

NSL-2PLS. 4

MERIDIAN OIL

Rec. 9/16/94

September 15, 1994

Sent Federal Express

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

Standard  
640 acre Section

Re: Meridian Oil Inc. Huerfanito Unit #78M  
1545'FSL, 1270'FEL Section 36, T-27-N, R-9-W - San Juan County, New Mexico  
API # 30-045-28971

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Blanco Mesa Verde and Basin Dakota formations. This application for the referenced location is due to terrain as shown on the topographic map, the presence of pipelines and a dwelling to the east of the location.

This well was drilled as a Blanco Mesa Verde/Basin Dakota commingle. Order R-9887 was received from the Mexico Oil Conservation Division for commingling.

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 and affidavit of notification.
4. 7.5 minute topographic map showing the orthodox windows for the east half dedication for the Mesa Verde and Dakota; 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's application for a non-standard location for their Huerfanito Unit #78M as proposed above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

xc: Snyder Oil  
Merit Energy

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number <i>0651</i> NO-G-0955-1134	
1b. Type of Well GAS	6. If Indian, All. or Tribe Navajo Tribe	
2. Operator <b>MERIDIAN OIL</b>	7. Unit Agreement Name Huerfanito Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name Huerfanito Unit 9. Well Number 78M	
4. Location of Well 1545'FSL, 1270'FEL  Latitude 36° 31' 42", Longitude 107° 44' 07"	10. Field, Pool, Wildcat Blanco Mesa Verde/ Basin Dakota 11. Sec., Twn, Rge, Mer. Sec 36, T-27-N, R-9-W NMPM	
14. Distance in Miles from Nearest Town 11 miles from Huerfano Trading Post	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1270'		
16. Acres in Lease <i>160 ac</i>	17. Acres Assigned to Well 320 E/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 600'		
19. Proposed Depth 6693'	This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3166.4.	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6161'GR		22. Approx. Date Work will Start 2nd quarter 1993
23. Proposed Casing and Cementing Program See Operations Plan attached	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"	
24. Authorized by: <i>[Signature]</i> Regional Drilling Engineer		Date <i>3/15/93</i>

RECEIVED  
BLM  
MAR 19 1993

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

DATE  
**APPROVED AS AMENDED**

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

*[Signature]* 11/2 1993  
**DISTRICT MANAGER**

OPERATOR

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesa, NM 88210

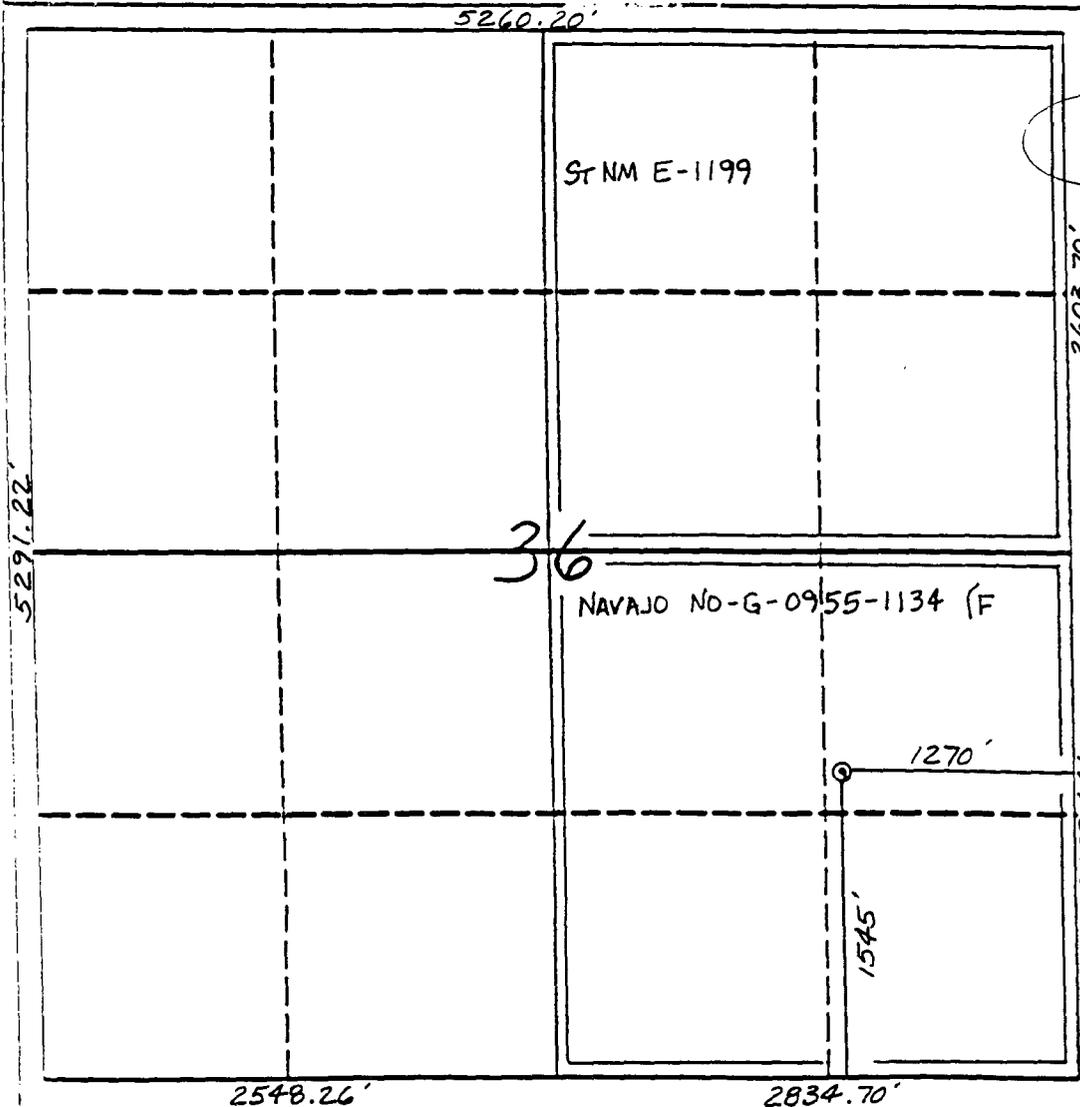
DISTRICT III  
1000 Rio Briscoe Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.		Lease Huerfanito Unit		Well No. 78M
Unit Letter I	Section 36	Township 27 North	Range 9 West	County San Juan
Actual Footage Location of Well: 1545 feet from the South line and 1270 feet from the East line				
Ground level Elev. 6161'	Producing Formation Mesa Verde/Dakota	Pool Blanco/Basin	Dedicated Acreage: 320 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hectare marks on the plat below.
  - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
  - If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
    - Yes  No If answer is "yes" type of communitization unitization
- If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)
- No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, 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.

*Peggy Bradfield*  
Signature

Peggy Bradfield  
Printed Name  
Regulatory Representative

Meridian Oil Inc.  
Position

Company

3-12-93  
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.

12-22-92  
Date Surveyed

C. EDWARDS  
Name  
Professional Surveyor



6857  
Certificate No.

OPERATIONS PLAN

Well Name: Huerfanito Unit #78M  
Location: 1545'FSL, 1270'FEL Section 36, T-27-N, R-9-W  
 San Juan County, New Mexico  
 Latitude 36° 31' 42", Longitude 107° 44' 07"  
Formation: Blanco Mesa Verde/Basin Dakota  
Elevation: 6161'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	Nacimiento	1188'	
Ojo Alamo	1188'	1319'	aquifer
Kirtland	1319'	1813'	
Fruitland	1813'	2003'	gas
Pictured Cliffs	2003'	3271'	gas
Mesa Verde	3271'	3658'	salt water
Menefee	3658'	4368'	salt water
Point Lookout	4368'	4933'	gas & oil
Mancos	4933'	5455'	
Gallup	5455'	6273'	gas & oil
Greenhorn	6273'	6331'	
Graneros	6331'	6405'	gas & oil
Dakota	6405'		gas & oil
<b>Total Depth</b>		<b>6693'</b>	

Logging Program:

Mud Logs/Coring/DST -  
 Mud logs - yes  
 Coring - none  
 DST - none  
 Electric logs - DIL/FDC-CNL

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-8.9	40-50	no control
200-6693'	LSND	8.4-9.1	30-60	no control

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

Casing Program:

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	8 5/8"	24.0#	K-55
7 7/8"	0' - 6693'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 6693'      2 3/8"      4.7#      J-55 EUE

BOP Specifications, Wellhead and Tests:

**Surface to TD -**

11" 3000 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.

