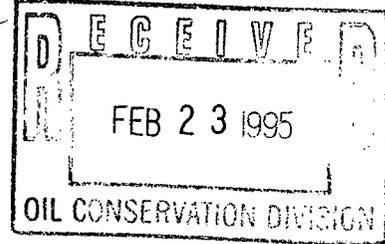


NSL-MERD

Suspence Date

3/15/95

MERIDIAN OIL



February 21, 1995  
Sent Federal Express

Mr. William LeMay  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87504

see NSL-2025, 5  
6  
7 for  
example

Re: Meridian Oil Inc. Canyon Largo Unit #427  
900'FSL, 2215'FWL Section 11, T-25-N, R-7-W - Rio Arriba County, New Mexico  
API # 30-039-not yet assigned

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above well in the Basin Dakota formation. This application for the referenced location is due to topographic reasons and to minimize any surface disturbance in the grazing lands at the request of the grazing permittee and the Bureau of Land Management (see attached letter). This location is also for archaeological considerations.

This well will be drilled and completed as a single Basin Dakota 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 and affidavit of notification.
4. 7.5 minute topographic map showing the orthodox windows for the Dakota, and enlargement of the map to define topographic features.
5. Letter from Bureau of Land Management

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.

It is planned to drill this well early in the second quarter of 1995. Therefore, your prompt consideration of this request is greatly appreciated.

Sincerely,

Peggy Bradfield  
Regulatory/Compliance Representative  
encs.

**WAIVER**

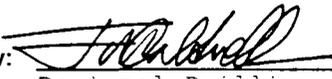
\_\_\_\_\_ hereby waives objection to Meridian Oil's application for a non-standard location for their Canyon Largo Unit #427 as proposed above.

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

xc: Mr. Norman L. Gilbreath

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-078881 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator MERIDIAN OIL	7. Unit Agreement Name Canyon Largo Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name Canyon Largo Unit 9. Well Number 427	
4. Location of Well 900' FSL, 2215' FWL  Latitude 36° 24' 38", Longitude 107° 32' 41"	10. Field, Pool, Wildcat Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec 11, T-25-N, R-7-W API # 30-039-	
14. Distance in Miles from Nearest Town 24 miles southeast of Blanco, NM	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 900'		
16. Acres in Lease	17. Acres Assigned to Well W/2 320	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 2300'		
19. Proposed Depth 6960'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6408' GR	22. Approx. Date Work will Start 2nd quarter 1995	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by:  Regional Drilling Engineer	Date <u>1/10/95</u>	

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

Archaeological Report submitted by Arboles Contract Archaeology Technical Report #661 dated 11-23-94  
Threatened and Endangered Species Report submitted by Ecosphere dated 11-25-94  
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

Form C-1  
 Revised February 21, 19  
 Instructions on ba  
 Submit to Appropriate District Offi  
 State Lease - 4 Copy  
 Fee Lease - 3 Copy

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name	
		71599		Basin Dakota	
4 Property Code		5 Property Name			6 Well Number
6886		Canyon Largo Unit			427
7 OGRID No.		8 Operator Name			9 Elevation
14538		Meridian Oil Inc.			6408'

10 Surface Location

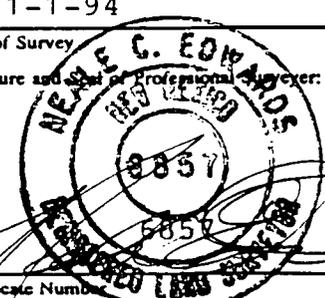
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	11	25 N	7 W		900	SOUTH	2215	WEST	R.A.

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
W/320			

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

16 5230.50 SF-078881 2215' 900' 5194.20'	5318.28 REVISED LOCATION <i>Standard          640 acre          Section</i>	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Peggy Bradfield</i> Signature Peggy Bradfield Printed Name Regulatory Affairs Title 1-6-95 Date
	18 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 belief. 11-1-94 Date of Survey Signature and Seal of Professional Surveyor: 	5191.56 615
	Certificate Number	

OPERATIONS PLAN

Well Name: Canyon Largo Unit #427  
Location: 900'FSL, 2215'FWL Section 11, T-25-N, R-7-W  
 Rio Arriba County, New Mexico  
 Latitude 36° 24' 38", Longitude 107° 32' 41"  
Formation: Basin Dakota  
Elevation: 6408'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	Nacimiento	1580'	
Ojo Alamo	1580'	1730'	aquifer
Kirtland	1730'	2210'	
Fruitland	2210'	2310'	gas
Pictured Cliffs	2310'	2400'	gas
Lewis	2400'	3140'	
Chacra	3140'	3840'	
Massive Cliff House	3840'	3930'	
Menefee	3930'	4550'	
Massive Pt. Lookout	4550'	4830'	gas
Mancos	4830'	5650'	
Gallup	5650'	6515'	gas & oil
Greenhorn	6515'	6600'	gas & oil
Graneros	6600'	6620'	
Dakota	6620'	6840'	gas
Burro Canyon/Encinal	6840'	6845'	gas
Morrison	6845'		salt water
<b>Total Depth</b>		<b>6960'</b>	

Logging Program:

Mud Logs/Coring/DST -  
 Mud logs - 5600' to TD.  
 Coring - none  
 DST - none  
 Electric logs - DIL/SP/GR; Density/Neut/GR; Microlog-GR;

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 320'	Spud	8.4-8.9	40-50	no control
320-6960'	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' - 320'	8 5/8"	24.0#	K-55
7 7/8"	0' - 6960'	5 1/2"	17.0#	K-55

Tubing Program:

0' - 6960'      2 3/8"      4.7#      J-55 EUE

BOP Specifications, Wellhead and Tests:**Surface to TD -**

11" 2000 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, 2000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**

6" 2000 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, 2000 psi minimum choke manifold (Reference Figure #3).

**Wellhead -**

8 5/8" x 5 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/336 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (396 cu.ft. of slurry, 200% 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 - 5 1/2"**

First Stage: Cement to circulate to stage tool @ 4830'. Lead w/317 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: 646 cu.ft. Excess slurry 75%.)

