

**MERIDIAN OIL**

*Rec. 4/6/94*

April 4, 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. San Juan 28-5 Unit #242~~  
1575'FSL, 215'FWL, Section 12, T-28-N, R-5-W - Rio Arriba County, New Mexico  
API # 30-039-(not assigned)

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Basin Fruitland Coal and South Blanco Pictured Cliffs formations. This application for the referenced location is due to terrain as shown on the topographic map and at the request of the Bureau of Land Management, due to special wildlife concerns (bald eagle habitat).

This well is planned as a Basin Fruitland Coal/South Blanco Pictured Cliffs well, and application will be made to the New Mexico Oil Conservation Division to commingle this well.

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 southwest quarter dedication for the Pictured Cliffs and the south half dedication for the Fruitland Coal; and enlargement of the map to define topographic features.
5. If the well were directionally drilled to a standard bottom hole location, the economics would be severely burdened due to the incremental directional drilling costs of \$140,000.

Meridian Oil Inc. is operator of the San Juan 28-5 Unit and is the offsetting operator for this section.

Sincerely,

  
Peggy Bradfield  
Regulatory/Compliance Representative

encs.

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 SF-079519A	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>MERIDIAN OIL</b>	7. Unit Agreement Name San Juan 28-5 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name San Juan 28-5 Unit 9. Well Number 242	
4. Location of Well 1575' FSL, 215' FWL  Latitude 36° 40' 24", Longitude 107° 19' 08"	10. Field, Pool, Wildcat Basin Ft Coal/ S. Blanco PC 11. Sec., Twn, Rge, Mer. Sec 12, T-28-N, R-5-W NMPM	
14. Distance in Miles from Nearest Town 4 miles to Gobernador, NM	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 215'	17. Acres Assigned to Well 299.04 S/2; 139.63 SW/4	
16. Acres in Lease	20. Rotary or Cable Tools Rotary	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 700'	22. Approx. Date Work will Start 1st quarter 1994	
19. Proposed Depth 4565'	23. Proposed Casing and Cementing Program See Operations Plan attached	
21. Elevations (DF, FT, GR, Etc.) 7418' GL	24. Authorized by:  Regional Drilling Engineer	
		Date 11/8/93

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

Office of Administration  
 District Office  
 State Lands - 4 acres  
 Fee Lands - 3 acres

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-182  
 Revision 8-1-89

**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 00, Aramis, NM 88210

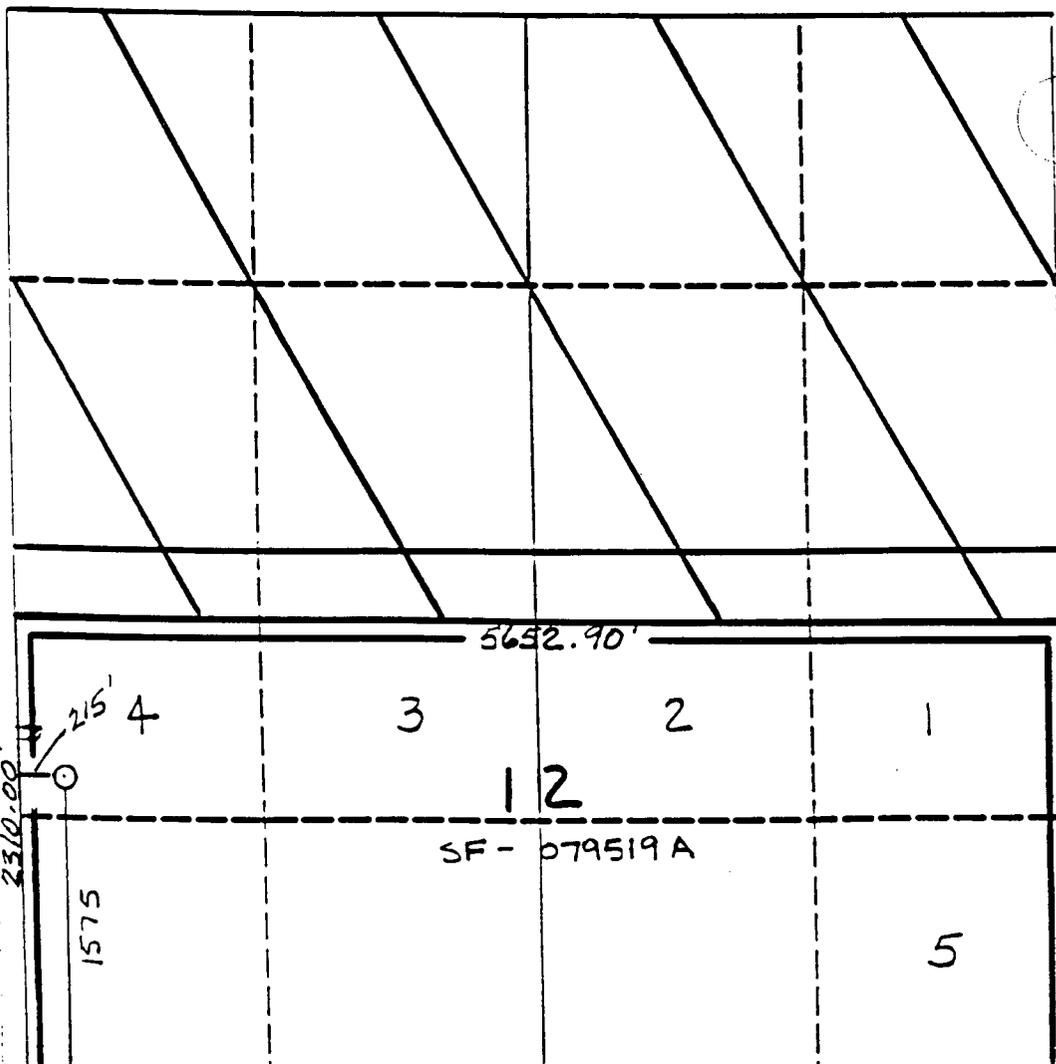
DISTRICT III  
 1000 Rio Arriba Rd., Aztec, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.		Lease San Juan 28-5 Unit		Well No. 242
Unit Letter M	Section 12	Township 28 North	Range 5 West	County Rio Arriba
Approximate Location of Well: 1575 feet from the South line and 215 feet from the West line				
Ground level Elev. 7418	Producing Formation Fruitland Coal/Pictured Cliffs	Pool Basin/S. Blanco	Dedicated Acreage 299.04/139.63 Acres	