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**

6" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

**Surface to Total Depth -**

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

**Wellhead -**

8 5/8" x 4 1/2" x 2 3/8" x 3000 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.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

**Cementing:**

8 5/8" surface casing -

Cement to surface w/140 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (165 cu.ft. of slurry, 100% excess to circulate to surface.) WOC 12 hours prior to drilling out surface casing. 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.

Production Casing - 4 1/2"

First Stage: Cement to circulate to stage tool @ 4518'. Lead w/494 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC 4 hours prior to pumping second stage. (Slurry volume: 992 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to stage tool @ 1469'. Lead w/719 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1390 cu.ft. Excess slurry: 100%.)

Third Stage: Cement to circulate to surface. Cement w/312 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 670 cu.ft. Excess slurry: 100%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-two centralizers - one every 4th joint to the base of the Ojo Alamo @ 1319'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1319'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

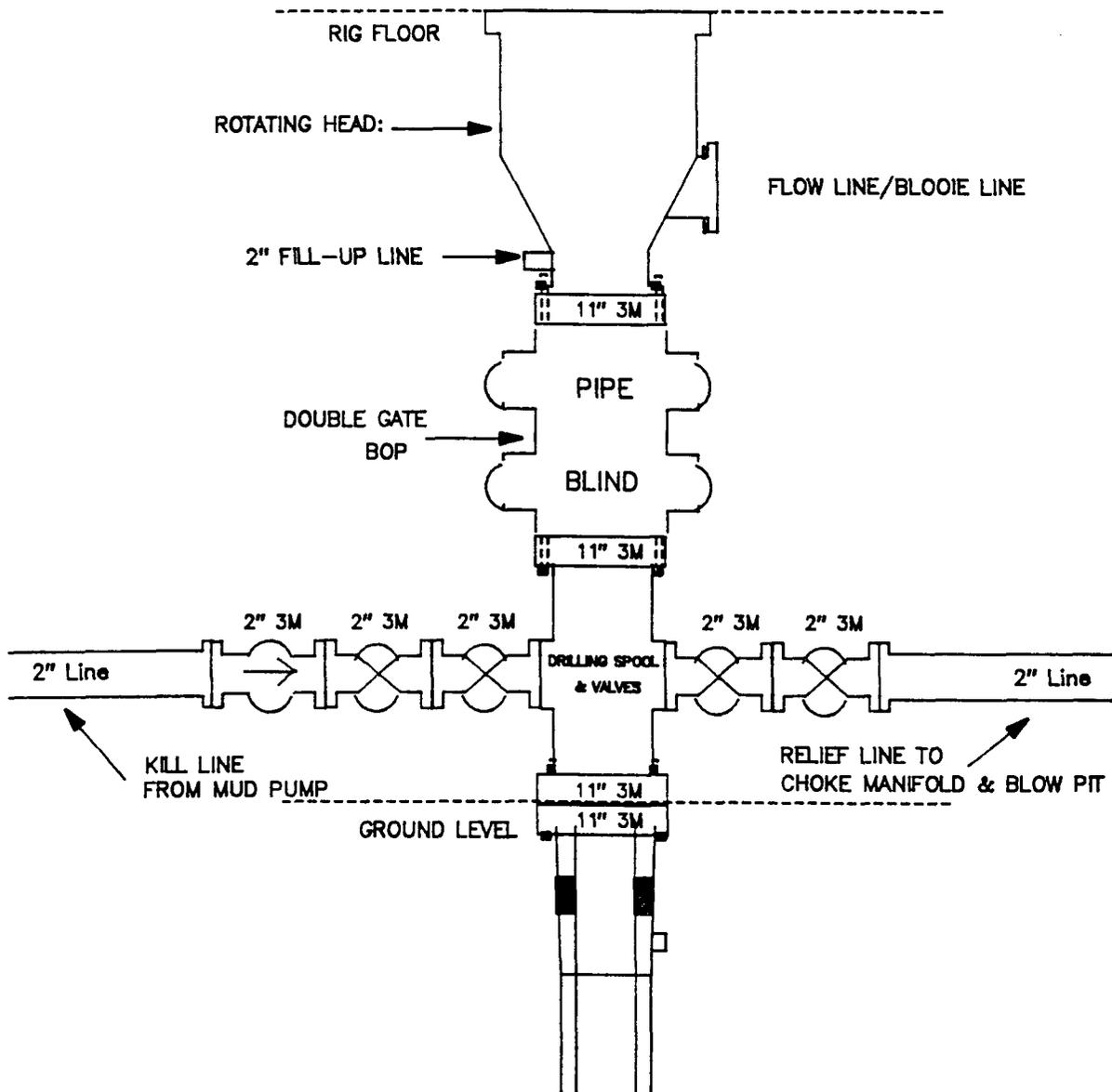
- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Additional Information:

- Mesa Verde and Dakota formations will be completed and commingled per New Mexico Oil Conservation Division Order.
- No abnormal temperatures or hazards are anticipated.
- 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 East half of Section 36 is dedicated to both the Mesa Verde and Dakota formations.
- This gas is dedicated.
- New casing will be utilized.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

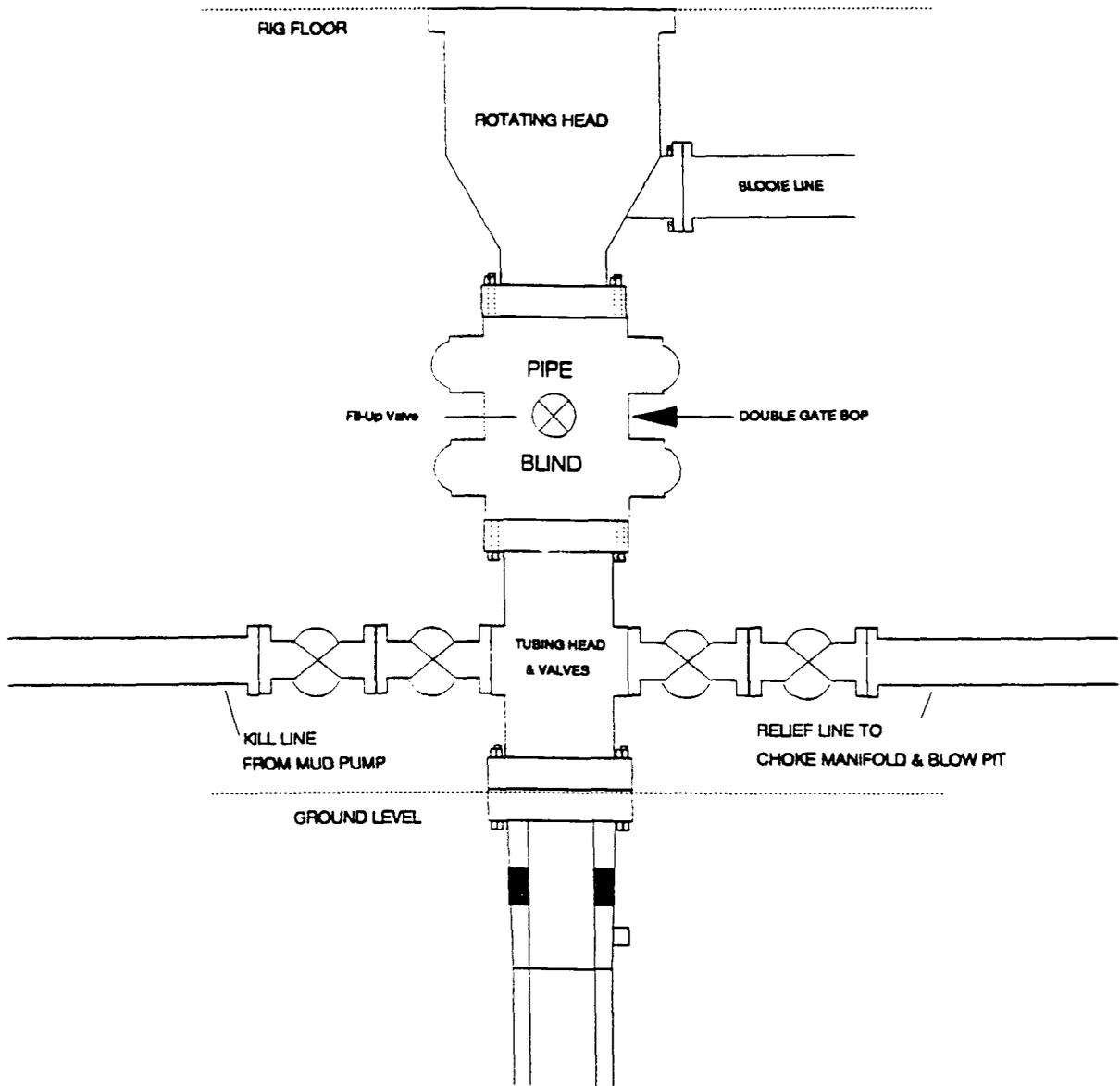
# MERIDIAN OIL INC.