Second Stage: Cement to circulate to stage tool @ 2110'. Lead w/418 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: 825 cu.ft. Excess slurry: 75%.)

Third Stage: Cement to circulate to surface. Cement w/365 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: 731 cu.ft. Excess slurry: 100%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-three centralizers - one every 4th joint to the base of the Ojo Alamo @ 1730'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1730'. 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.

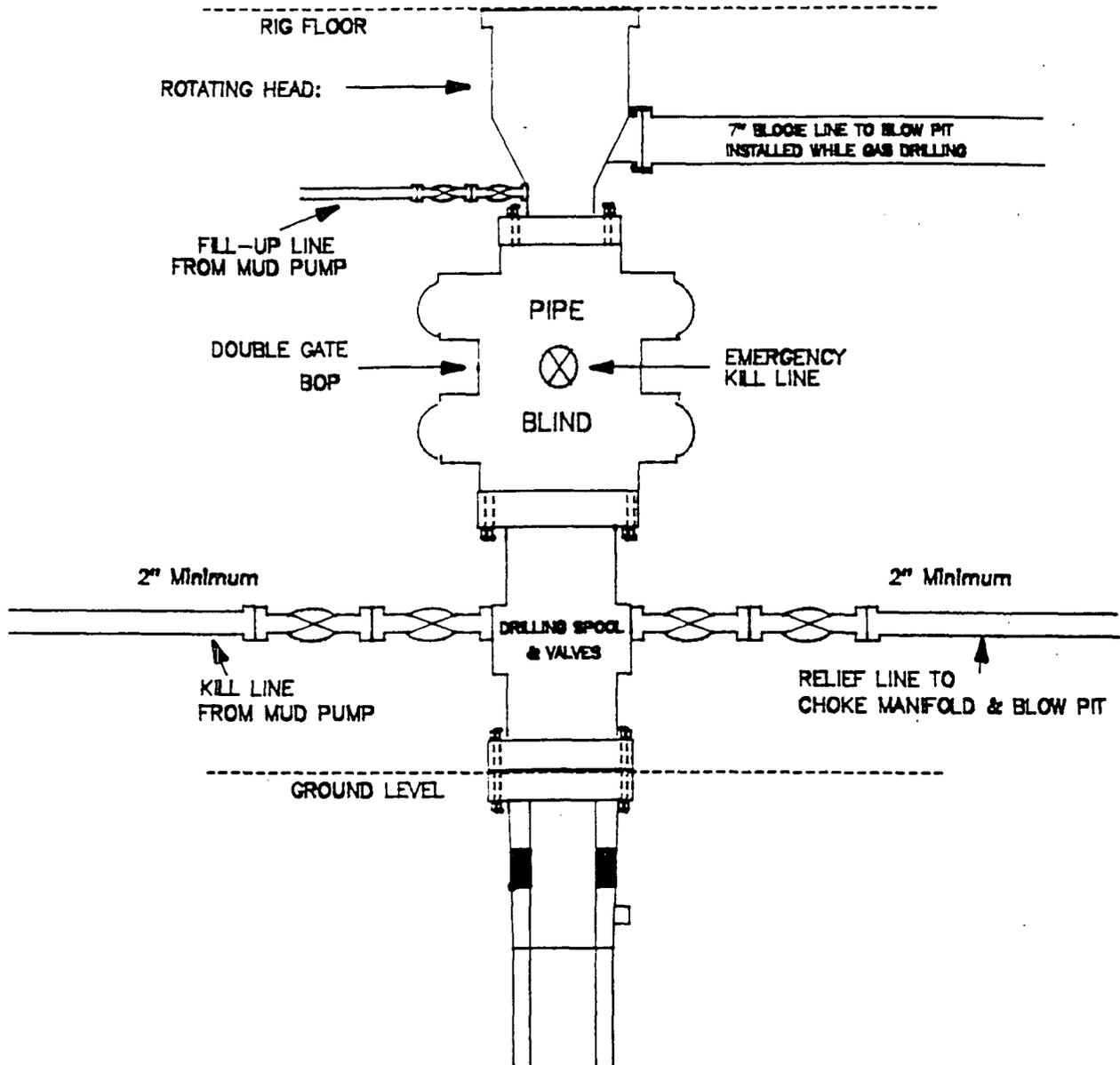
**Additional Information:**

- The Dakota formation will be completed.
- 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 west half of the Section is dedicated to this well.
- This gas is dedicated.
- New casing will be utilized.
- Anticipated pore pressure for Pictured Cliffs and Fruitland Coal is 300 psi.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