- Outline the acreage contained in the subject well by corner points or section 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 interests of all owners been considered by commutation, unitization, force-pooling, etc?  
 Yes  No If answer is "yes" type of consideration unitization  
 If answer is "no" list the owners and their descriptions which have already been considered. (Use reverse side of this form if necessary.)  
 No allotments will be accepted to the well until all interests have been considered (by commutation, unitization, force-pooling, or otherwise) or until a non-commuted well, obtaining 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  
 Position  
 Meridian Oil Inc.  
 Company  
 11-4-93  
 Date

**SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was placed 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. 10-9-93

Date Surveyed 10-9-93  
 Name G. EDWARDS  
 Signature G. Edwards  
 Registered Professional Surveyor  
 (9857)  
 State of New Mexico  
 Seal of the State Surveyor

OPERATIONS PLAN

**Well Name:** San Juan 28-5 Unit #242  
**Location:** 1575'FSL, 215'FWL Section 12, T-28-N, R-5-W  
 Rio Arriba County, New Mexico  
 Latitude 36° 40' 24", Longitude 107° 19' 08"  
**Formation:** Basin Fruitland Coal/S.Blanco Pictured Cliffs  
**Elevation:** 7418'GL

<b>Formation:</b>	<b>Top</b>	<b>Bottom</b>	<b>Contents</b>
Surface	San Jose	3740'	
Ojo Alamo	3740'	3895'	aquifer
Kirtland	3895'	4140'	
Fruitland	4140'	4390'	
Fruitland Coal Top	4205'	4385'	gas
Pictured Cliffs	4390'	4520'	gas
Lewis	4520'		
Total Depth	4565'		

**Logging Program:** Mud logs from 4100' to Total Depth  
 DIL-GR-SP - surface to Total Depth  
 GL-GR-SP-CAL/Dens-Neut-GR-CAL - 3700' to Total Depth

**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
200-4565'	Non-dispersed	8.4-9.5	30-60	no 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-40
7 7/8"	0 - 4565'	4 1/2"	10.5#	K-55

**Tubing Program:**

0 - 4565'	2 3/8"	4.7#	J-55
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**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 @ 3895'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3895'. 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.

November 6, 1993

**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 -

First stage - lead w/55 sx Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, 6.25# gilsonite/sx and 1/4# flocele/sx (98 cu.ft. of slurry), tail w/100 sx Class "B" w/2% calcium chloride, 5#/sx gilsonite, 0.25#/sx celloflake (118 cu.ft.), 100% excess to circulate stage tool @ 4090').

Second stage - lead w/888 sx of Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, 6.25# gilsonite/sx and 1/4# flocele/sx (1572 cu.ft.). Tail w/50 sx Class "B" w/2% calcium chloride (59 cu.ft. of slurry, 75% 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 1150 psi and for the Pictured Cliffs is 1150 psi.

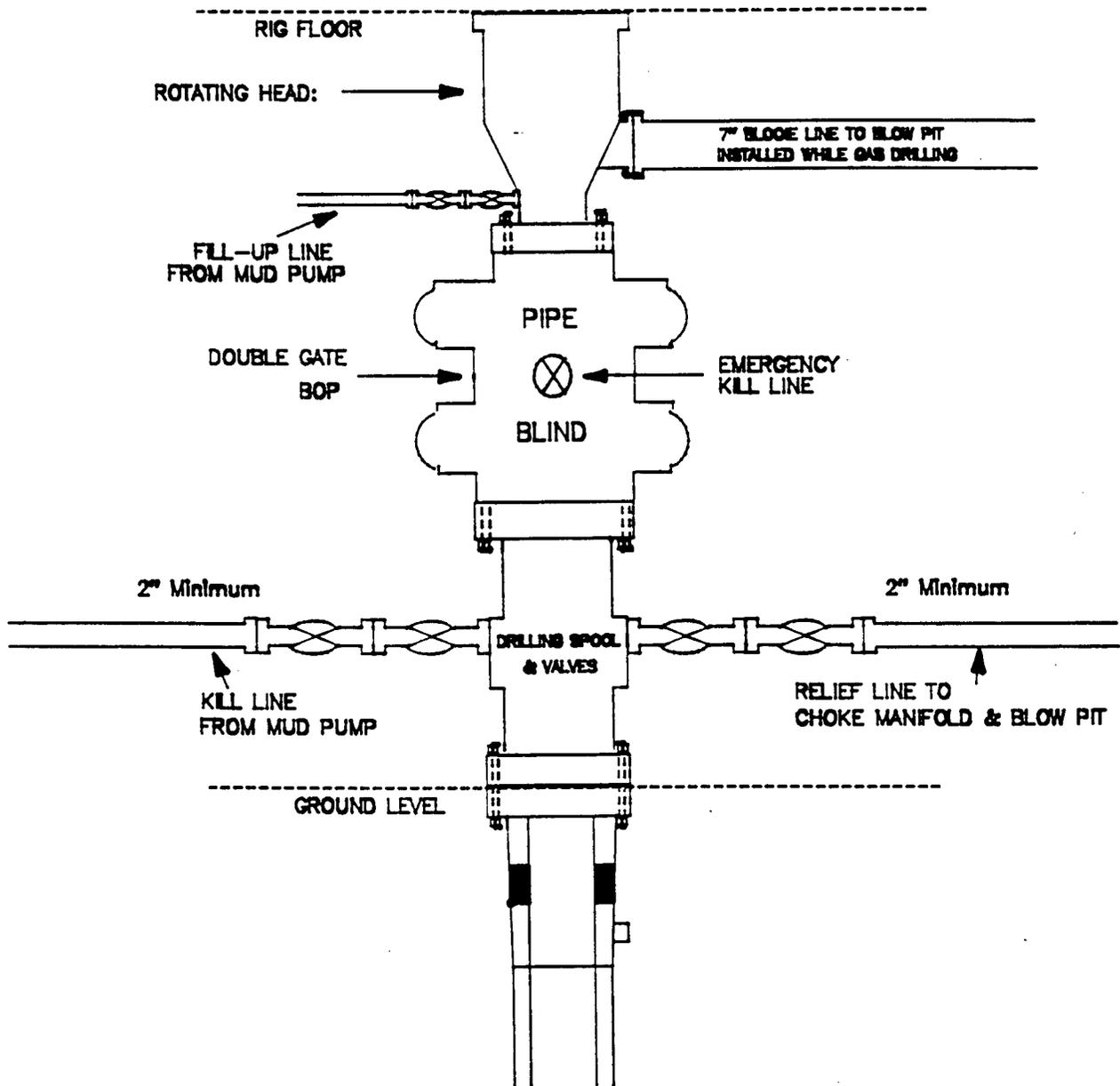
\* This gas is dedicated.