## Drilling Rig 3000 psi System



11" Bore (10" Nominal), 3000psi working pressure minimum double gate BOP to be equipped with blind and pipe rams. A rotating head on the top of the rams. All BOP equipment is 3000psi working pressure.

**MERIDIAN OIL INC.**  
Dakota Well - Completion Rig  
BOP Configuration

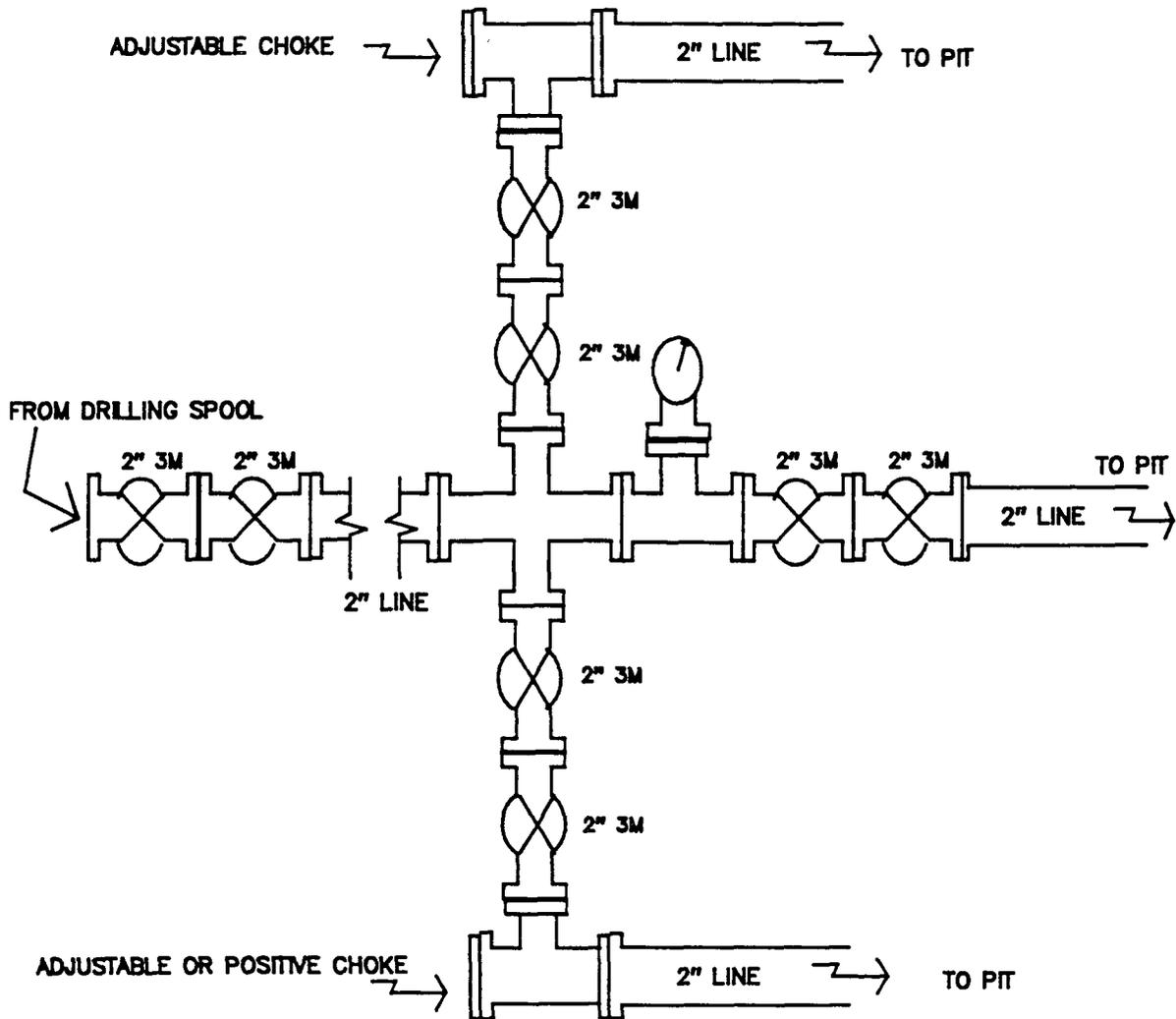


Minimum BOP installation for Completion Operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

**Figure #2**

# MERIDIAN OIL INC.

## Drilling Rig Choke Manifold Configuration 3000 psi System



3000psi working pressure equipment with two chokes.

**MERIDIAN OIL**  
Huerfanito Unit #78M  
Multi-Point Surface Use Plan

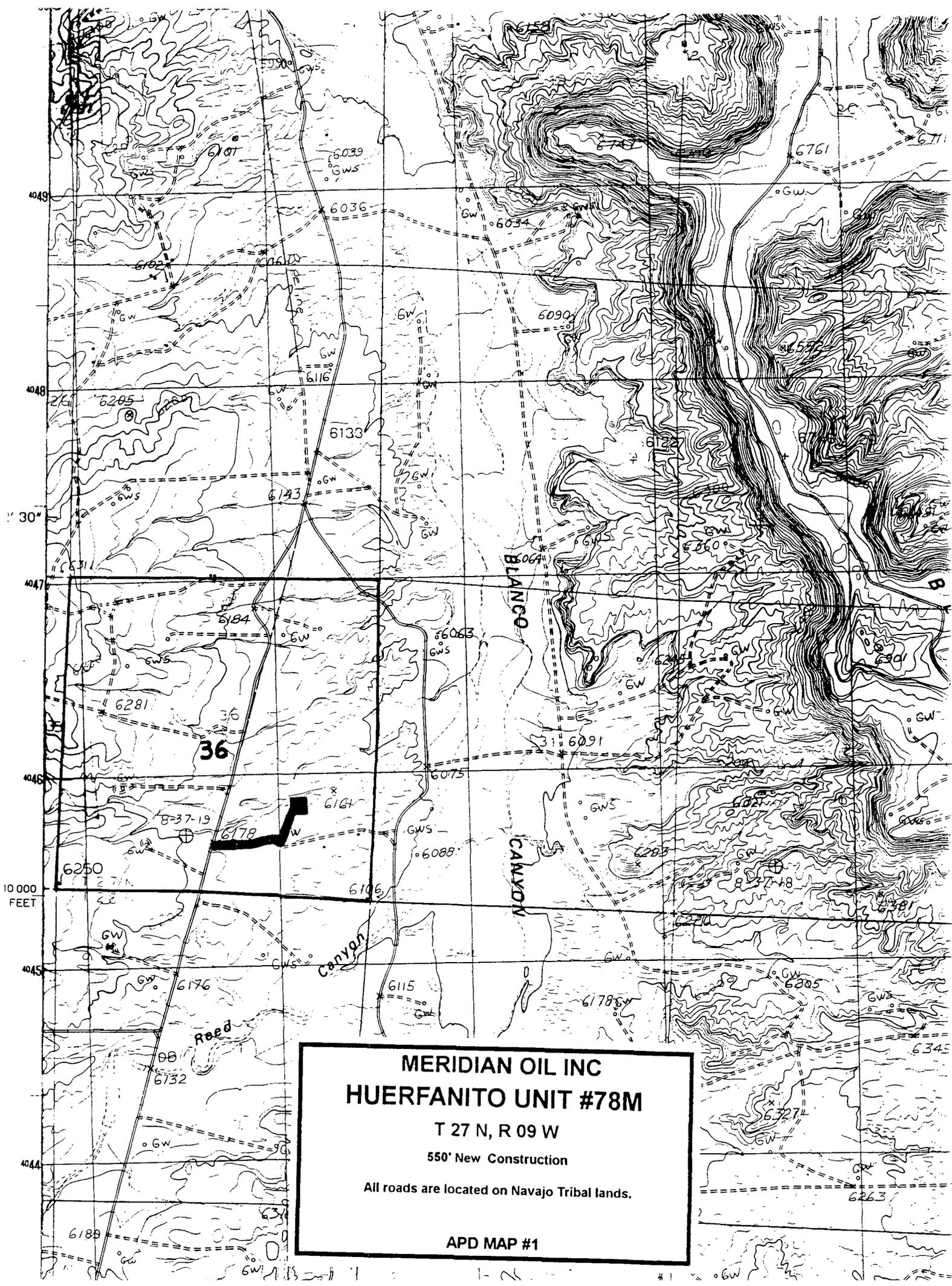
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 550' of access road will be constructed. Pipelines are indicated on Map No. 1A.
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 Kah-Des-Pah Water Hole located in SW/4 Section 18, T-26-N, R-8-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 - State of New Mexico.
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.