# MERIDIAN OIL INC.

BOP Configuration

2M psi SYSTEM

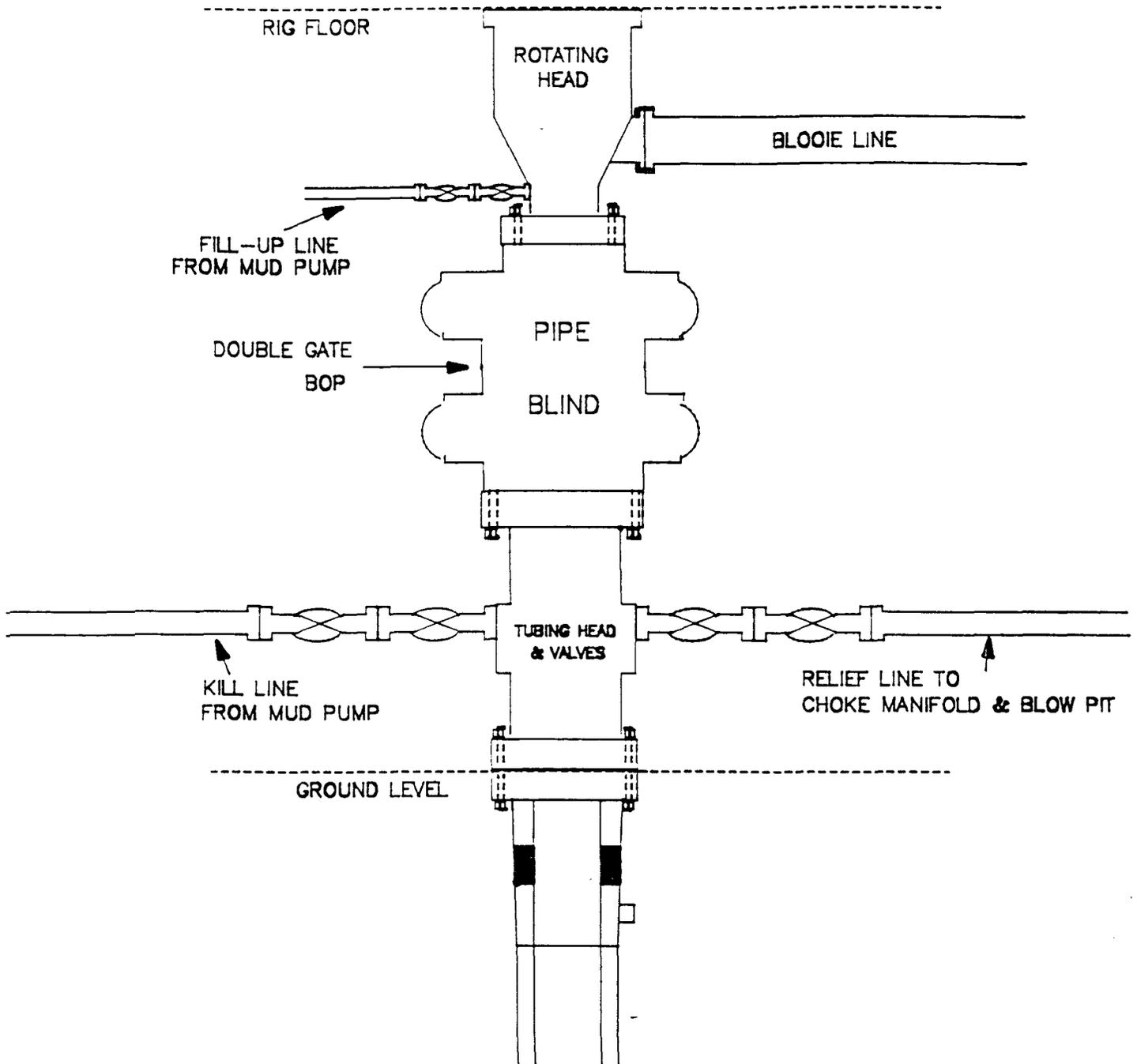


11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

# MERIDIAN OIL INC.

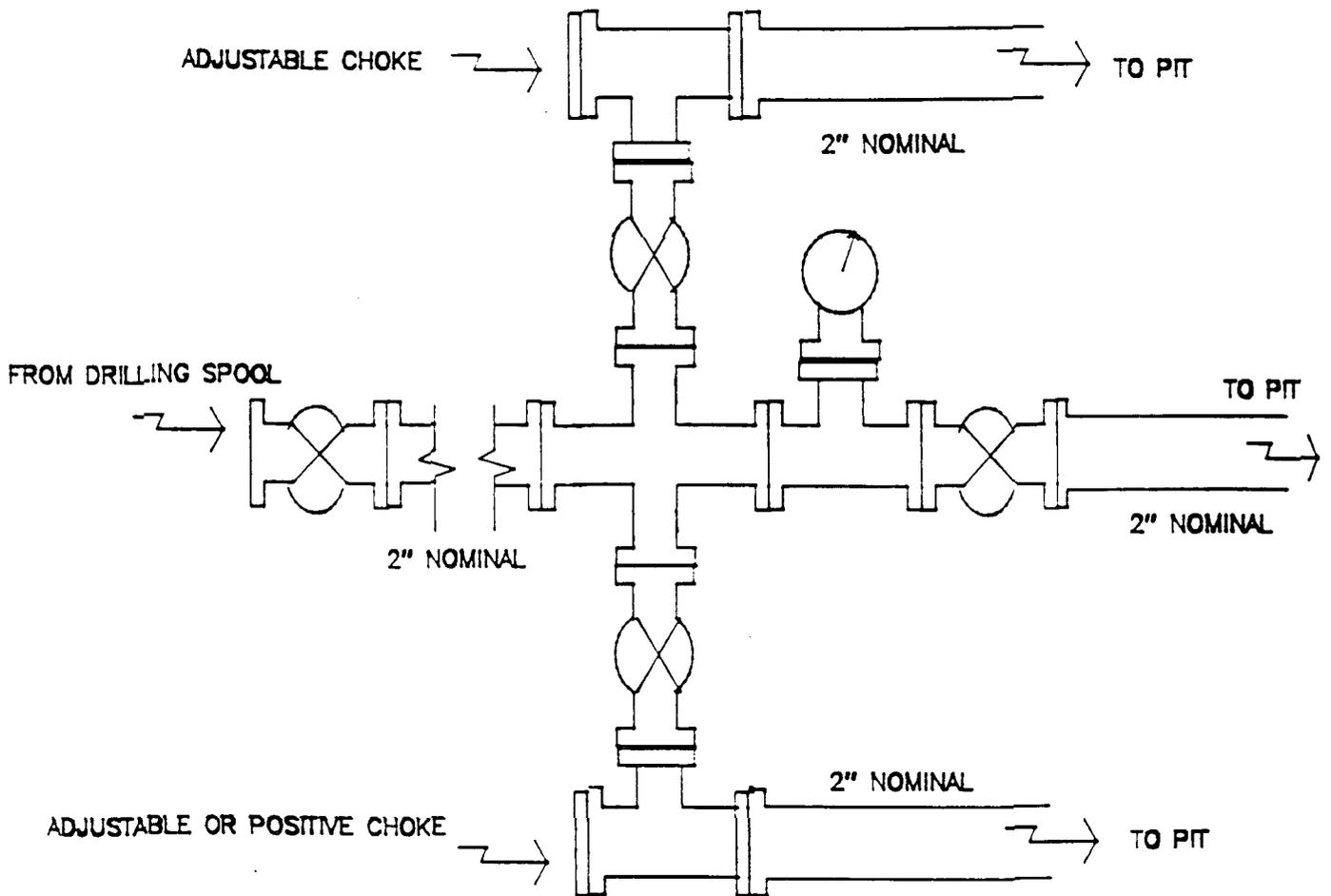
BOP Configuration  
2M psi SYSTEM



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**  
Canyon Largo Unit #427  
Multi-Point Surface Use Plan