\* The south half of Section 12 is dedicated to the Fruitland Coal and the southwest 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**



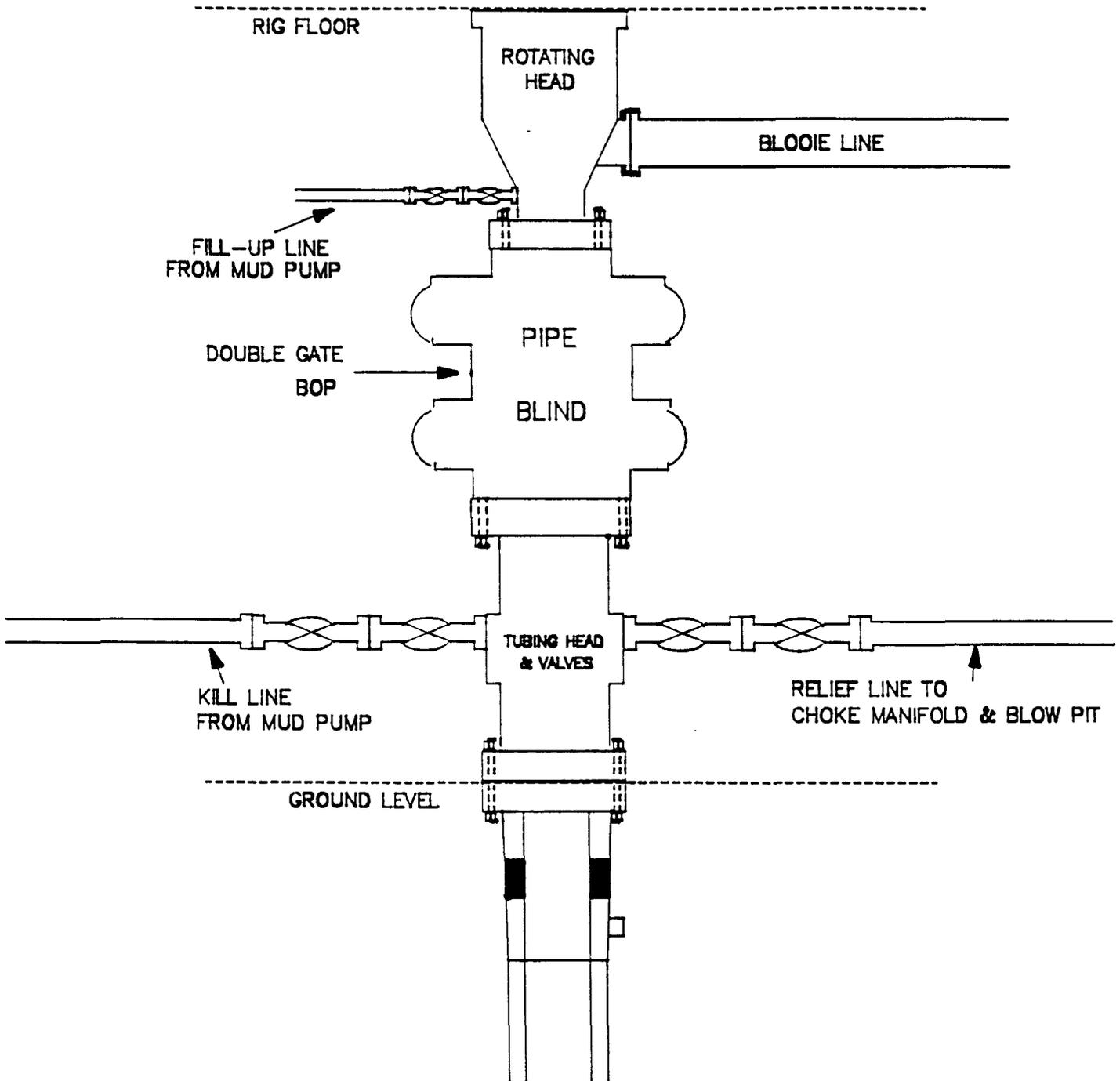
11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