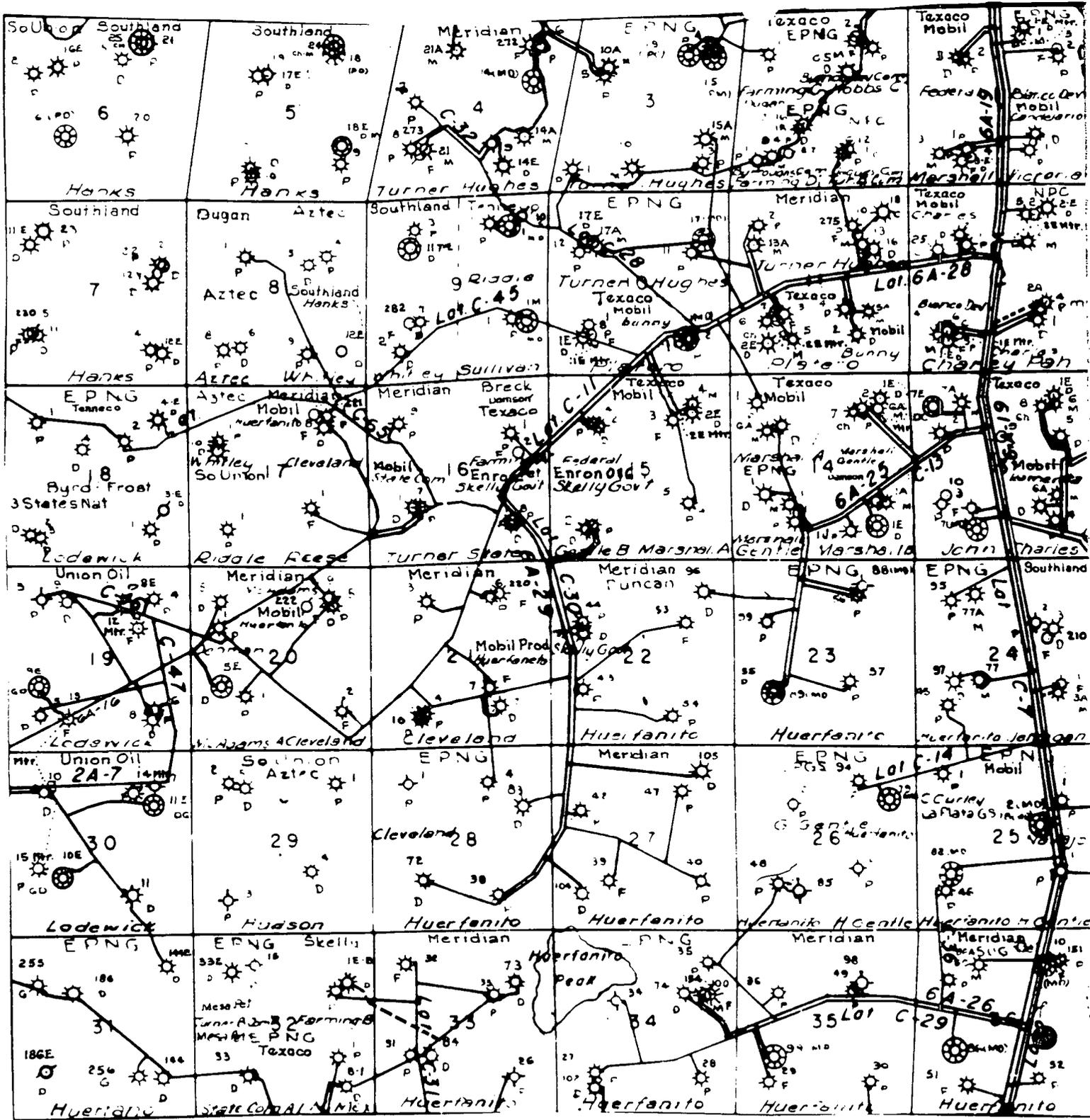
  
Regional Drilling Engineer

3/15/93  
Date

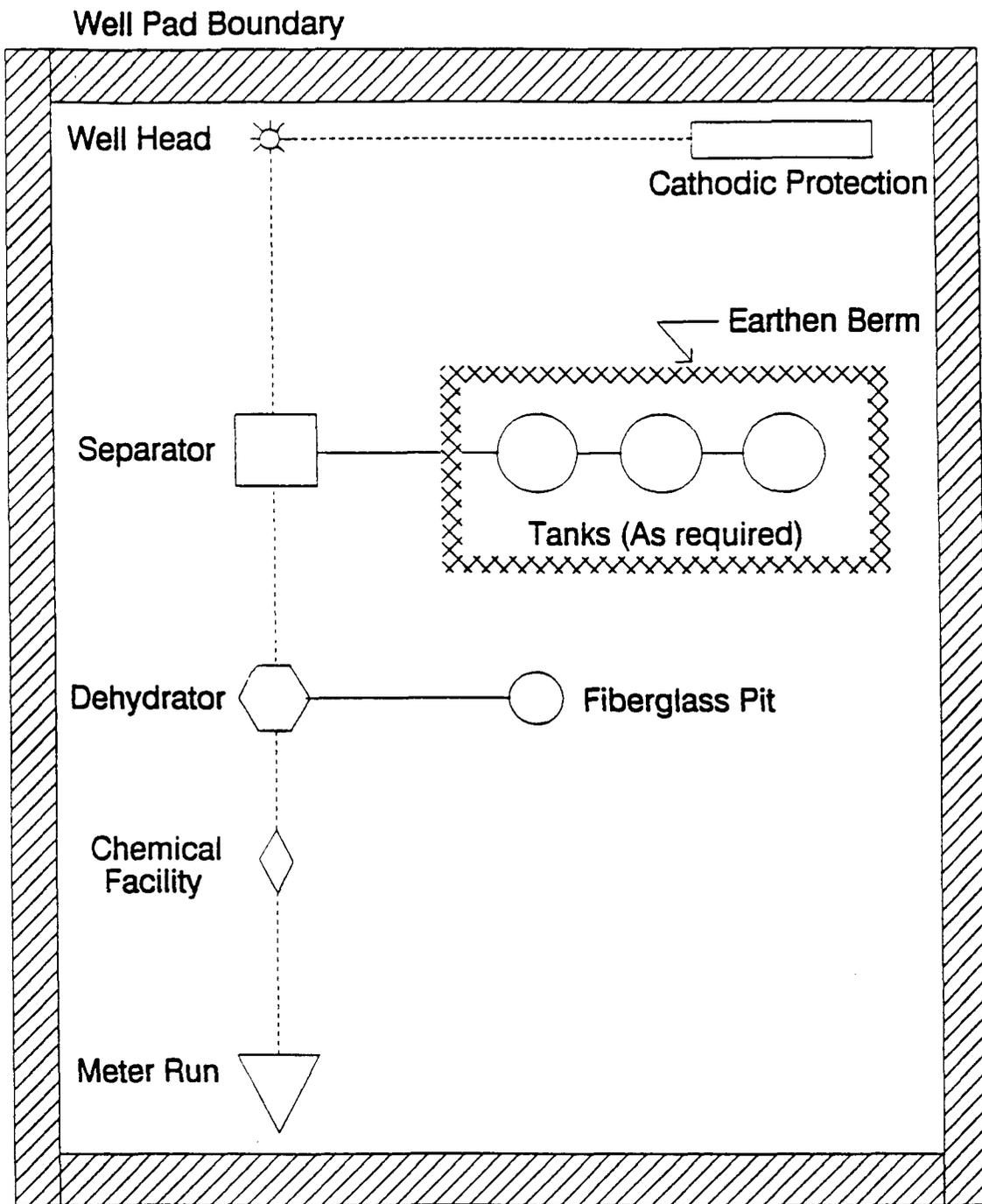
JWC:pb



**MERIDIAN OIL INC**  
**HUERFANITO UNIT #78M**  
T 27 N, R 09 W  
550' New Construction  
All roads are located on Navajo Tribal lands.  
**APD MAP #1**



