



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

March 24, 1994

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

Attention: Peggy Bradfield

Administrative Order NSL-3373

Dear Ms. Bradfield:

Reference is made to your application dated March 2, 1994, for a non-standard oil well location for your Cullins Federal Well No. 6 to be drilled 1510 feet from the South line and 2390 feet from the East line (Unit J) of Section 4, Township 24 North, Range 3 West, NMPM, West Lindrith Gallup-Dakota Oil Pool, Rio Arriba County, New Mexico. The SE/4 of said Section 4 shall be dedicated to the well forming a standard 160-acre oil spacing and proration unit for said pool.

By the authority granted me under the provisions of Rule 5 of the Special Rules and Regulations for the West Lindrith Gallup-Dakota Oil Pool, as promulgated by Division Order No R-4314-A, as amended, the above-described unorthodox oil well location is hereby approved.

Sincerely,

William J. LeMay
Director

WJL/MES/amg

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

RECEIVED
MAR 25 1994
OIL CON. DIV.
DIST. 3

Ernie Busch

From: Ernie Busch
To: Mike Stogner
Subject: MERIDIAN OIL INC. (NSL)
Date: Thursday, April 07, 1994 1:53PM
Priority: High

WELL NAME: CULLINS FEDERAL #6
LOCATION: J-4-24N-03W
FOOTAGE: 1510' FSL; 2390' FEL
RECOMMEND: APPROVAL

CMD : 066C101
ONGARD
03/26/94 11:47:36
OGOMEV -EMB4

OGRID Idn : 778 API Well No: 30 45 11080 APD Status(A/C/P): A
Opr Name, Addr : AMOCO PRODUCTION CO
PO BOX 21178

Prop Idn: 1180 USSelman GAS COM

U/L Sec Township Range Lot Idn North/South East/West
Surface Locn : 2 4 31N 10W FTG 1190 F N FTG 1700 F E
OCD U/L : B API County : 45

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): G Cable/Rotary (C/R) : R
Lease typ(F/S/P/N/J/U/I) : P Ground Level Elevation : 5839
State Lease No: Multiple Comp (Y/N) : N
Prpsd Depth : 5300 Prpsd Frmtn : BLANCO MESAVERDE

M0015:Table update is successful.
PF01 HELP PF02 PF03 EXIT PF04 GOTO PF05 PF06 CONFIRM
PF07 PF08 PF09 COMMENT PF10 C102 PF11 HISTORY PF12

MERIDIAN OIL

March 2, 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. Cullins Federal #6
1510'FSL, 2390'FEL, Section 4, T-24-N, R-3-W - Rio Arriba County, New Mexico
API # 30-039-(not assigned)

Dear Mr. LeMay:

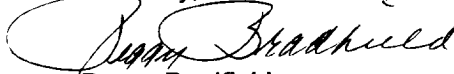
Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the West Lindrith Gallup Dakota formation. This application for the referenced location is due to terrain as shown on the topographic map and archaeology.

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 southeast dedication for the West Lindrith Gallup Dakota, 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 \$150,000.

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 Cullins Federal #6 as proposed above.

By: _____ Date: _____

xc: Mobil Producing Texas & New Mexico Inc.


RECEIVED

MAR 07 1994

OIL CON. DIV
DIST. 3

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-080472 | |
| 1b. Type of Well GAS | 6. If Indian, All. or Tribe | |
| 2. Operator MERIDIAN OIL | 7. Unit Agreement Name | |
| 3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 | 8. Farm or Lease Name Cullins Federal 9. Well Number 6 | |
| 4. Location of Well 1510' FSL, 2390' FEL Latitude 36° 20' 11", Longitude 107° 09' 39" | 10. Field, Pool, Wildcat W. Lindrith G1 Dakota 11. Sec., Twn, Rge, Mer. Sec 4, T-24-N, R-3-W NMPM | |
| 14. Distance in Miles from Nearest Town 35 miles Counselors | 12. County Rio Arriba | 13. State NM |
| 15. Distance from Proposed Location to Nearest Property or Lease Line 1510' | | |
| 16. Acres in Lease | 17. Acres Assigned to Well 160 SE/4 | |
| 18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 2000' | | |
| 19. Proposed Depth 8000' | 20. Rotary or Cable Tools Rotary | |
| 21. Elevations (DF, FT, GR, Etc.) 7057' GL | 22. Approx. Date Work will Start 2nd quarter 1994 | |
| 23. Proposed Casing and Cementing Program See Operations Plan attached | RECEIVED MAR 07 1994 OIL CON. DIV. DIST. 3 | |
| 24. Authorized by:  Regional Drilling Engineer | 2-4-94 Date | |

