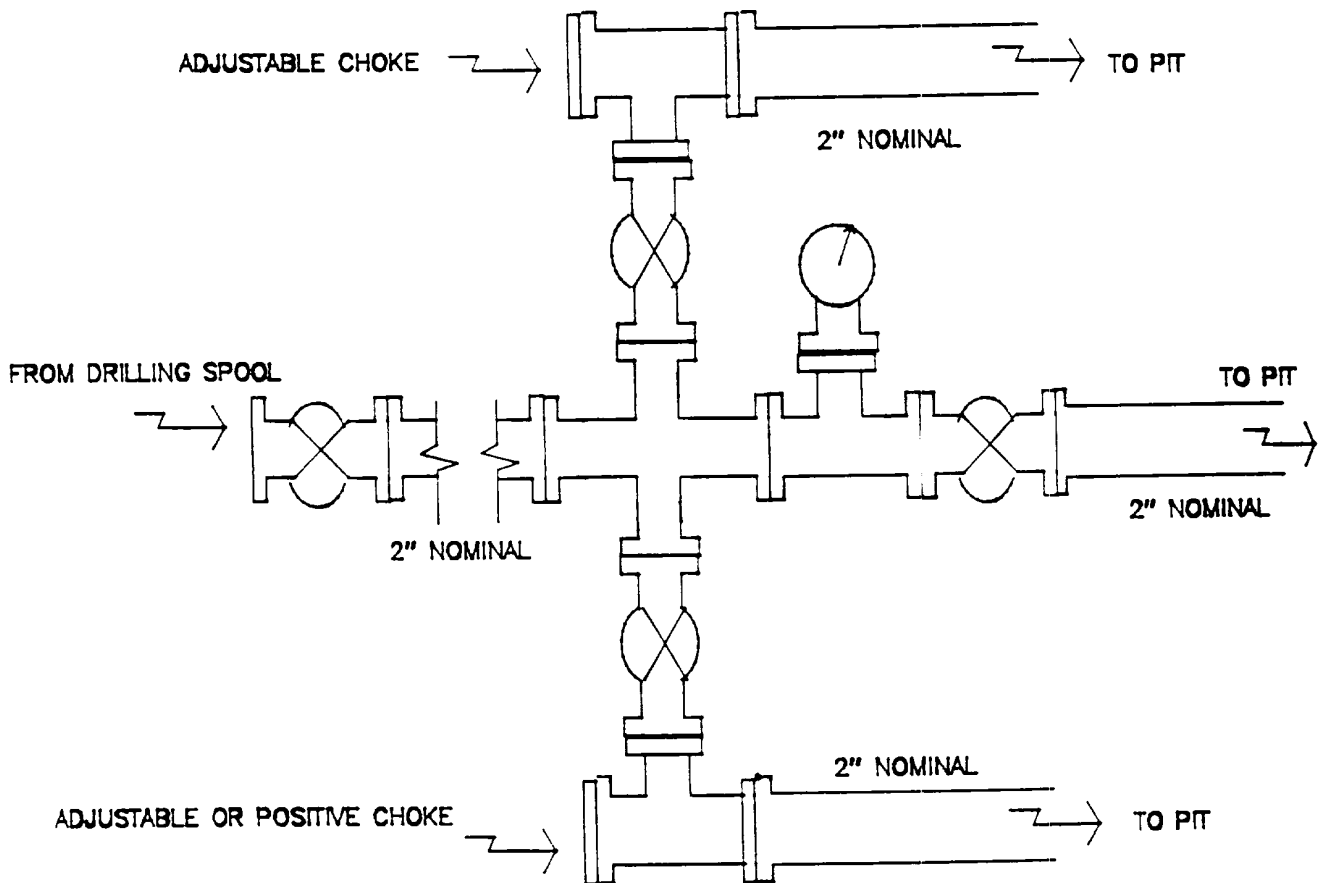
BOP Configuration 2M psi SYSTEM



Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

Figure #2

MERIDIAN OIL INC.
Choke Manifold Configuration
2M psi SYSTEM



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

MERIDIAN OIL

C. M. Morris #100

Multi-Point Surface Use Plan

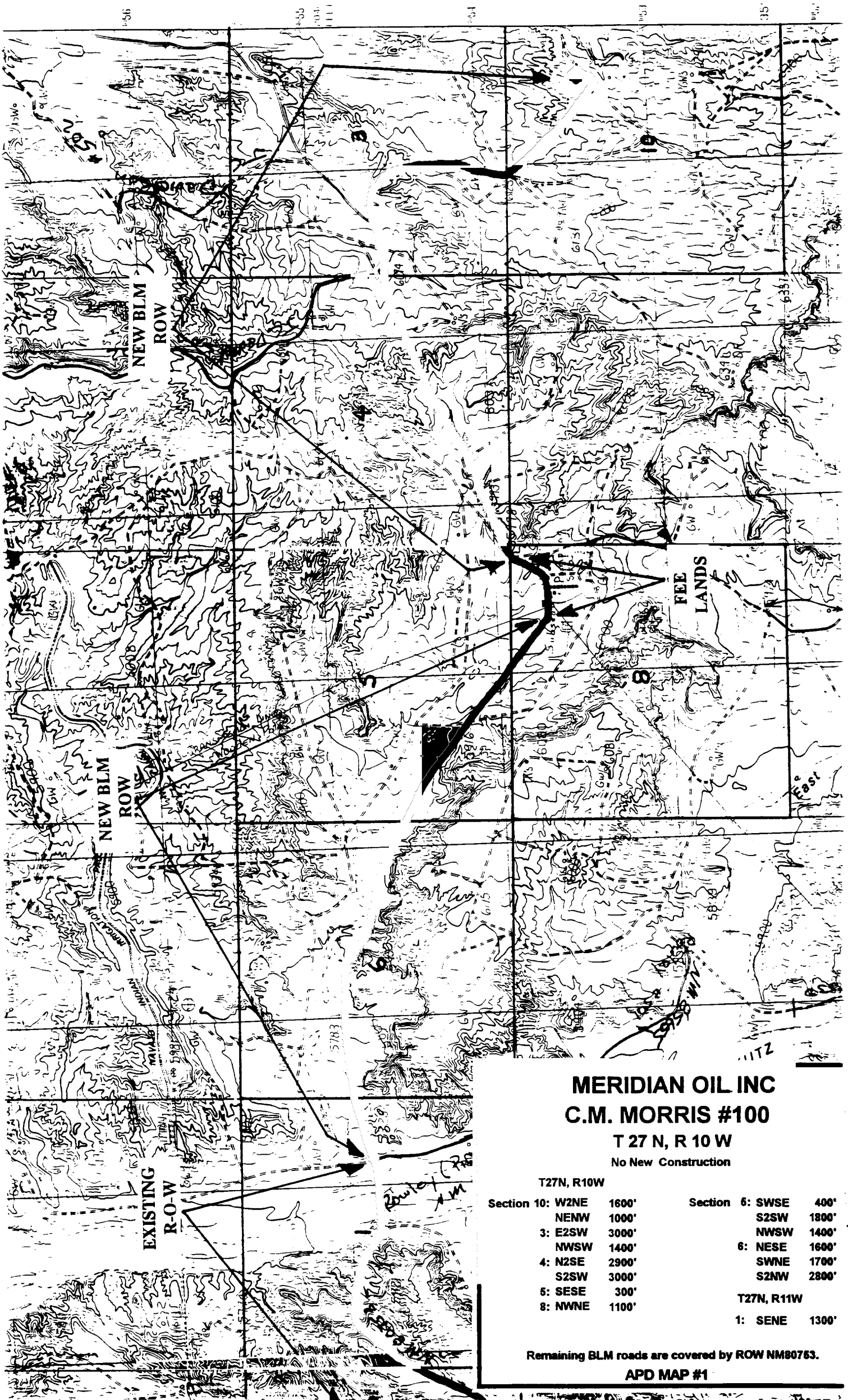
1. **Existing Roads** - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. **Planned Access Road** - Refer to Map No. 1. None required.
3. **Location of Existing Wells** - Refer to Map No. 1A.
4. **Location of Existing and/or Proposed Facilities if Well is Productive** -
 - a. **On the Well Pad** - Refer to Plat No. 1, anticipated production facilities plat.
 - b. **Off the Well Pad** - Anticipated facilities off the well pad will be applied for as required.
5. **Location and Type of Water Supply** - Water will be hauled by truck for the proposed project and will be obtained from Rowley #7 bradenhead located in SW/4 Section 7, T-27-N, R-10-W, New Mexico.
6. **Source of Construction Materials** - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
7. **Methods of Handling Waste Materials** - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. All reserve pits will be lined with 12 mil bio-degradable plastic liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
8. **Ancillary Facilities** - None anticipated.
9. **Wellsite Layout** - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.
11. Surface Ownership - Bureau of Land Management.
12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
13. Operator's Representative and Certification - Meridian Oil Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.