MERIDIAN OIL INC.  
 Pipeline Map  
 T-27-N, R-09-W  
 San Juan County, New Mexico  
 Huerfanito Unit #78M  
 Map #1A



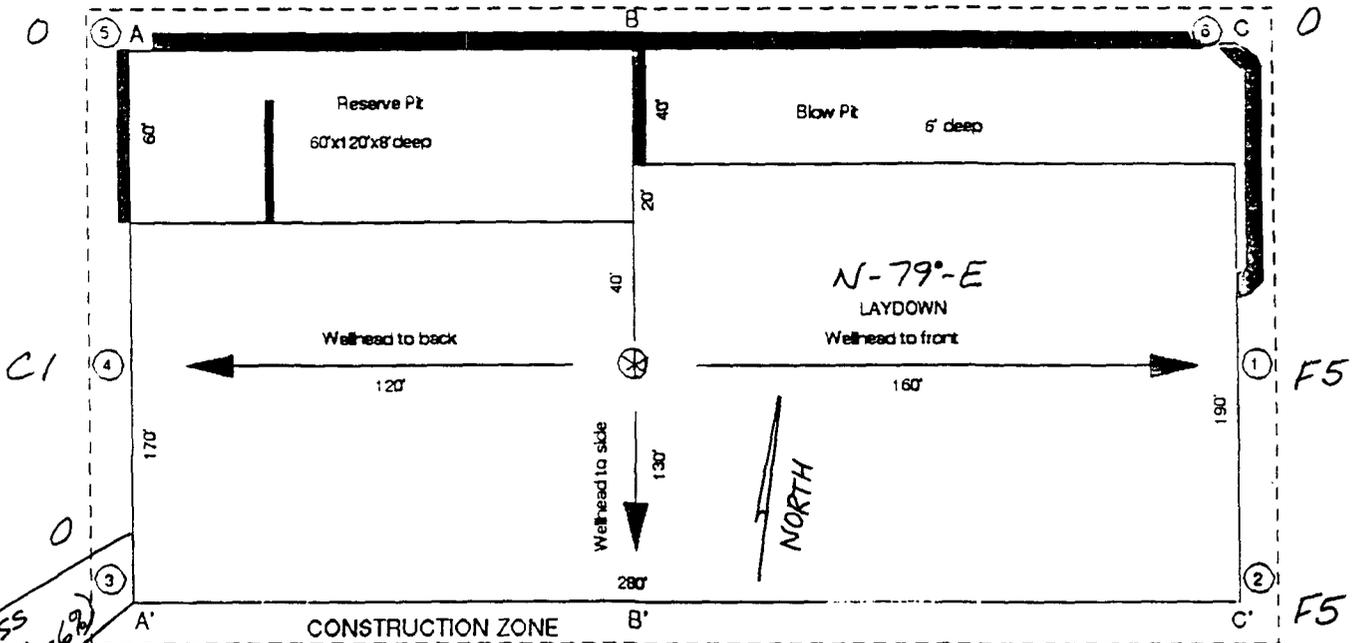
PLAT #1

**MERIDIAN OIL**  
 ANTICIPATED  
 PRODUCTION FACILITIES  
 FOR A  
 DAKOTA WELL

# MERIDIAN OIL

## Plat 5

Name: MOI HUERFANITO UNIT #78M  
 Footage: 1545 FSL 1270 FEL  
 Sec 36 T- 27 -N.R- 9 W NMPM  
 Co. SAN JUAN St. N.M.  
 Elevation: 6161' Date: 12-22-92



ACCESS  
550' (0-69)

A - A'		C/L			
6171					
6161		[Hand-drawn profile of wellhead]			
6151					
B - B'		C/L			
6171					
6161		[Hand-drawn profile of wellhead]			
6151					
C - C'		C/L			
6171					
6161		[Hand-drawn profile of wellhead]			
6151					

Figure #4

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
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 DD, Artesa, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

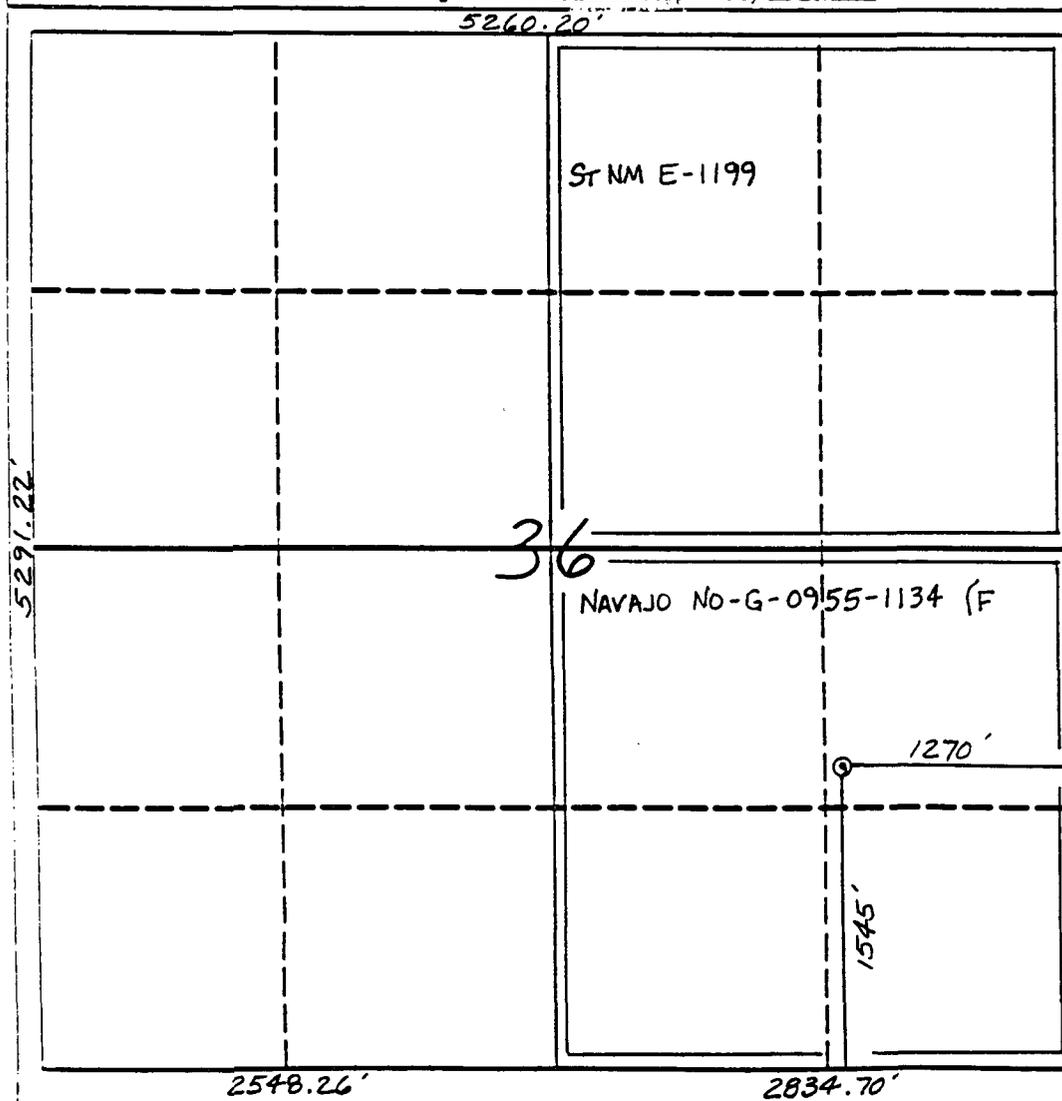
All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.			Lease Huerfanito Unit			Well No. 78M		
Unit Letter I	Section 36	Township 27 North	Range 9 West	County San Juan		NMPM		
Actual Footage Location of Well:								
1545 feet from the South line and			1270 feet from the East line					
Ground level Elev. 6161'		Producing Formation Mesa Verde/Dakota		Pool Blanco/Basin		Dedicated Acreage 320 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or inkline marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, forced-pooling, etc.?  
 Yes     No    If answer is "yes" type of consolidation unitization

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, 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  
Peggy Bradfield

Printed Name  
Regulatory Representative

Position  
Meridian Oil Inc.