# MERIDIAN OIL INC.

BOP Configuration

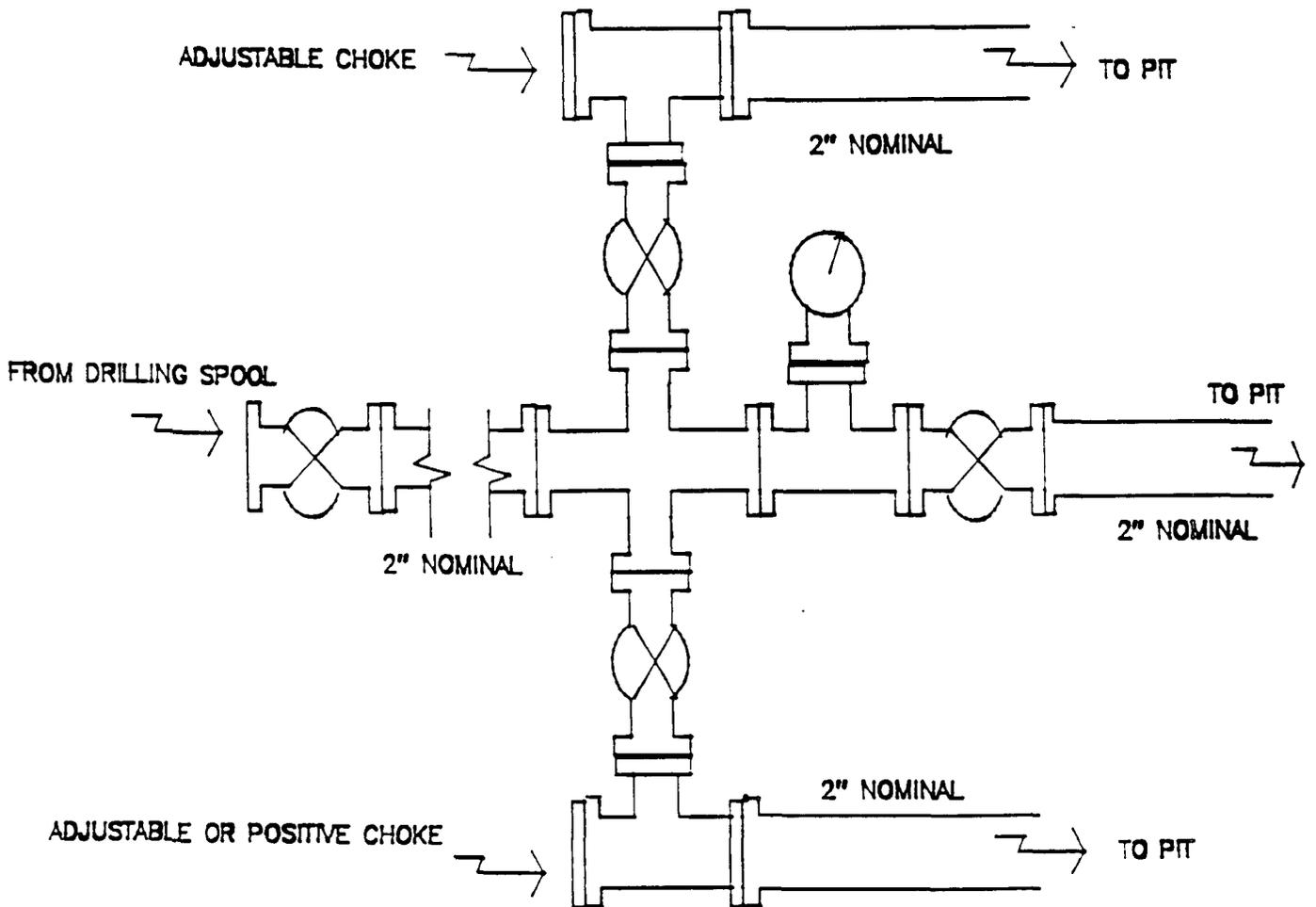
2M psi SYSTEM



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**  
San Juan 28-5 Unit #242  
Multi-Point Surface Use Plan

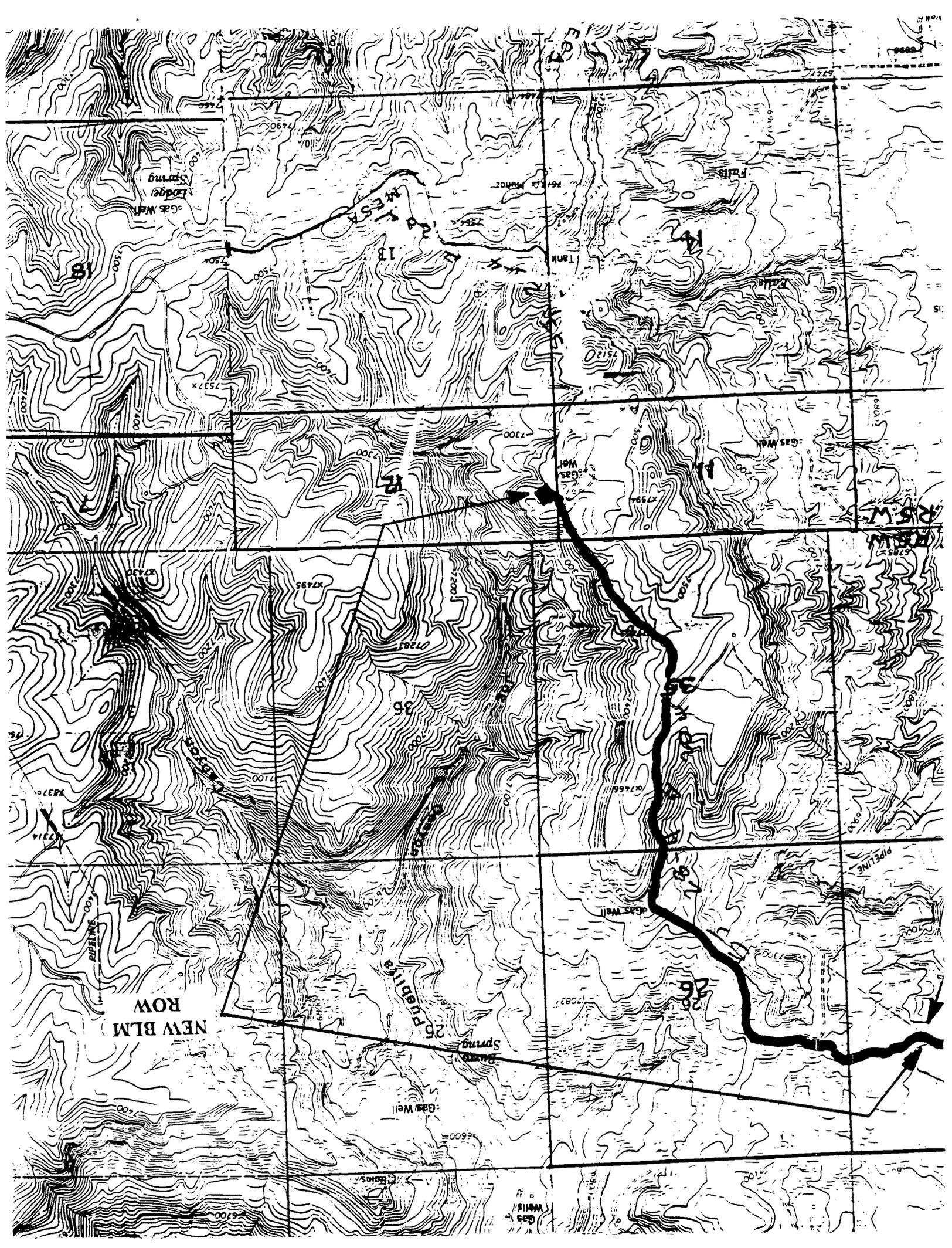
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. None required.
3. Location 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 San Juan 29-6 Water Well #1 in located in SW/4 Section 28, T-29-N, R-6-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.