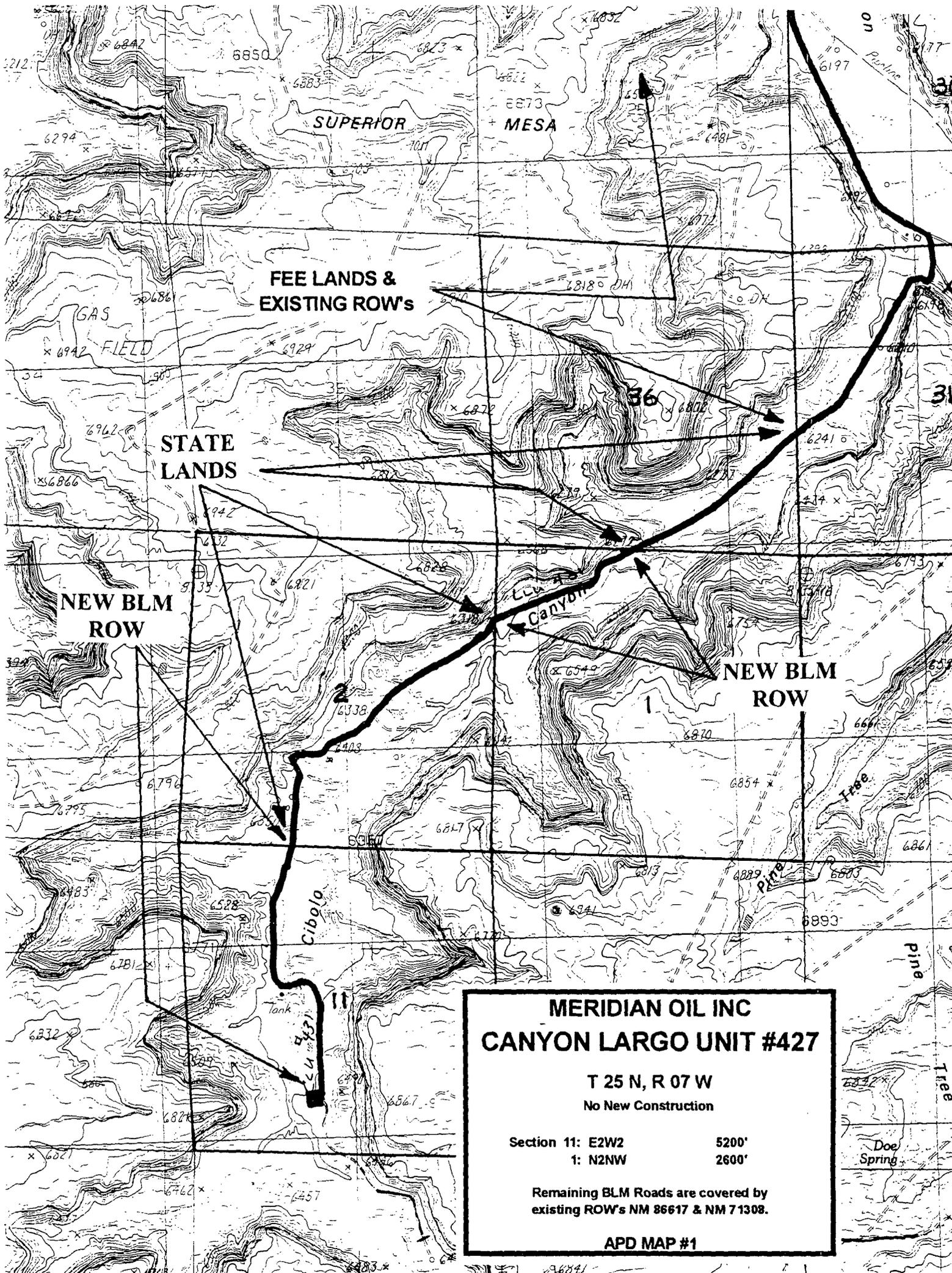
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. None required. xi
3. 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 Superior Water Hole #1 located NW Section 4, T-25-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