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

February 4, 1994

OPERATIONS PLAN

Well Name: Cullins Federal #6
Location: 1510'FSL, 2390'FEL, Section 4, T-24-N, R-3-W
 Rio Arriba County, New Mexico
Formation: West Lindrith Gallup Dakota
Elevation: 7057'GL

Formation Tops:

| | | | |
|-----------------|----------|---------------|-------|
| Surface | San Jose | Menefee | 5060' |
| Ojo Alamo | 2950' | Point Lookout | 5485' |
| Kirtland | 3035' | Mancos | 5860' |
| Fruitland | 3045' | Gallup | 6595' |
| Pictured Cliffs | 3280' | Greenhorn | 7465' |
| Lewis | 3395' | Graneros | 7520' |
| Chacra | 4170' | Dakota | 7550' |
| Cliff House | 4910' | Morrison | 7950' |
| | | Total Depth | 8000' |

Logging Program: Mud logs from 3000' to Total Depth.
 GR-DIL-SP; LDT-CNL-DIL; Microlog; MRIL

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 |
| 200-8000' | 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 - 6800' | 4 1/2" | 10.5# | K-55 |

Tubing Program:

| | | | |
|-----------|--------|------|------|
| 0 - 8000' | 2 3/8" | 4.7# | J-55 |
|-----------|--------|------|------|

Float Equipment: 8 5/8" surface casing- saw tooth guide shoe.
 Centralizers to 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. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3035'. Standard centralizers thereafter every fourth joint up to base of surface pipe.

Wellhead Equipment: 8 5/8" x 4 1/2" x 2 3/8" x 11" 3000 psi xmas tree assembly.

Cementing:

8 5/8" surface casing - cement w/210 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (250 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi/30 minutes.

February 4, 1994

Cementing, cont'd.

4 1/2" production casing -

First stage - lead w/632 sx 65/35 Class "B" Poz w/6% gel and 2% calcium chloride. Tail w/100 sx Class "B" w/2% calcium chloride (1237 cu.ft. slurry, 100% excess to circulate stage tool @ 5485') Circulate 4 hrs between stages.

Second stage - lead w/358 sx 65/35 Class "B" Poz w/6% gel and 2% calcium chloride. Tail w/100 sx Class "B" w/2% calcium chloride (752 cu.ft. slurry, 100% excess to circulate stage tool @ 3835').

Third stage - lead w/925 sx 65/35 Class "B" Poz w/6% gel and 2% calcium chloride. Tail w/100 sx Class "B" w/2% calcium chloride (1755 cu.ft. 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 hrs to verify top of cement.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). 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 to 3000 psi/15 min.