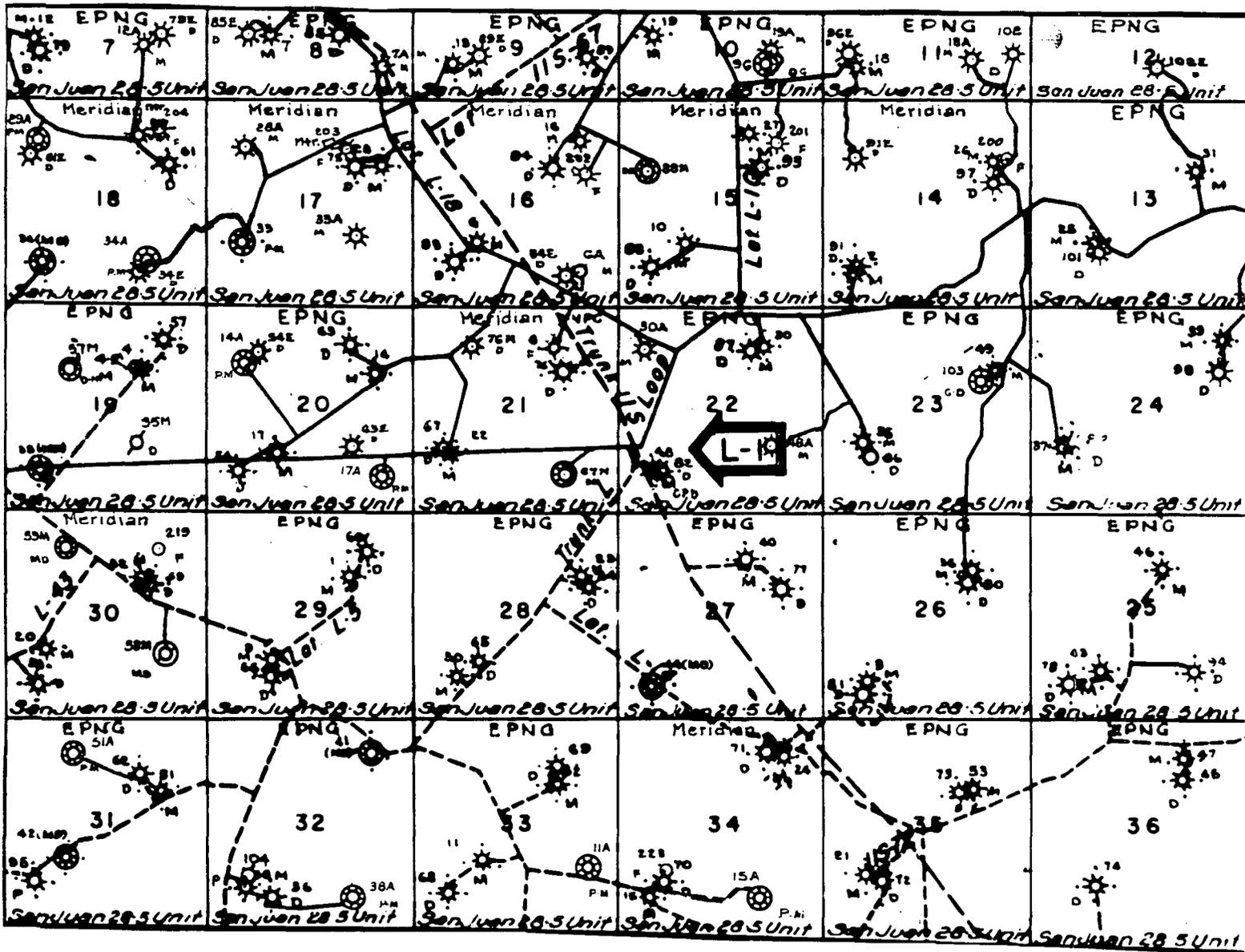
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be 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