1/10/95  
Date

JWC:pb



**FEE LANDS & EXISTING ROW's**

**STATE LANDS**

**NEW BLM ROW**

**NEW BLM ROW**

**MERIDIAN OIL INC  
CANYON LARGO UNIT #427**

**T 25 N, R 07 W  
No New Construction**

**Section 11: E2W2      5200'  
1: N2NW              2600'**

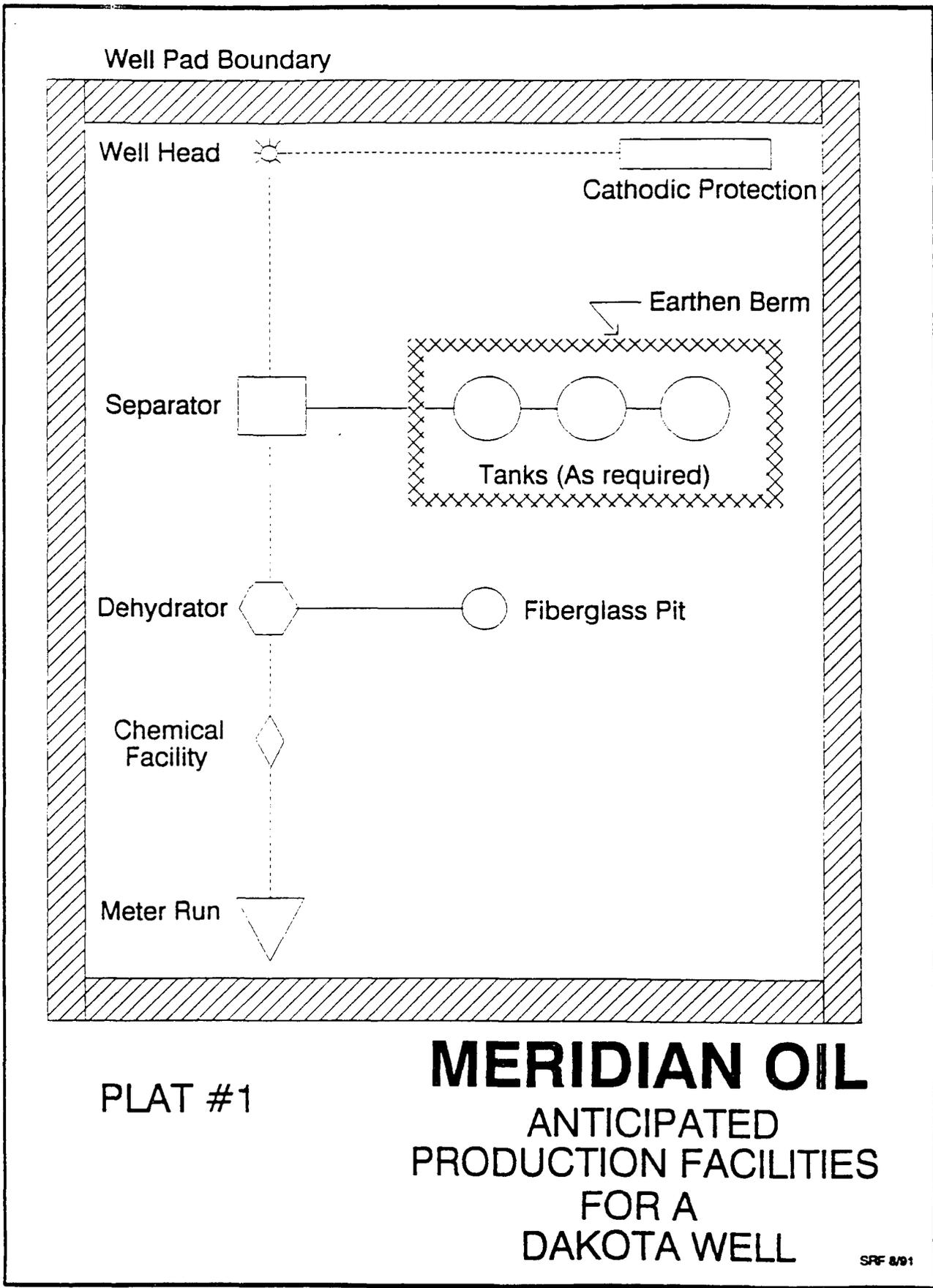
**Remaining BLM Roads are covered by  
existing ROW's NM 86617 & NM 71308.**

**APD MAP #1**

pine  
Tree

Doe  
Spring





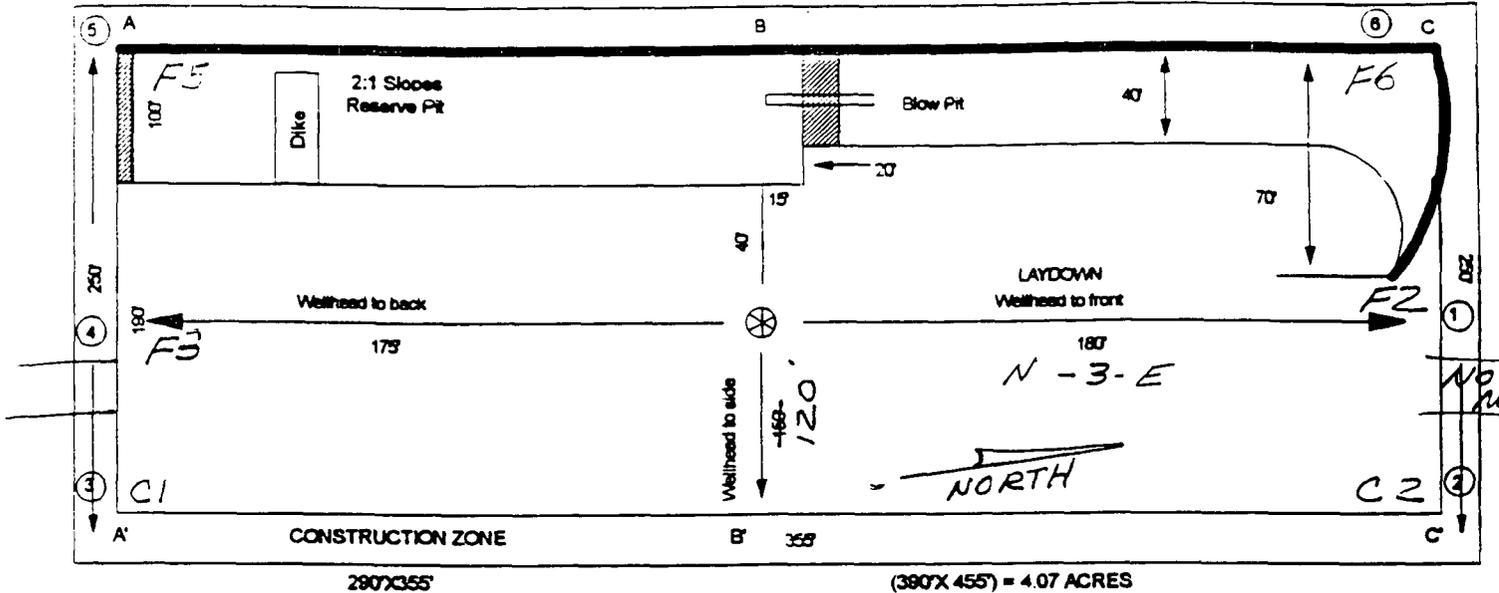
# MERIDIAN OIL

PLAT #2

FC HIGH POTENTIAL

ALL MV / ALL DK

NAME:	MOI Canyon Largo Unit # 427		
FOOTAGE:	900' FSL	2215' FWL	
SEC	11	TWN 25	N.R. 7 W NMPM
CO:	Rio Arriba	ST:	New Mexico
ELEVATION:	6408'	DATE:	11-1-94