Regional Drilling Engineer

10-21-93
Date

JWC:pb



MERIDIAN OIL INC
C.M. MORRIS #100

T 27 N, R 10 W

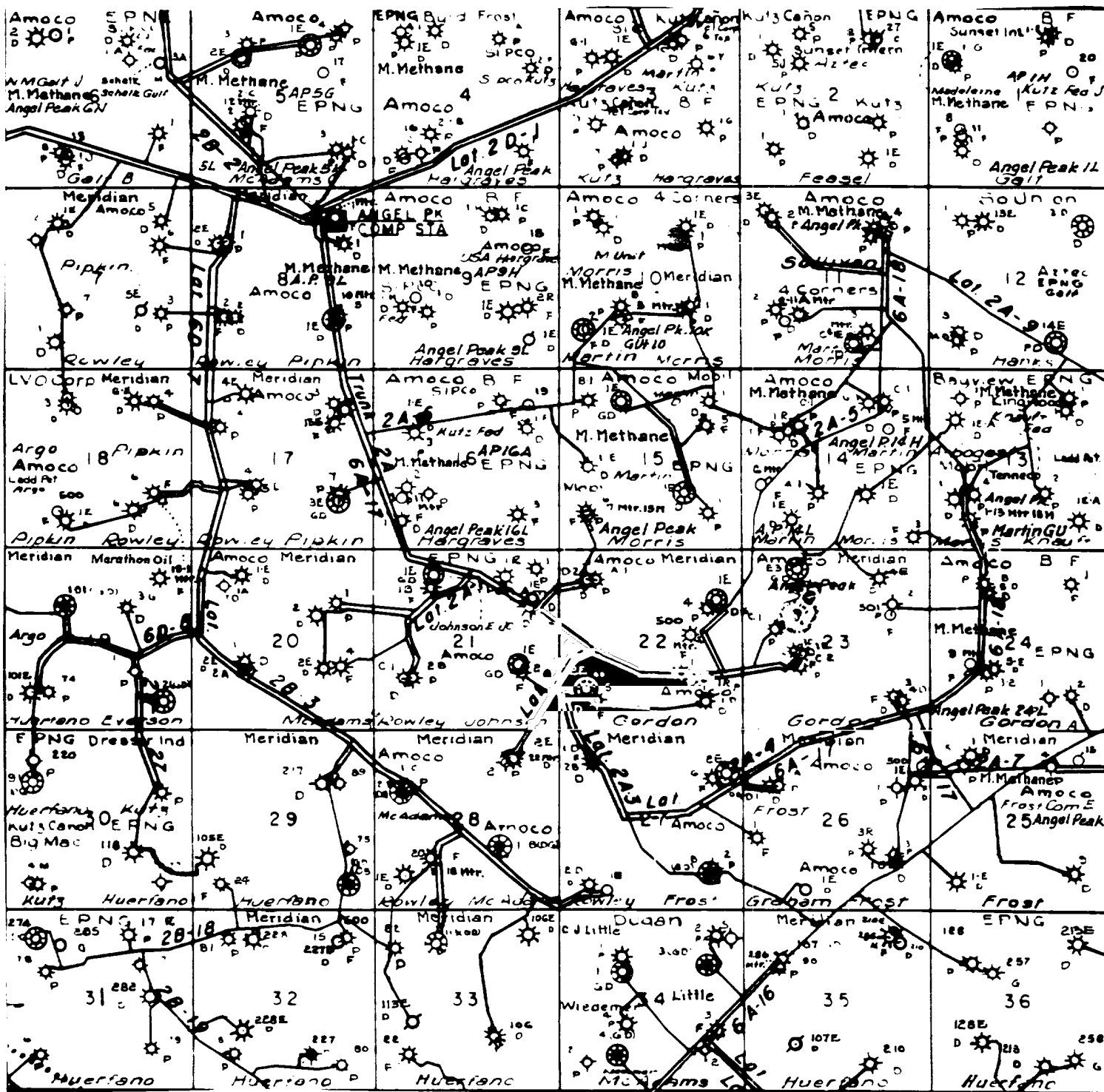
No New Construction

T27N, R10W

Section 10:	W2NE	1600'	Section 6:	SWSE	400'
	NENW	1000'		S2SW	1800'