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

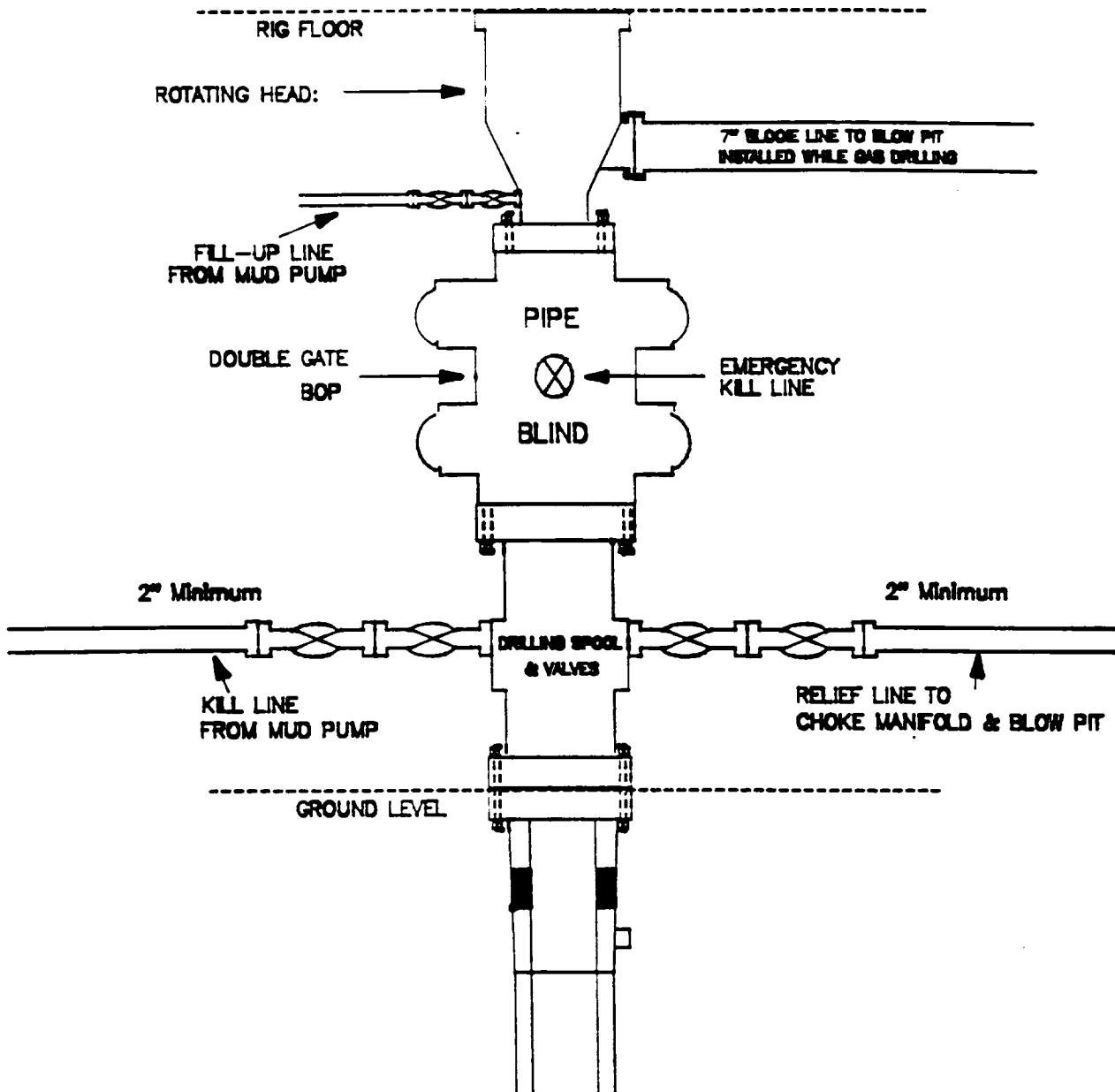
Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional information:

- * The West Lindrith Gallup Dakota formation will be completed.
- * Anticipated pore pressure for the Gallup Dakota is 860 psi.
- * This gas is dedicated.
- * The SE/4 of Section 4 is dedicated to this well.
- * New casing will be utilized.
- * Cementing contractor will provide BLM with a chronological log including the pump rate and pressure, and the slurry density and volume for all cement jobs.
- * Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

MERIDIAN OIL INC.