Company

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes, 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.

Date Surveyed 12-22-92

Date Surveyed  
12-22-92

Signature  
G. EDWARDS

Professional Surveyor  
9857

Commission No.  
6857

Re: Meridian Oil Inc. Huerfanito Unit #78M  
1545'FSL, 1270'FEL Section 36, T-27-N, R-9-W - San Juan County, New Mexico  
API # 30-045-28971

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.

**Mesa Verde**

Snyder Oil  
1801 California Street  
Suite 3500  
Denver, Colorado 80202

**Dakota**

Merit Energy  
12222 Merit Drive, Suite 1500  
Dallas, TX 75251

A handwritten signature in black ink, appearing to read "Peggy A. Bradfield". The signature is fluid and cursive, with a large initial "P" and "B".

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

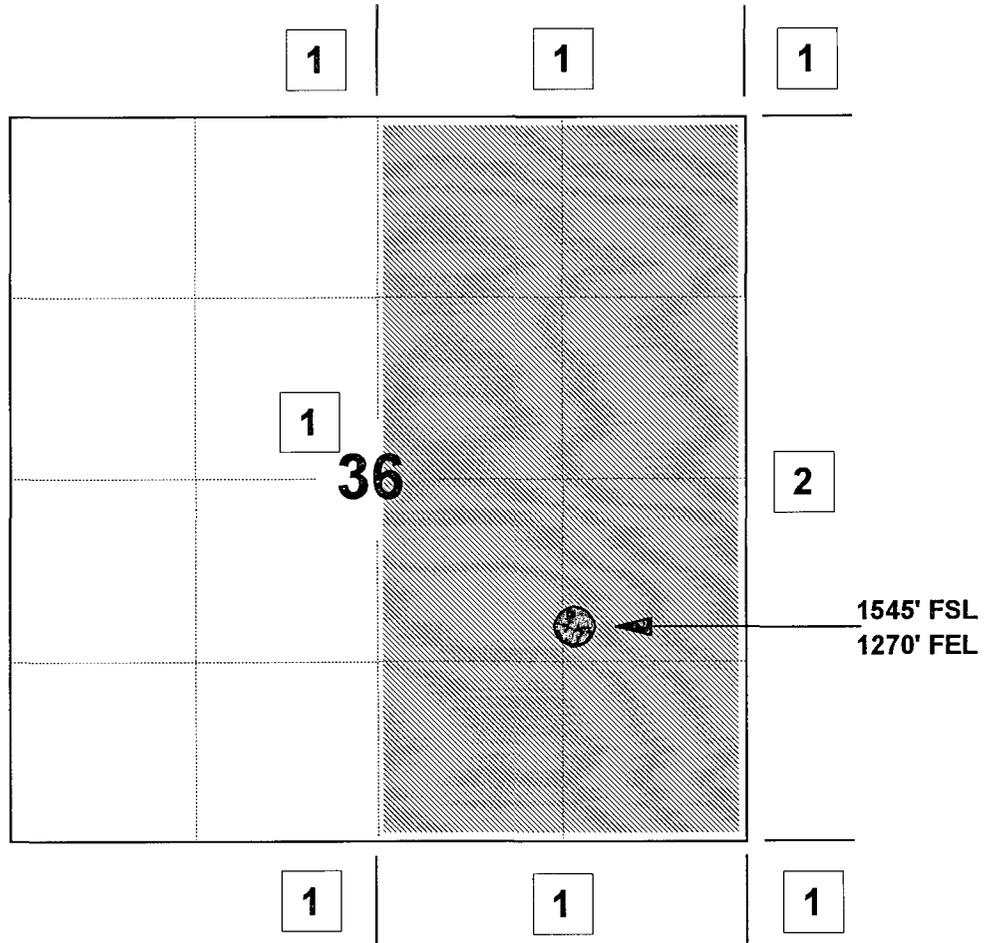
# MERIDIAN OIL INC

## HUERFANITO UNIT #78M

### OFFSET OPERATOR \ OWNER PLAT

Unorthodox Mesaverde Well Location

Township 27 North, Range 9 West



1) Meridian Oil Inc

2) Snyder Oil Company

1801 California St., Suite 3500, Denver, CO 80202

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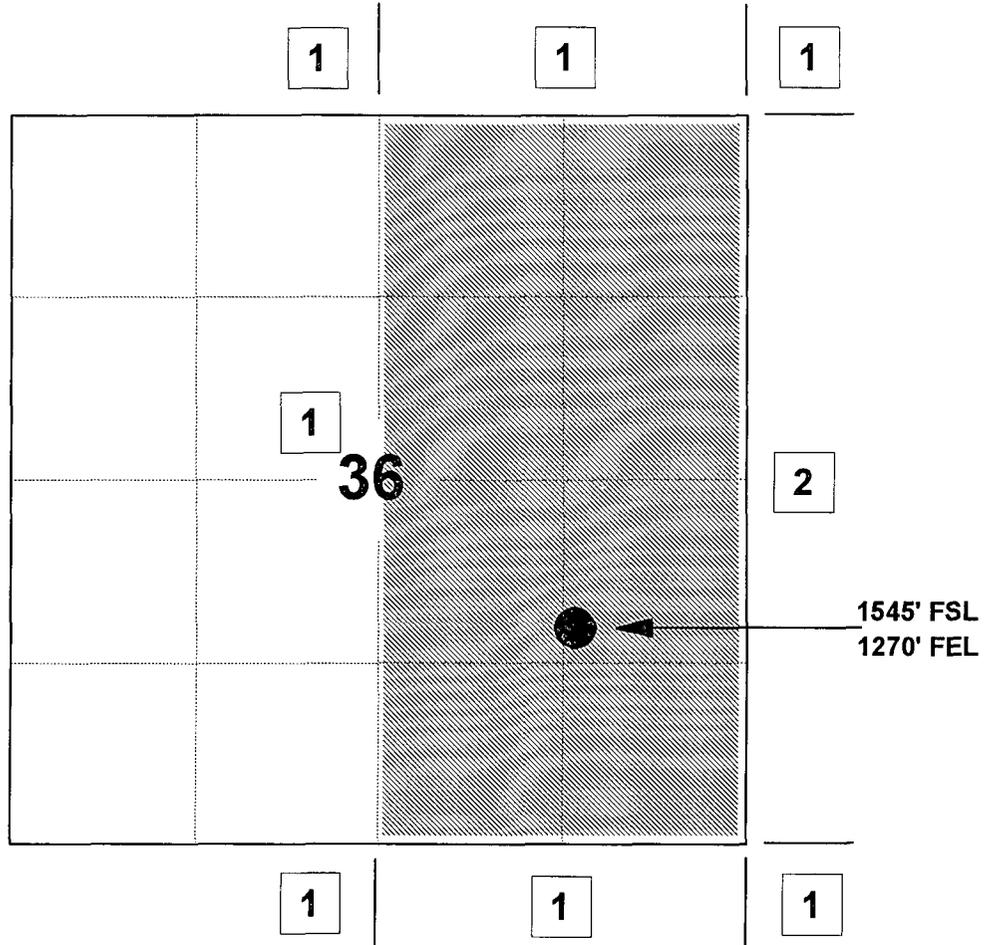
# MERIDIAN OIL INC