3:	E2SW	3000'	6:	NWSW	1400'
	NWSW	1400'		NESE	1600'
4:	N2SE	2900'		SWNE	1700'
	S2SW	3000'		S2NW	2800'
5:	SESE	300'	T27N, R11W		
8:	NWNE	1100'	1:	SENE	1300'

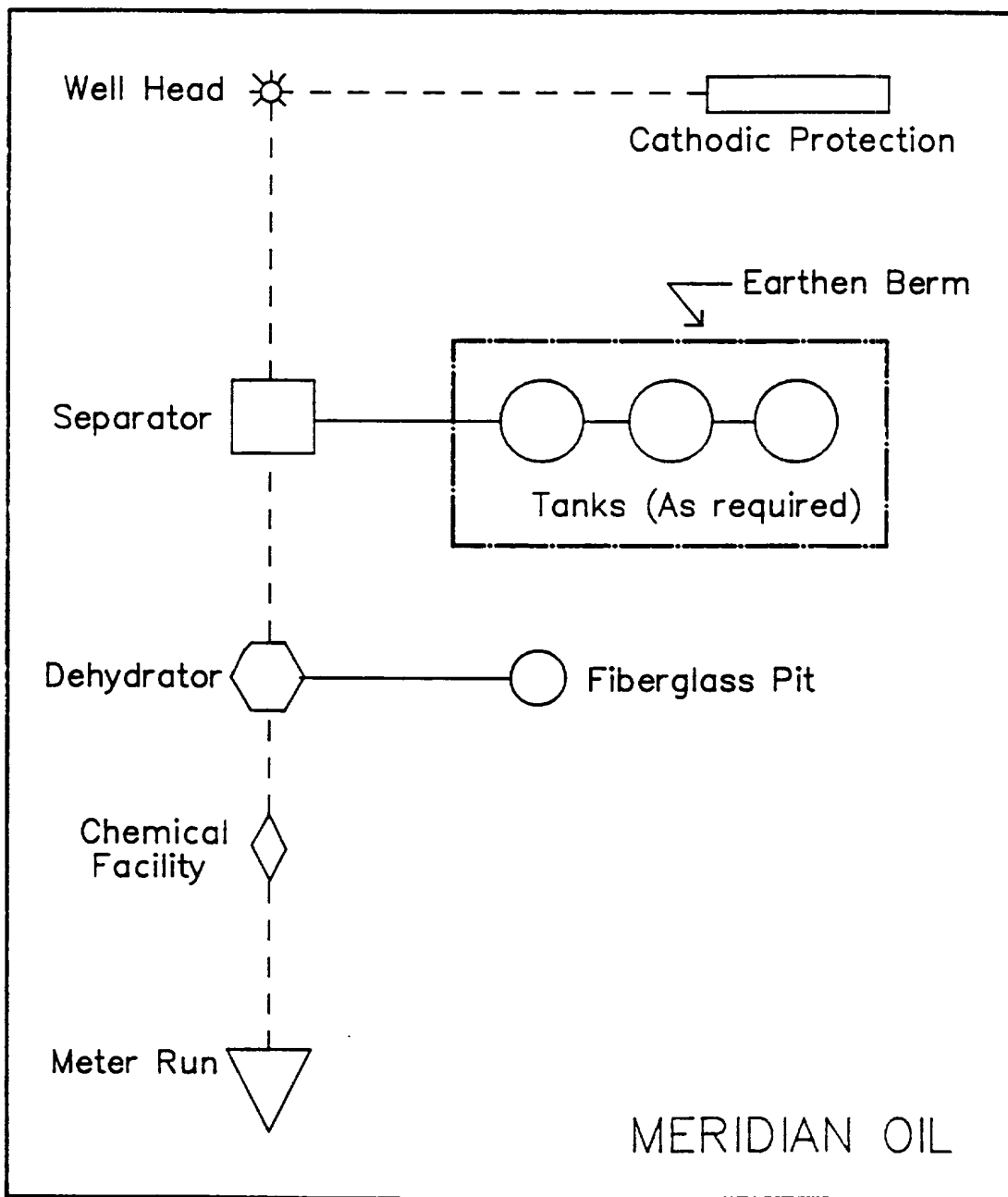
Remaining BLM roads are covered by ROW NM80763.