11/8/93  
Date

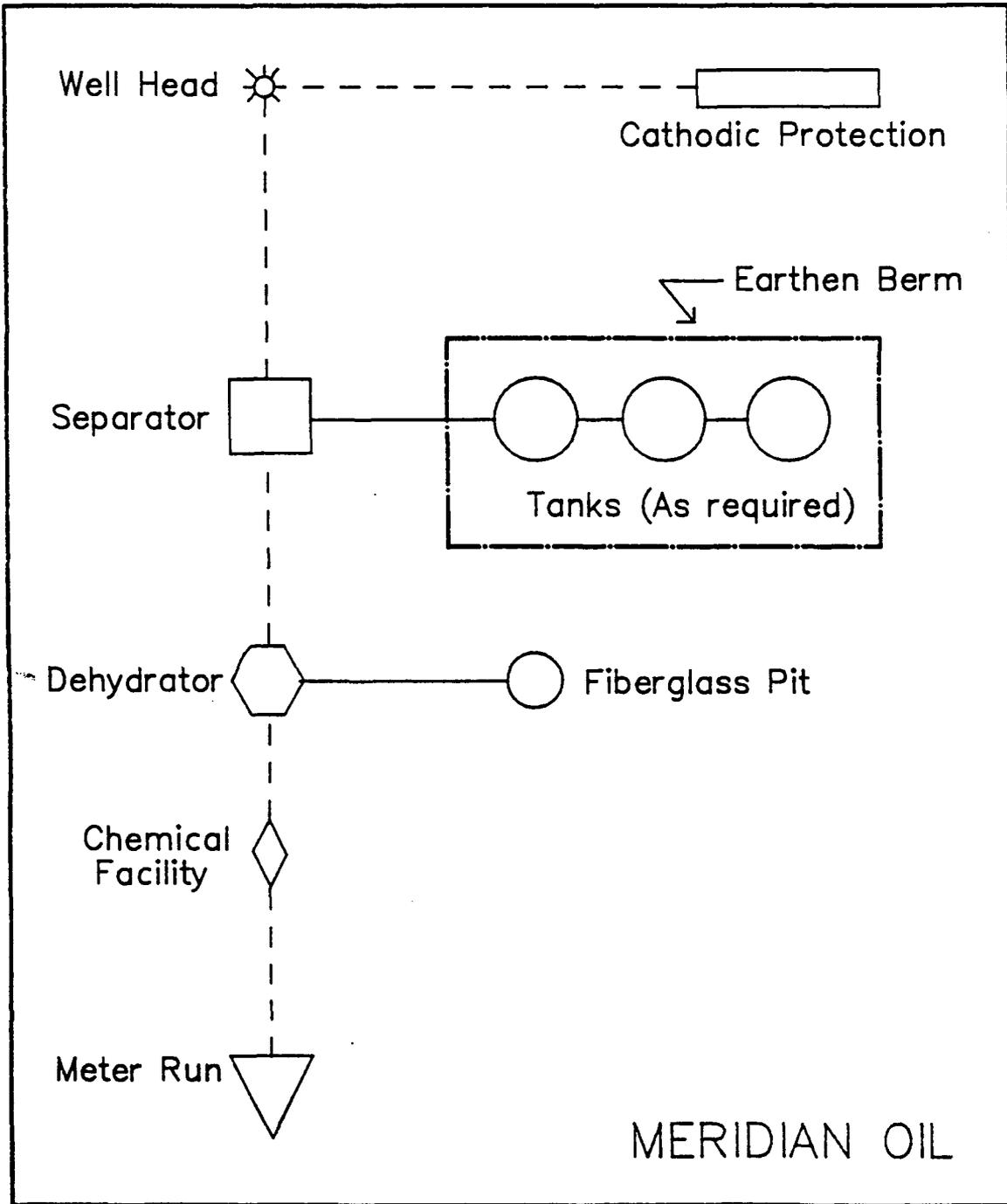
JWC:pb





MERIDIAN OIL INC.  
 Pipeline Map  
 T-28-N, R-05-W  
 San Juan County, New Mexico  
 San Juan 28-5 Unit #242  
 Map #1A

Well Pad Boundary



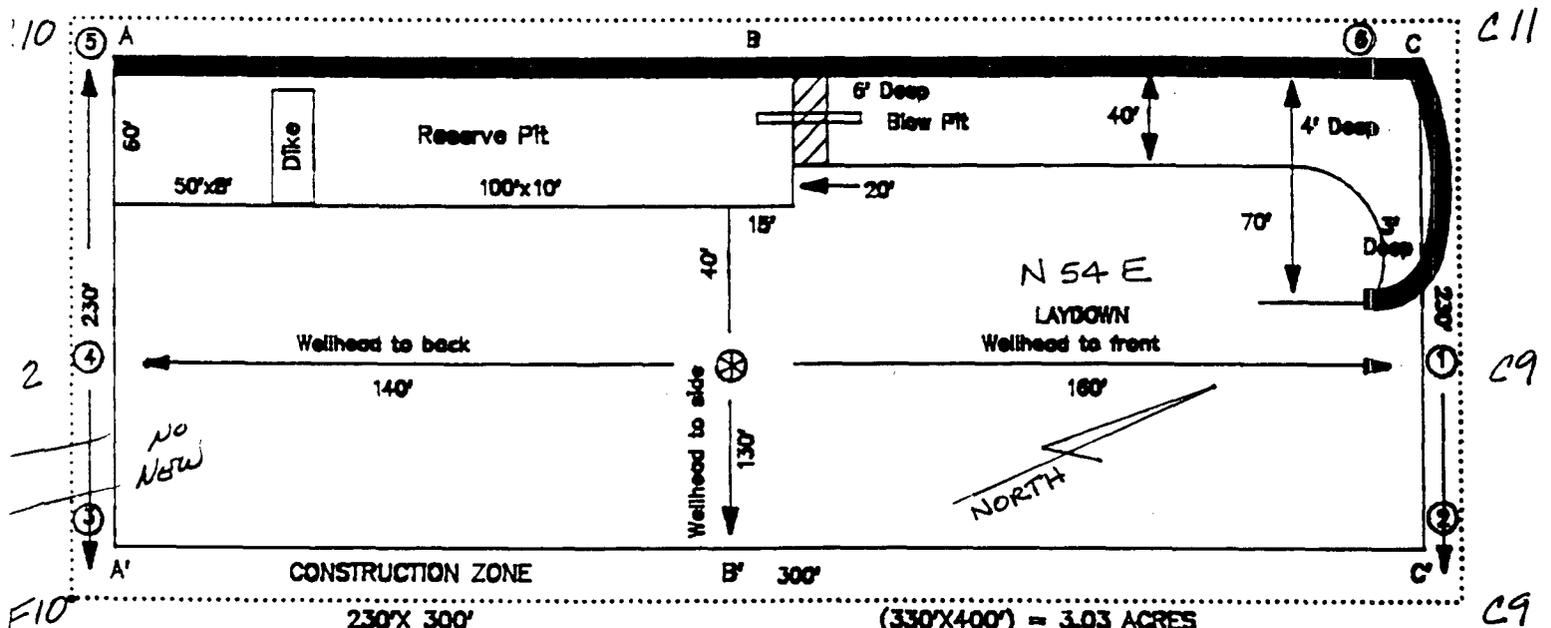
ANTICIPATED  
PRODUCTION FACILITIES  
FOR A  
FRUITLAND COAL/PICTURED CLIFFS COMMINGLED WELL

# MERIDIAN OIL

PLAT #1

PC/FC LOW POTENTIAL

NAME:	SAN JUAN 28-5 UNIT # 242		
FOOTAGE:	1575 FSL	215 FWL	
SEC:	12	TWN: 28 N	N.R: 5 W NMPM
CO:	Rio Arriba	ST:	N.M.
ELEVATION:	7418	DATE:	10/27/93