## HUERFANITO UNIT #78M

### OFFSET OPERATOR \ OWNER PLAT

Unorthodox Dakota Well Location

Township 27 North, Range 9 West



1) Meridian Oil Inc

2) Merit Energy Company

12222 Merit Drive, Suite 1500, Dallas, TX 75251

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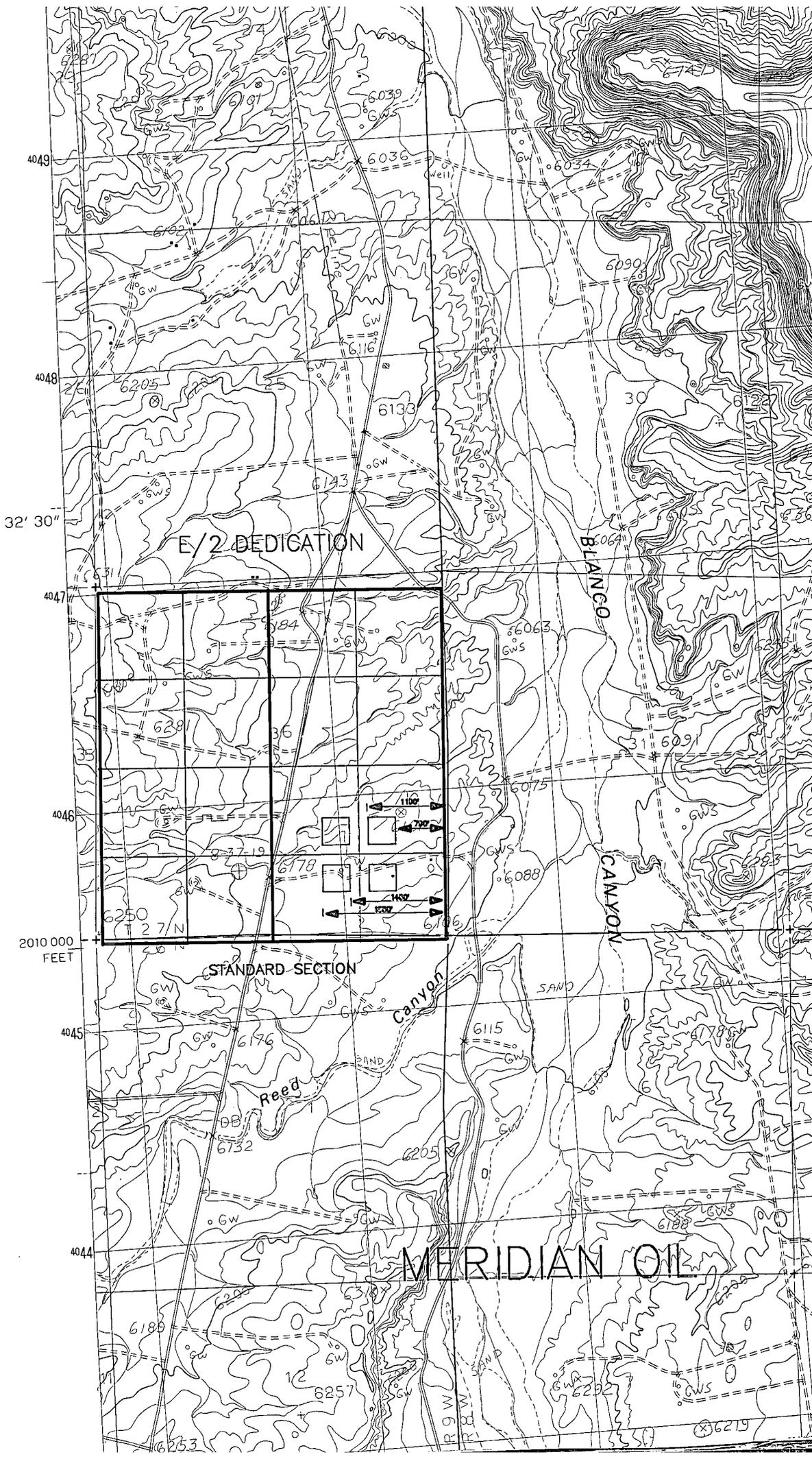
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4049

4048

32' 30"

4047

4046

2010 000  
FEET

4045

4044

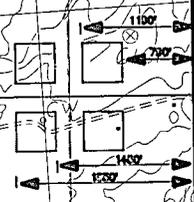
E/2 DEDICATION

STANDARD SECTION

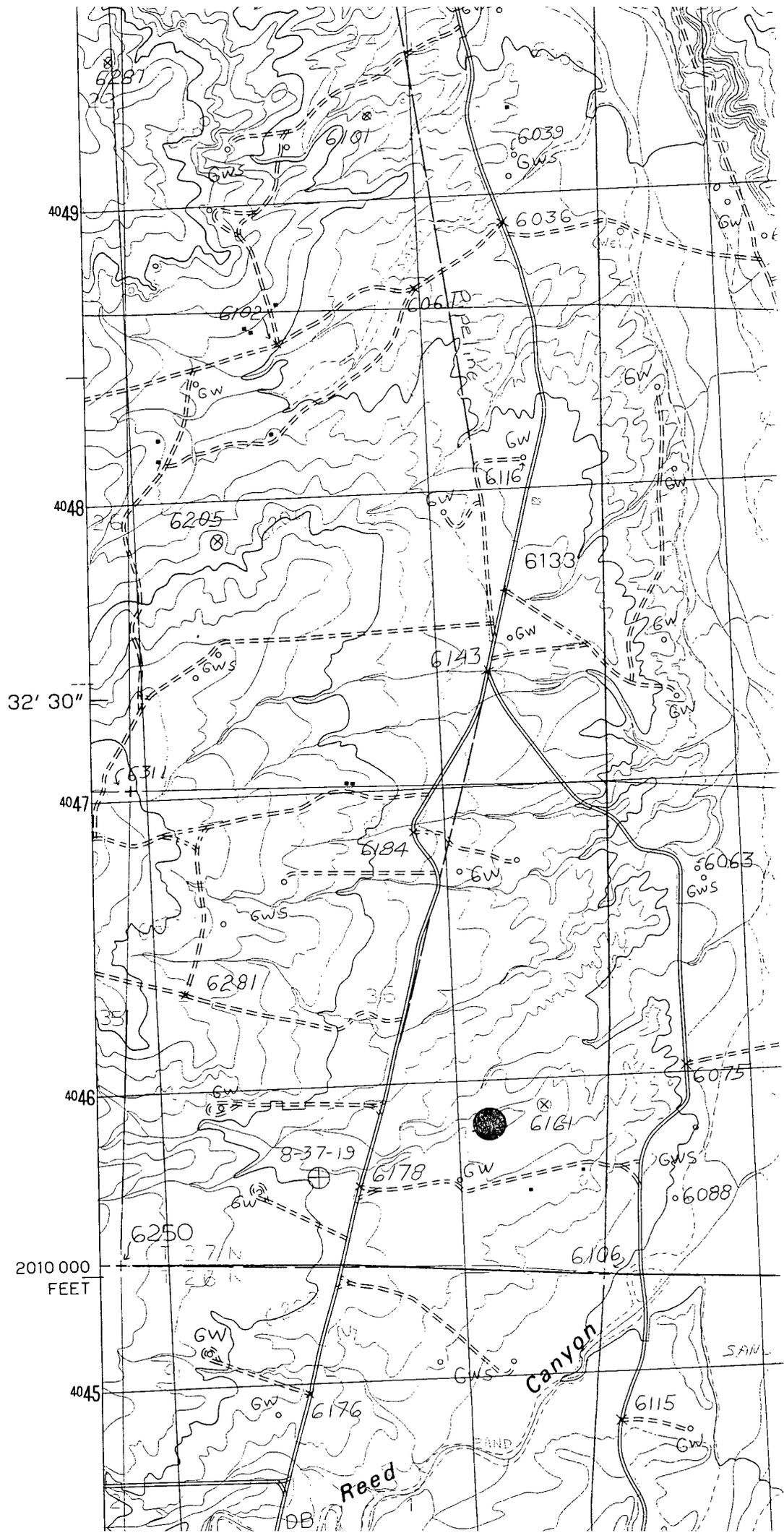
BLANCO  
CANYON

Reed  
Canyon

MERIDIAN OIL



(X)6219



**MERIDIAN OIL**

OIL CONSERVATION DIVISION  
RECEIVED

'94 OCT 3 AM 8 52

September 15, 1994

Sent Federal Express

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

Re: Meridian Oil Inc. Huerfanito Unit #78M  
1545'FSL, 1270'FEL Section 36, T-27-N, R-9-W - San Juan County, New Mexico  
API # 30-045-28971

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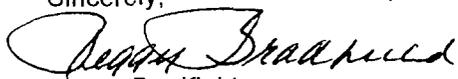
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Sincerely,

  
Peggy Bradfield  
Regulatory/Compliance Representative  
encs.

Snyder Oil Corp. hereby waives objection to Meridian Oil's application for a non-standard location for the Huerfanito Unit #78M as proposed above.