APD MAP #1



MERIDIAN OIL INC.
 Pipeline Map
 T-27-N, R-10-W
 San Juan County, New Mexico
 C. M. Morris #100
 Map #1A

Well Pad Boundary



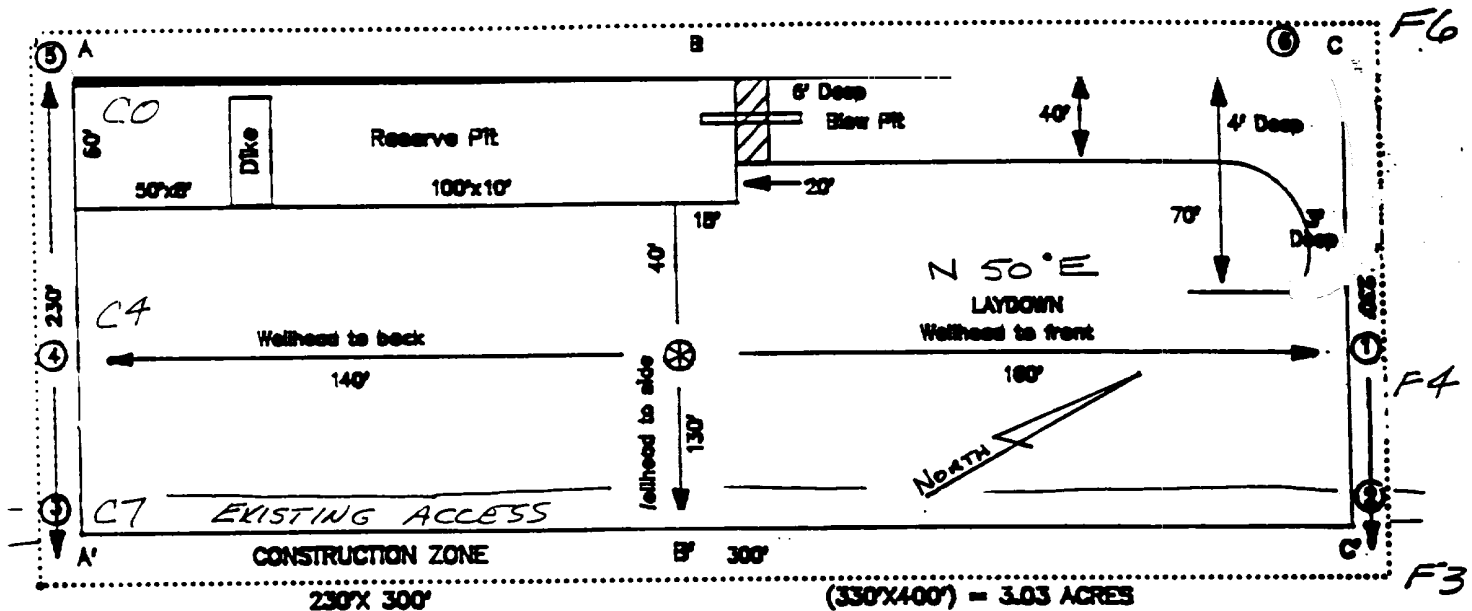
ANTICIPATED
PRODUCTION FACILITIES
FOR A
FRUITLAND COAL/PICTURED CLIFFS COMMINGLED WELL