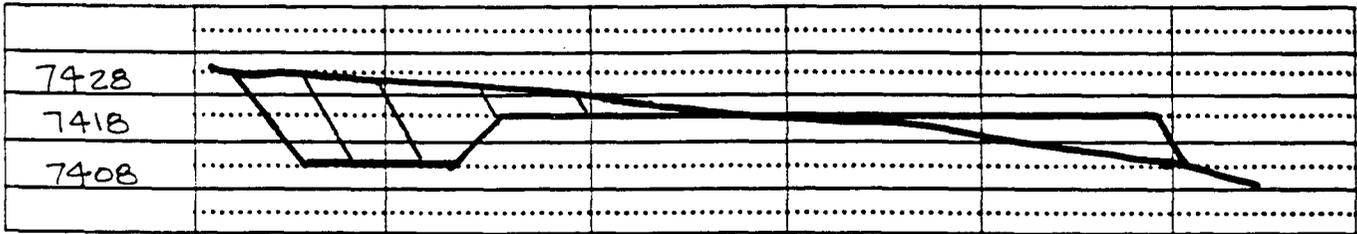


Reserve Pit Dike : to be 8' above Deep side; { overflow - 3' wide and 1' above shallow side. }

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

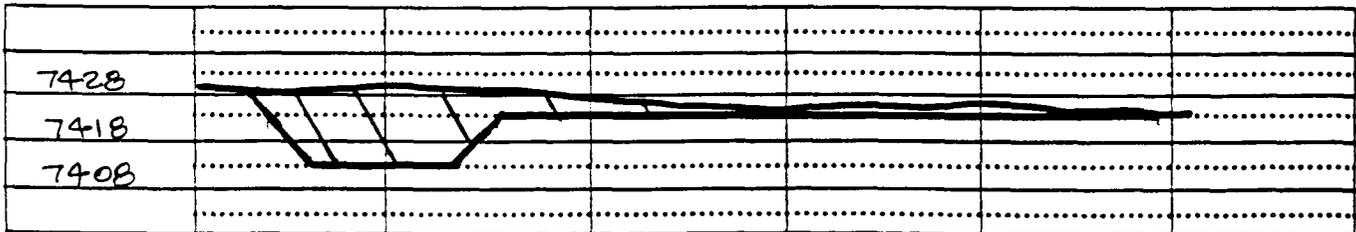
A-A'

C/L



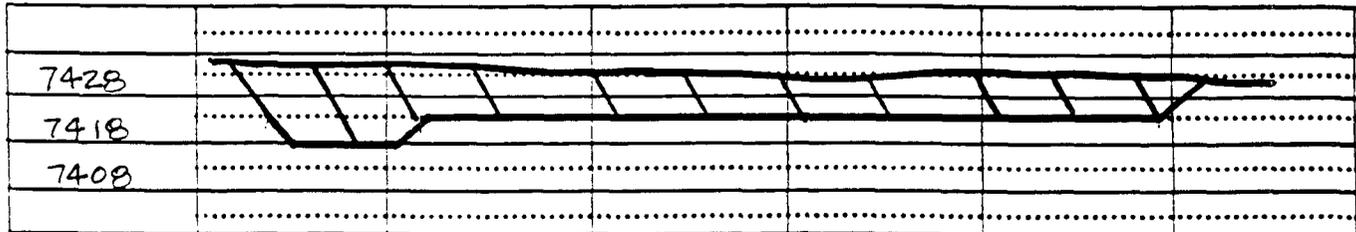
B-B'

C/L



C-C'

C/L



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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-88

**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 00, Artesa, NM 88210

DISTRICT III  
1000 Rio Arriba Rd., Alamo, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer corners of the section

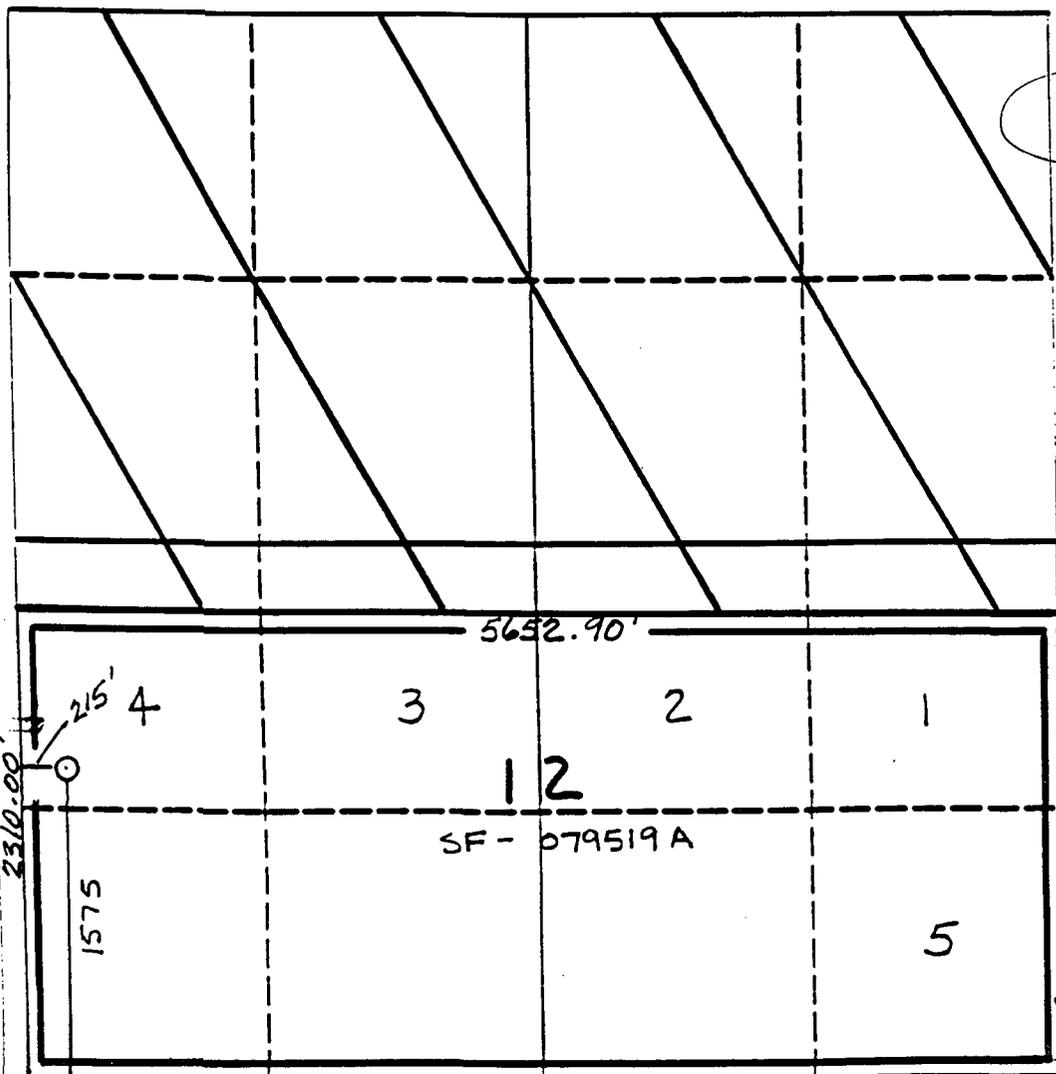
Operator Meridian Oil Inc.			Lease San Juan 28-5 Unit		Well No. 242
Unit Letter M	Section 12	Township 28 North	Range 5 West	County Rio Arriba	
Actual Footage Location of Well: 1575 feet from the South line and 215 feet from the West line					
Ground level Elev. 7418	Producing Formation Fruitland Coal/Pictured Cliffs		Pool Basin/S. Blanco	Dedicated Acreage 299.04/139.63 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or ink 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 commutation, unitization, force-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 allowances will be assigned to the well until all interests have been consolidated (by commutation, 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 Bradford*  
Signature