By: H. Richard Pate Date: 9.27.94

xc: Snyder Oil  
Merit Energy

**STATE OF NEW MEXICO  
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**CASE NO. 10701  
Order No. R-9887**

**APPLICATION OF MERIDIAN OIL INC.  
FOR DOWNHOLE COMMINGLING AND FOR  
AN ADMINISTRATIVE DOWNHOLE COMMINGLING  
PROCEDURE WITHIN THE HUERFANITO UNIT  
AREA, SAN JUAN COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on April 8, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 27th day of April, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Meridian Oil Inc., seeks approval to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the following described wells in San Juan County, New Mexico:

**WELL NAME & NUMBER**

**WELL LOCATION**

	<b><u>EXISTING WELLS</u></b>	<b><u>S T R</u></b>
Huerfanito Unit No. 71	660' FNL & 660' FEL (A)	3, 26N, 9W
Huerfanito Unit No. 104	1090' FSL & 825' FWL (M)	27, 27N, 9W

WELLS TO BE DRILLED

Huerfanito Unit No. 78M 1545' FSL & 1270' FEL (I) 36, 27N, 9W  
Huerfanito Unit No. 79M 1795' FSL & 1730' FEL (J) 26, 27N, 9W  
Huerfanito Unit No. 82M 870' FNL & 850' FWL (D) 25, 27N, 9W  
Huerfanito Unit No. 98M 790' FSL & 1500' FEL (O) 35, 27N, 9W

(3) The applicant further seeks the adoption of an administrative procedure for authorizing the downhole commingling of Blanco-Mesaverde and Basin-Dakota Pool production within certain existing and subsequently drilled wells in its Huerfanito Unit Area, San Juan County, New Mexico, without additional notice to each affected interest owner within the Unit Area.

(4) The Huerfanito Unit Well Nos. 71 and 104 are currently completed in the Basin-Dakota Pool and, according to Division records, are capable of low marginal production only.

(5) Within the Huerfanito Unit Well Nos. 71 and 104, the applicant expects to encounter marginal production only from the Mesaverde formation.

(6) Within the proposed Huerfanito Unit Well Nos. 78M, 79M, 82M and 98M, the applicant expects to encounter marginal production only from both the Dakota and Mesaverde formations.

(7) Applicant's further evidence indicates that due to the marginal production expected, it is uneconomic to drill either a stand alone Dakota or Mesaverde well in this area. Applicant's testimony also indicates that it is uneconomic to drill and complete the subject wells as dual producers.

(8) The proposed downhole commingling is necessary in order for the applicant to economically recover Basin-Dakota and Blanco-Mesaverde Pool reserves underlying each respective proration unit.

(9) The Huerfanito Unit is a Federal exploratory unit initially comprising some 10,245 acres in portions of Townships 26 and 27 North, Range 9 West, NMPM, San Juan County, New Mexico. The unit was formed in 1952 and is currently operated by Meridian Oil Inc.

(10) The evidence and testimony presented indicates that the Basin-Dakota Pool has been fully developed on 320-acre spacing within the Huerfanito Unit and that approximately half of the Unit Area has been developed in the Blanco-Mesaverde Pool.

(11) The applicant has identified approximately seventeen (17) Basin-Dakota Pool infill well locations it plans to drill within the Unit Area.

(12) Based upon historical production, the applicant expects Basin-Dakota Pool initial production from infill drilling to be marginal in nature.

(13) Testimony and evidence presented by the applicant indicates that gas reserves in the Dakota formation are not sufficient to economically justify the drilling of stand alone wells to produce such reserves.

(14) The current well economics and expected Dakota producing rates virtually assure that these wells will be candidates for downhole commingling with the Mesaverde formation.

(15) The applicant has also identified approximately eleven (11) current Dakota producing wells which also by virtue of well economics and producing rates make them candidates for downhole commingling with the Mesaverde formation.

(16) The applicant expects initial producing rates from the Mesaverde formation to be marginal in nature.

(17) The applicant further demonstrated through its evidence and testimony that within the wells it proposes or will propose to commingle within the Unit Area:

- a) there will be no crossflow between the two commingled pools;
- b) neither commingled zone exposes the other to damage by produced liquids;
- c) the fluids from each zone are compatible with the other;
- d) the bottomhole pressure of the lower pressure zone should not be less than 50 percent of the bottomhole pressure of the higher pressure zone adjusted to a common datum; and,
- e) the value of the commingled production is not less than the sum of the values of the individual production.

(18) The Dakota and Mesaverde Participating Areas within the Huerfanito Unit are not common.

(19) By virtue of different Participating Areas, the interest ownership between the Dakota and Mesaverde formations within any given wellbore is not common.

(20) Applicant's Exhibit E in this case is a list of one hundred and forty (140) interest owners in the Dakota and Mesaverde Participating Areas within the Huerfanito Unit. All such interest owners were notified of the application in this case.

(21) Rule No. 303(C) of the Division Rules and Regulations provides that administrative approval for downhole commingling may be granted provided that the interest ownership, including working, royalty and overriding royalty interest, is common among the commingled zones.

(22) Applicant's proposed administrative procedure would provide for Division approval to downhole commingle wells in the Huerfanito Unit Area without hearing, and without the requirement that each interest owner in the Dakota and Mesaverde Participating Areas be notified of such commingling.

(23) The downhole commingling of wells within the Huerfanito Unit Area will benefit working, royalty and overriding royalty interest owners. In addition, the downhole commingling of wells within the Huerfanito Unit Area should not violate the correlative rights of any interest owner.

(24) The evidence in this case indicates that notice to each interest owner within the Dakota and Mesaverde Participating Areas of subsequent downhole comminglings within the Huerfanito Unit is unnecessary and is an excessive burden on the applicant.

(25) No interest owner and/or offset operator appeared at the hearing in opposition to the application.

(26) An administrative procedure should be established within the Huerfanito Unit for obtaining approval for subsequently downhole commingled wells without notice to Unit interest owners and hearing, provided however that, all provisions contained within Rule No. 303(C) of the Division Rules and Regulations, with the exception of Part 1 (b)(v), are fully complied with.

(27) The proposed administrative procedure for obtaining approval for downhole commingling will allow the applicant the opportunity to recover additional gas reserves from the Huerfanito Unit Area which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(28) In the interest of prevention of waste and protection of correlative rights, the proposed downhole commingling within the Huerfanito Unit Well Nos. 71, 104, 78M, 79M, 82M and 98M should be approved.

(29) The applicant should consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of the subject wells in order to determine a proper allocation of production.

(30) The operator should immediately notify the supervisor of the Aztec district office of the Division any time any of the subject wells has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Meridian Oil Inc., is hereby authorized to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the following described wells in San Juan County, New Mexico:

<u>WELL NAME &amp; NUMBER</u>	<u>WELL LOCATION</u>
	<u>EXISTING WELLS</u>
	<u>S T R</u>
Huerfanito Unit No. 71	660' FNL & 660' FEL (A) 3, 26N, 9W
Huerfanito Unit No. 104	1090' FSL & 825' FWL (M) 27, 27N, 9W

**WELLS TO BE DRILLED**

Huerfanito Unit No. 78M	1545' FSL & 1270' FEL (I) 36, 27N, 9W
Huerfanito Unit No. 79M	1795' FSL & 1730' FEL (J) 26, 27N, 9W
Huerfanito Unit No. 82M	870' FNL & 850' FWL (D) 25, 27N, 9W
Huerfanito Unit No. 98M	790' FSL & 1500' FEL (O) 35, 27N, 9W

(2) The applicant shall consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of the subject wells in order to determine a proper allocation of production.

(3) The operator shall immediately notify the supervisor of the Aztec district office of the Division any time any of the subject wells has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

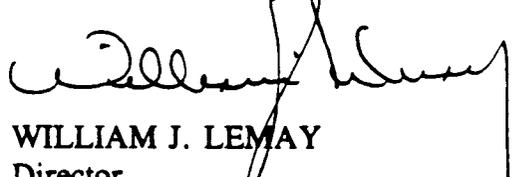
(4) An administrative procedure for obtaining approval to downhole commingle wells within the Huerfanito Unit, located in portions of Townships 26 and 27 North, Range 9 West, NMPM, San Juan County, New Mexico, is hereby established.

(5) In order to obtain Division authorization to downhole commingle wells within the Huerfanito Unit, the applicant shall file an application with the Santa Fe and Aztec Offices of the Division. Such application shall contain all of the information required under Rule No. 303(C) of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the Dakota and Mesaverde Participating Areas in the Huerfanito Unit of such proposed commingling. In addition, the application shall contain evidence that all offset operators and the United States Bureau of Land Management (BLM) have been notified of the proposed commingling.

(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director

S E A L

**Mike Stogner**

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**From:** Ernie Busch  
**To:** Mike Stogner  
**Subject:** MERIDIAN OIL INC (NSL)  
**Date:** Thu, Nov 3, 1994 8:22AM  
**Priority:** High

HUERFANO UNIT ~~#76M~~ *78-M*  
I-36-27N-09W  
1545' FSL; 1270' FEL  
RECOMMEND: APPROVAL