BOP Configuration 2M psi SYSTEM

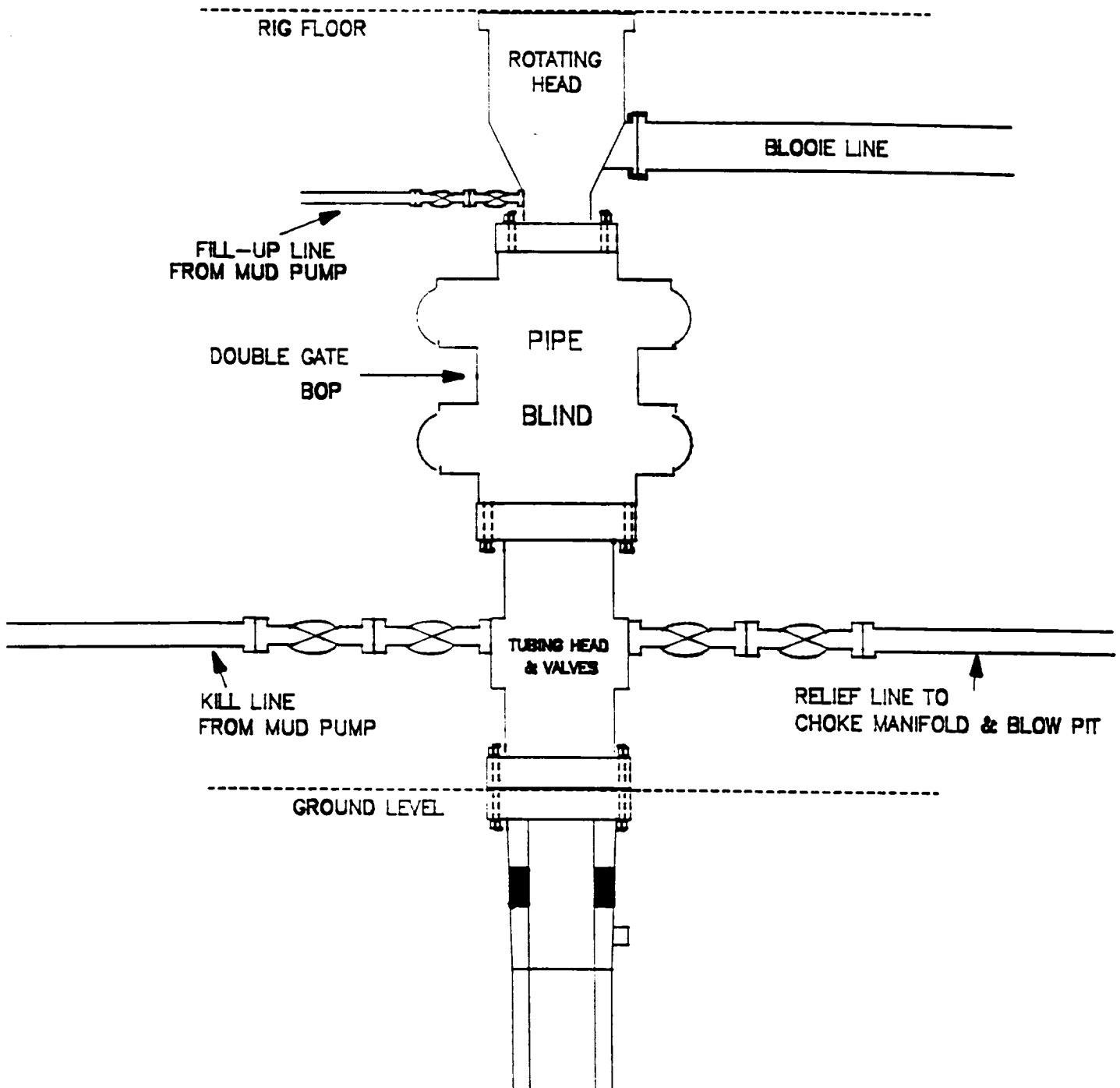


11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