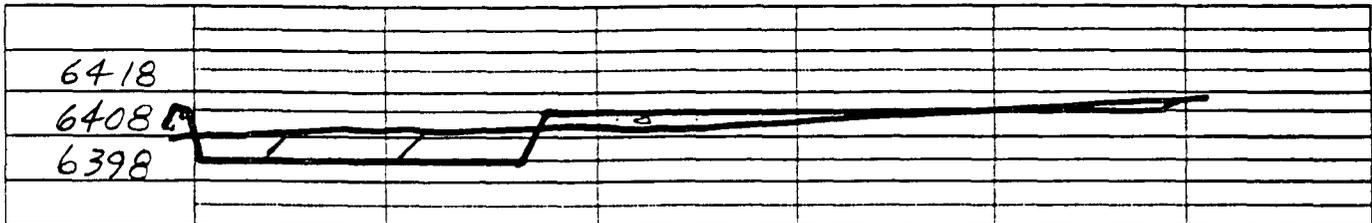


Reserve Pit Dike : to be 8' above Deep side; ( overflow - 3' wide and 1' above shallow side.)

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

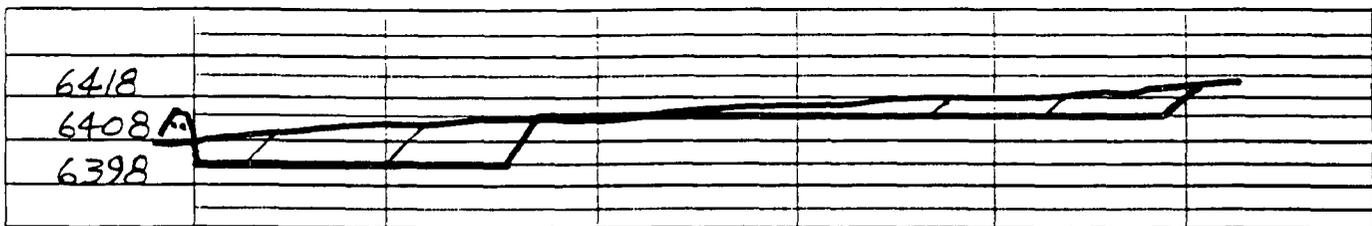
A-A'

C/L



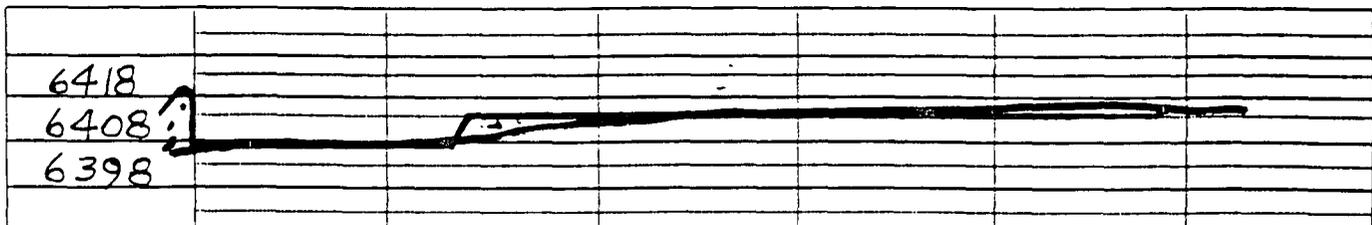
B-B'

C/L



C-C'

C/L



Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least 2 working days prior to construction.