MERIDIAN OIL

PLAT #1

PC/FC LOW POTENTIAL

NAME:	MOI C.M. MORRIS # 100		
FOOTAGE:	1340 FNL 1405 FEL		
SEC:	10	TWN:	27 N.R. 10 W NMPM
CO:	SAN JUAN	ST:	N.M.
ELEVATION:	6240	DATE:	10/2/93

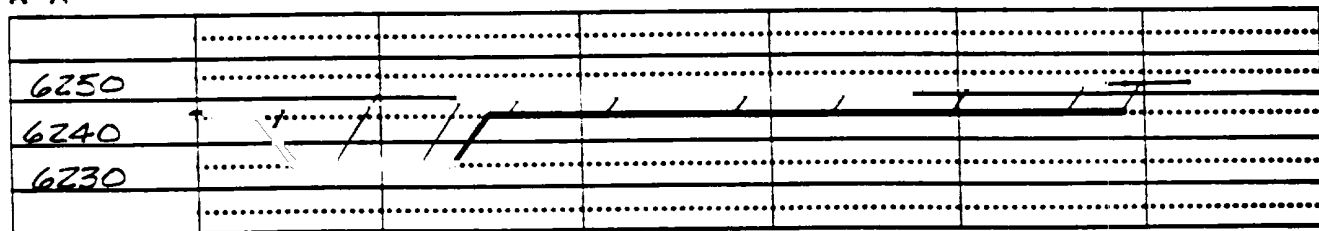


Reserve Pit Dike : to be 6' above Deep side { overflow - 3' wide and 1' above shallow side. }

Blow Pit : overflow pipe halfway between top and bottom and extend over plastic liner and into blow pit.

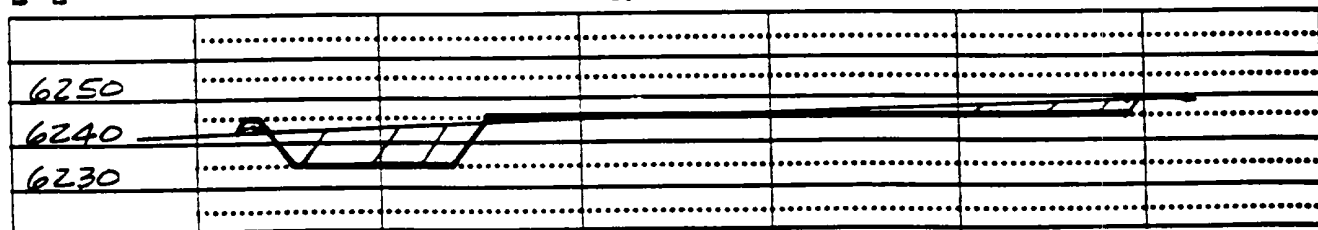
A-A'