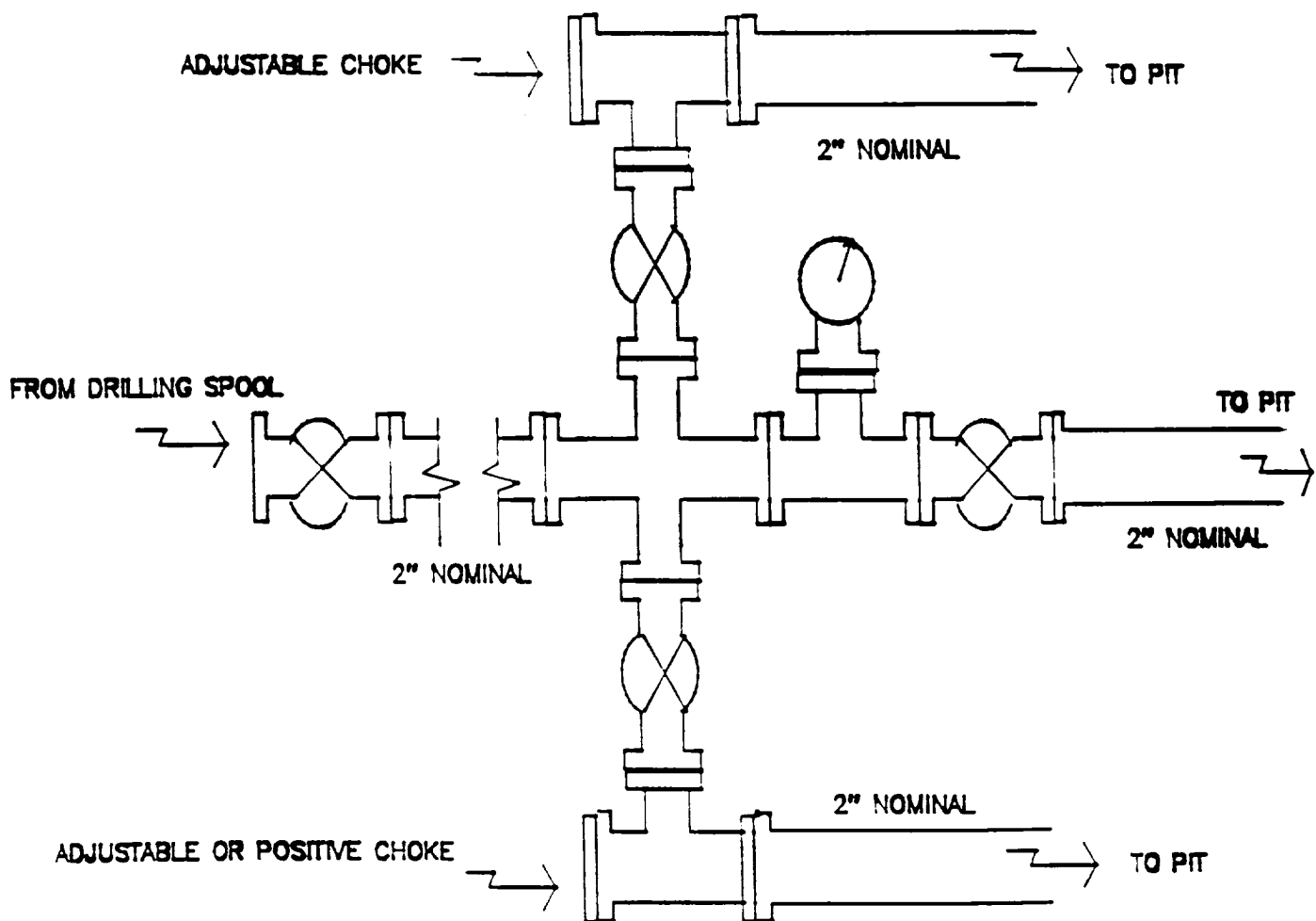
MERIDIAN OIL INC.

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.

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.