Peggy Bradford  
Printed Name

Regulatory Representative  
Position

Meridian Oil Inc.  
Company

3-11-94  
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. 10-9-93

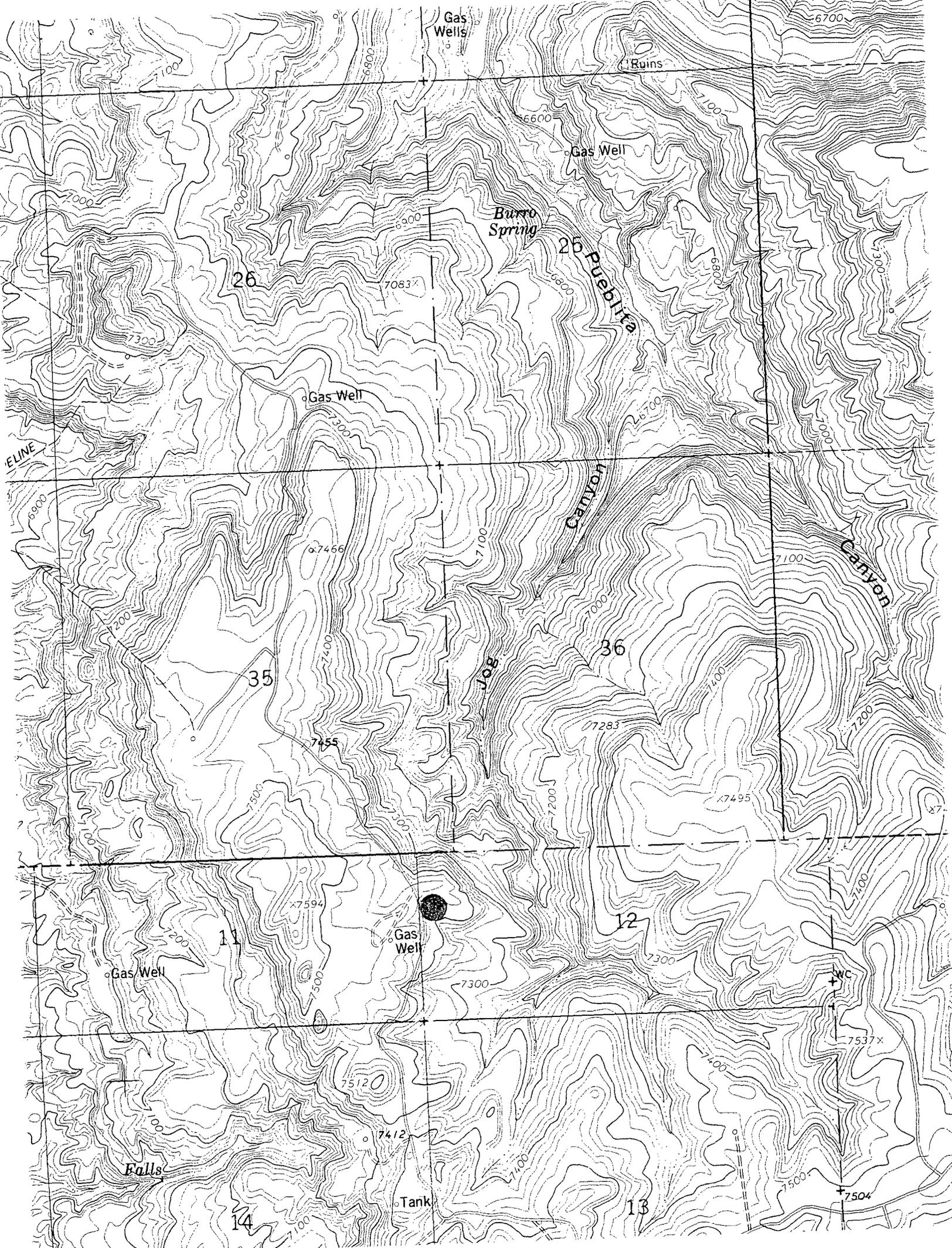
Date Surveyed  
Neal C. Edwards

Signature of State Professional Surveyor  
3857

*Neal C. Edwards*  
Signature  
3857  
Certificate No.







Gas Wells

Ruins

Gas Well

Burro Spring

26

26 Pueblita Canyon

Gas Well

ELINE

Job Canyon

Canyon

35

36

11

12

Gas Well

Gas Well

Falls

Tank

14

13

WC

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

04/26/94 13:17:25  
OGOMES -EMGA  
PAGE NO: 2

Sec : 12 Twp : 28N Rng : 05W Section Type : NORMAL

4 29.95  Federal owned	3 29.86  Federal owned	2 29.77  Federal owned	1 38.06  Federal owned
M 40.00  Federal owned	N 40.00  Federal owned	O 40.00  Federal owned  A	5 51.40  Federal owned

PF01 HELP  
PF07 BKWD

PF02  
PF08 FWD

PF03 EXIT  
PF09 PRINT

PF04 GoTo  
PF10 SDIV

PF05  
PF11

PF06  
PF12