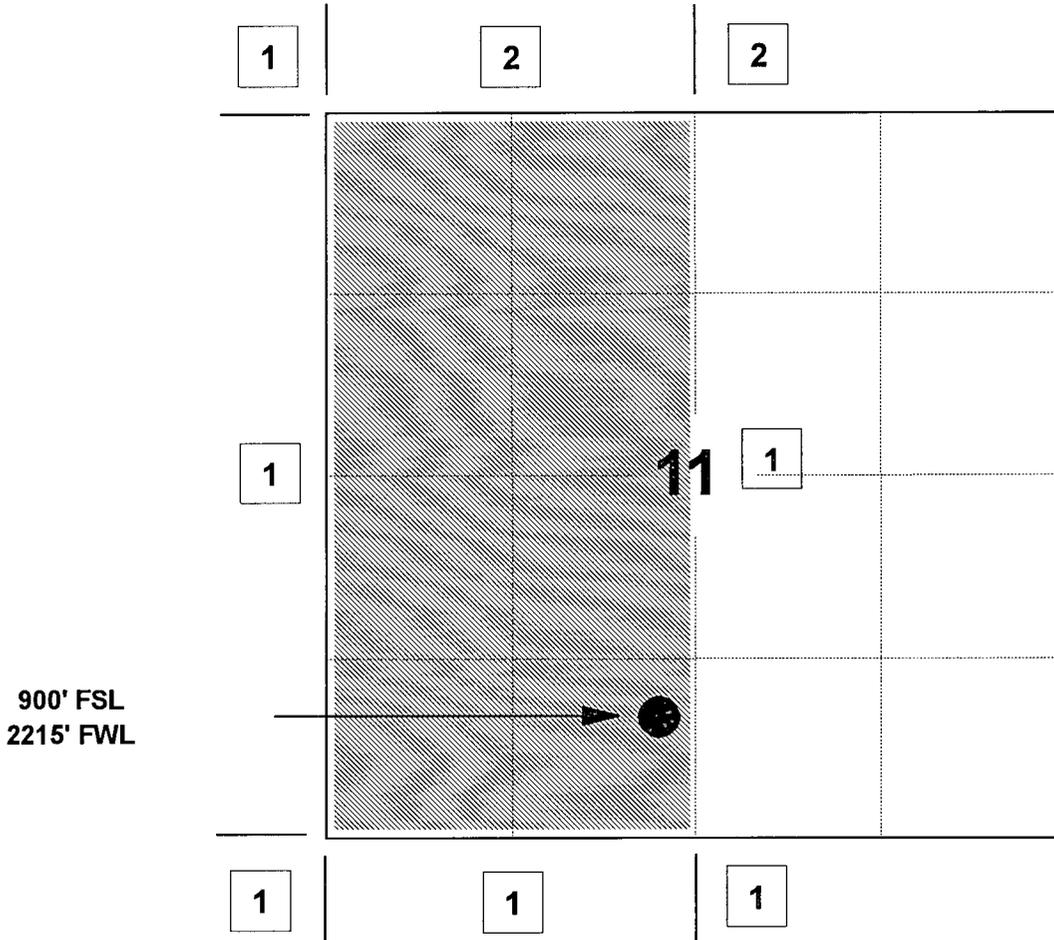
# MERIDIAN OIL INC

## CANYON LARGO UNIT #427

### OFFSET OPERATOR \ OWNER PLAT

#### Unorthodox Dakota Formation Well

Township 25 North, Range 7 West



1) Meridian Oil Inc

2) Norman L. Gilbreath

PO Box 208, Aztec, NM 87410

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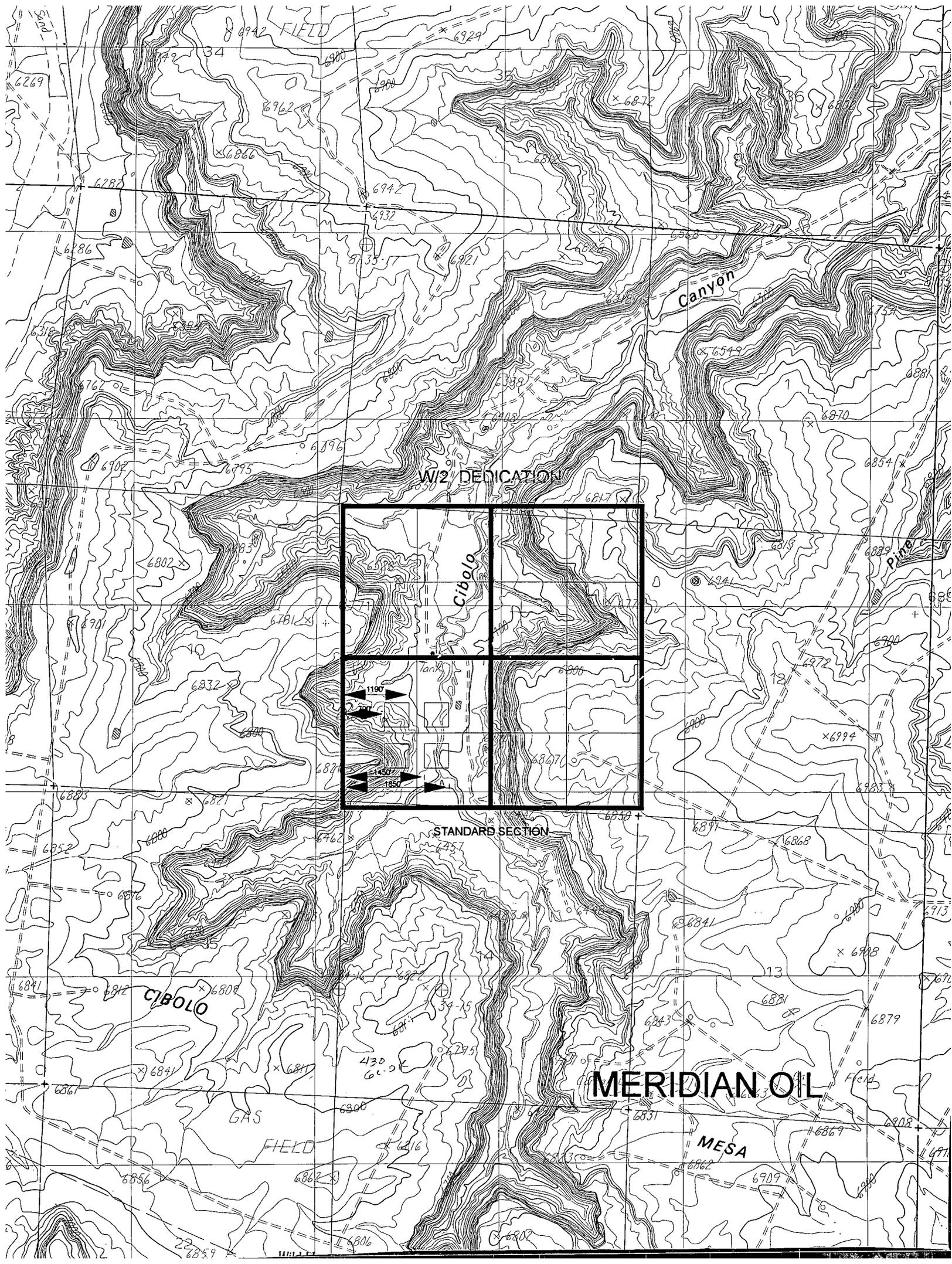
Re: Meridian Oil Inc. Canyon Largo Unit #427  
900'FSL, 2215'FWL Section 11, T-25-N, R-7-W - Rio Arriba County, New Mexico  
API # 30-039-not yet assigned

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.

Mr. Norman L. Gilbreath  
PO Box 208  
Aztec, NM 87410

A handwritten signature in black ink, appearing to read "Peggy A. Bradfield". The signature is written in a cursive, flowing style with a large initial "P".