MERIDIAN OIL
Cullins Federal #6
Multi-Point Surface Use Plan

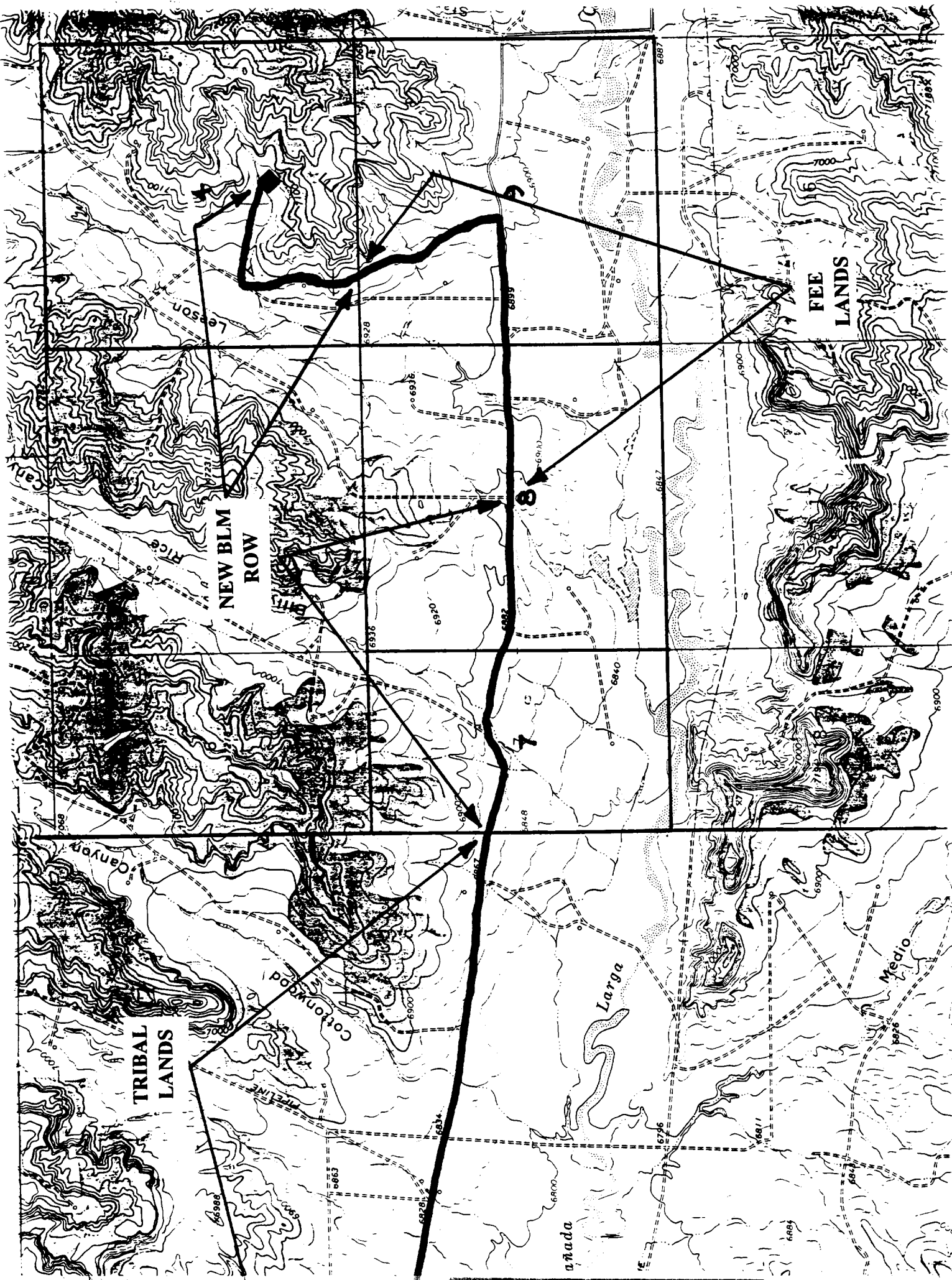
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access 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 2000' 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 Cottonwood Water Hole located SW Section 10, T-24-N, R-4-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