C/L



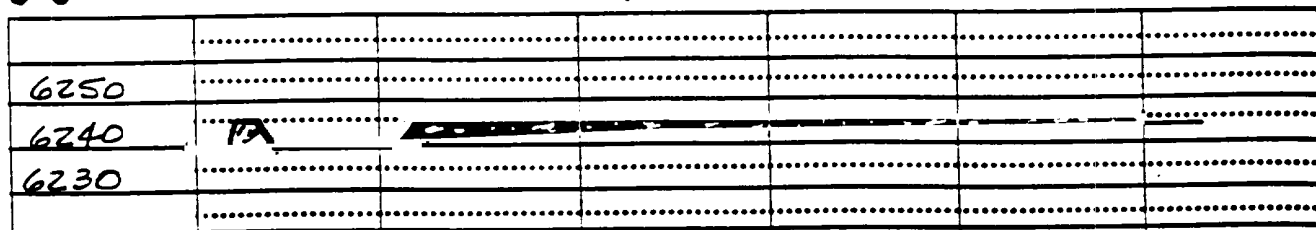
B-B'

C/L



C-C'

C/L

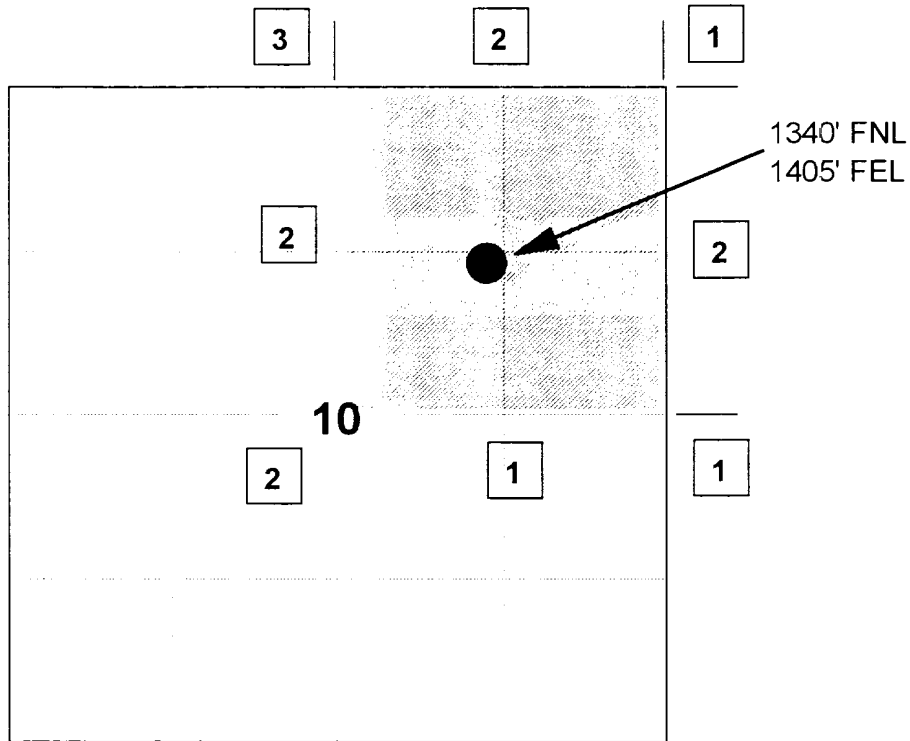


MERIDIAN OIL INC

C. M. MORRIS #100 OFFSET OPERATOR PLAT

Unorthodox Pictured Cliffs Location

Township 27 North, Range 10 West



1) Meridian Oil Inc

2) Amoco Production Company

PO Box 800, Denver, CO 80201

3) Breck Operating Corporation

PO Box 911, Breckenridge, TX 76024

Re: Meridian Oil Inc. C. M. Morris #100
1340'FNL, 1405'FEL, Section 10, T-27-N, R10-W - San Juan County, New Mexico
API # 30-045-(not yet assigned)

I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

Amoco Production
PO Box 800
Denver, CO 80201

Breck Operating Corporation
PO Box 911
Breckenridge, TX 76024

A handwritten signature in cursive script, appearing to read "Peggy A. Bradfield".

Peggy A. Bradfield
San Juan County, State of New Mexico
My commission expires August 17, 1996