Peggy A. Bradfield  
Regulatory/Compliance Representative



FIELD

Canyon

W/2 DEDICATION

STANDARD SECTION

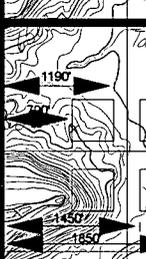
CIBOLO

GAS FIELD

MERIDIAN OIL

MESA

Cibola



Tank

Sand

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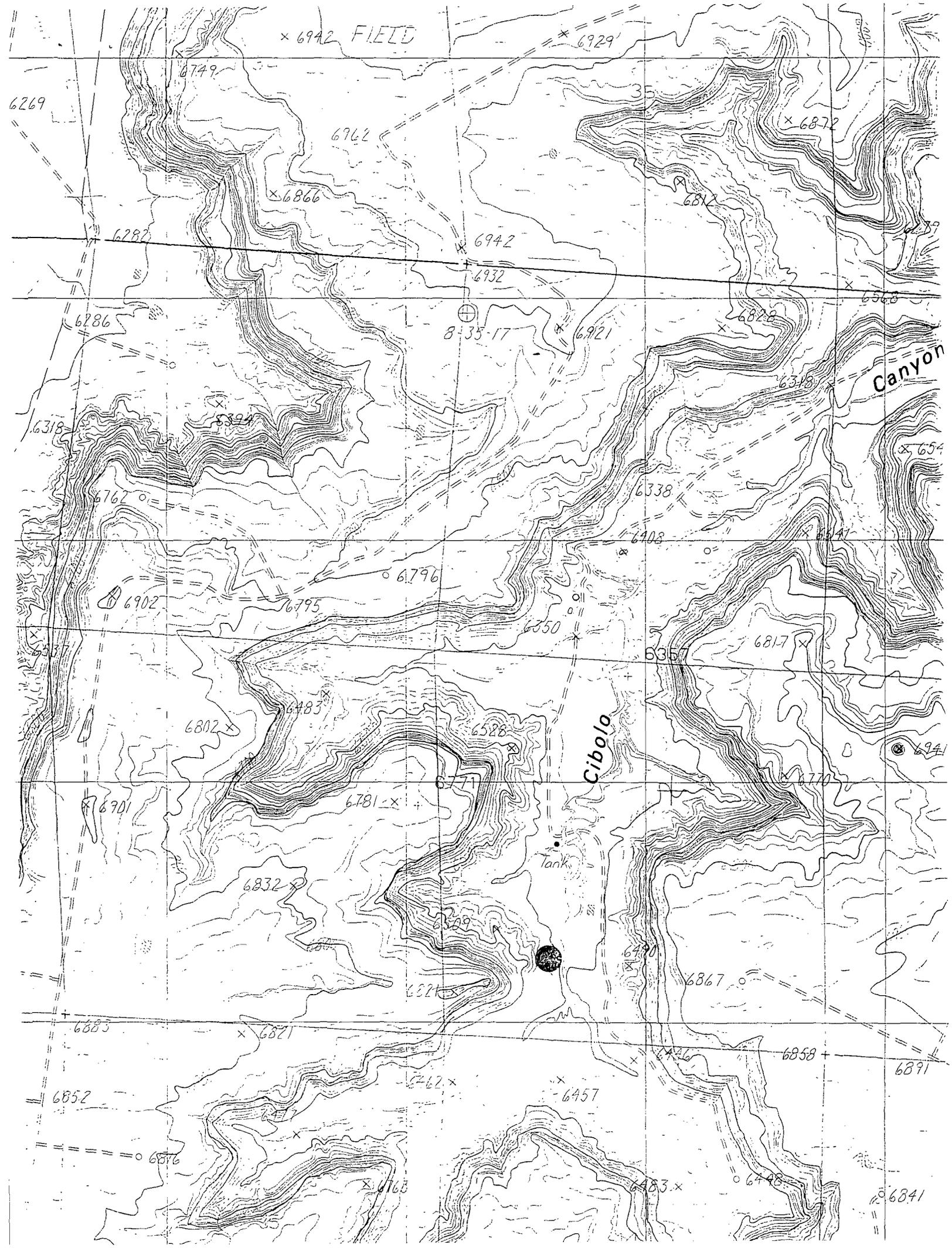
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x 6942 FIELD

x 6929

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6762

x 6872

x 6866

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8-35-17

x 6921

x 6828

6286

x 6894

Canyon

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6338

6762

6408

6796

x 6841

6902

6795

6350

6357

6817

6802

x 6483

6522

Cibolo

6701

6781

6771

Tank

6832

6569

6490

6867

6883

x 6821

6858

6891

6852

6462

x 6457

6876

x 6768

6483

6448

6841



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Farmington District Office  
1235 La Plata Highway  
Farmington, New Mexico 87401

IN REPLY REFER TO:  
3162.3-1 (07439)  
SF-078881

DEC 9 1994

Meridian Oil Incorporated  
Attention: Chuck Smith  
P.O. Box 4289  
Farmington, NM 87499

Dear Mr. Smith:

This is in reference to your application for permit to drill for the Canyon Largo Unit #427 well, located 925' FSL, 1810' FWL, Sec. 11, T. 25 N., R. 7 W., lease no. SF-078881. After working to find a suitable location within the windows established by the New Mexico Oil Conservation Commission (NMOCC), we suggest you submit for a non-standard location. A suitable location and access road was not found because of topographical constraints and damage to surface resources with the proposed construction of the pad and access road. The proposed pad was located in a flat, grassy area in the bottom of a narrow canyon. The edge of the proposed pad was located immediately adjacent to a large wash creating a concern for potential erosion and the possible future loss of the pad. In addition, the proposed location would have disturbed prime grazing resources available in the narrow canyon. Other potential locations would have increased the environmental surface damage, damage to existing range improvements, or damage to an archeological site. A location approximately 400 feet to the east of the originally staked location would be most suitable. This location moves further away from the wash, cuts down on the disturbance of available grazing resources and lessens the area of new disturbance by incorporating an existing road into the pad.

In the past it has been discussed that non-standard locations would probably be proposed more frequently as the more desirable locations are developed. It is our desire to find the best possible locations for new wells and access roads being proposed with minimal environmental impacts. Therefore we will be glad to support your non-standard proposal for the Canyon Largo Unit #427 to the NMOCC.

If there is any further way in which we can be of assistance, please contact Jackie Neckels of the Environmental Compliance Staff at (505) 599-6323.

Sincerely,

Ilyse K. Gold  
Chief, Branch of Lands, Cultural,  
Recreation, and Environmental Compliance

## **Mike Stogner**

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**From:** Ernie Busch  
**To:** Mike Stogner  
**Subject:** MERIDIAN OIL INC (NSL)  
**Date:** Fri, Feb 24, 1995 11:04AM  
**Priority:** High

CANYON LARGO UNIT #427  
900' FSL; 2215' FWL  
N-11-25N-07W  
RECOMMEND: APPROVAL