2/4/94
Date

JWC:pb



TRIBAL
LANDS

NEW BLM
ROW

FEE
LANDS

7

8

9

anada

Larga

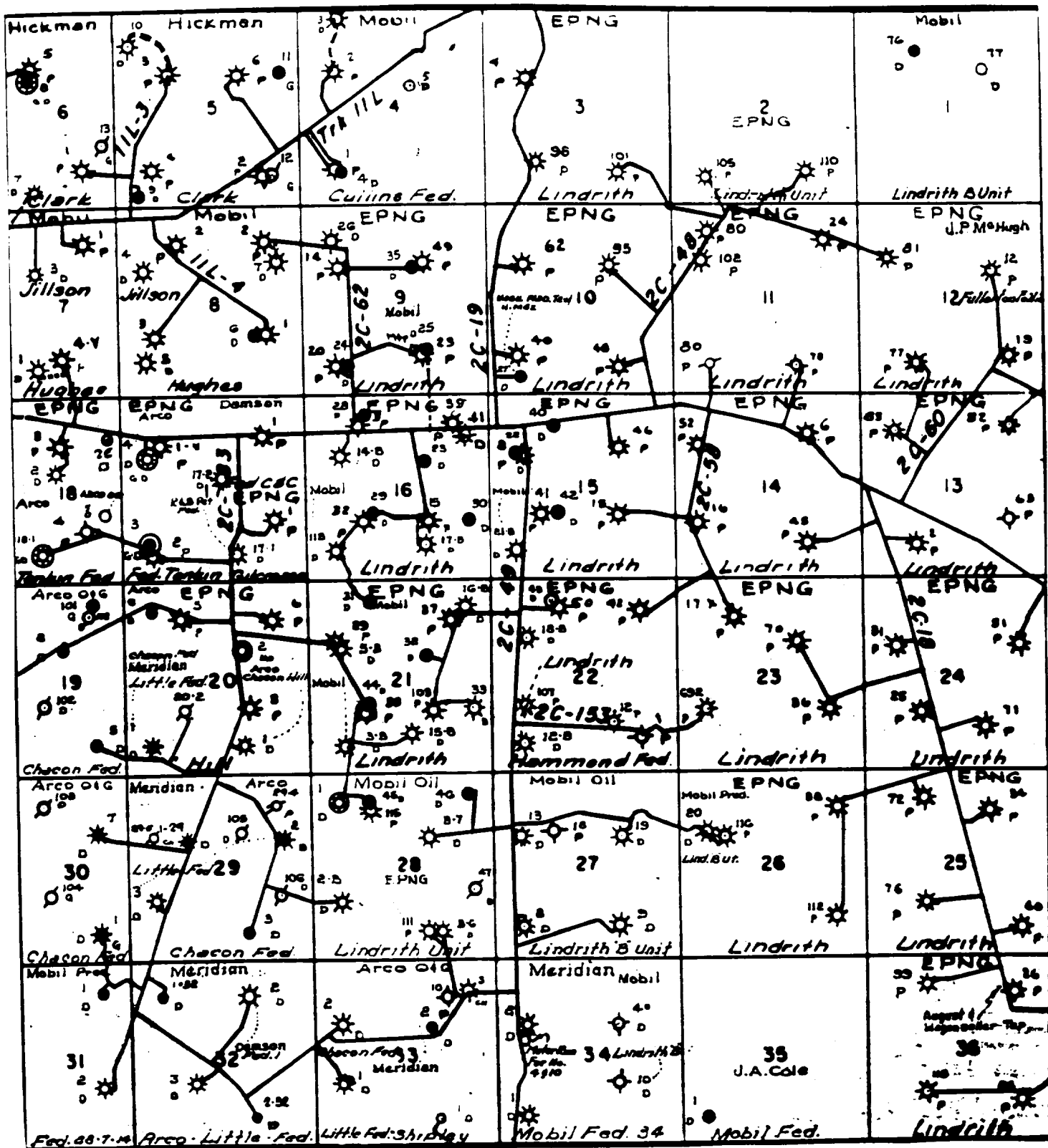
Medio

Cottonwood

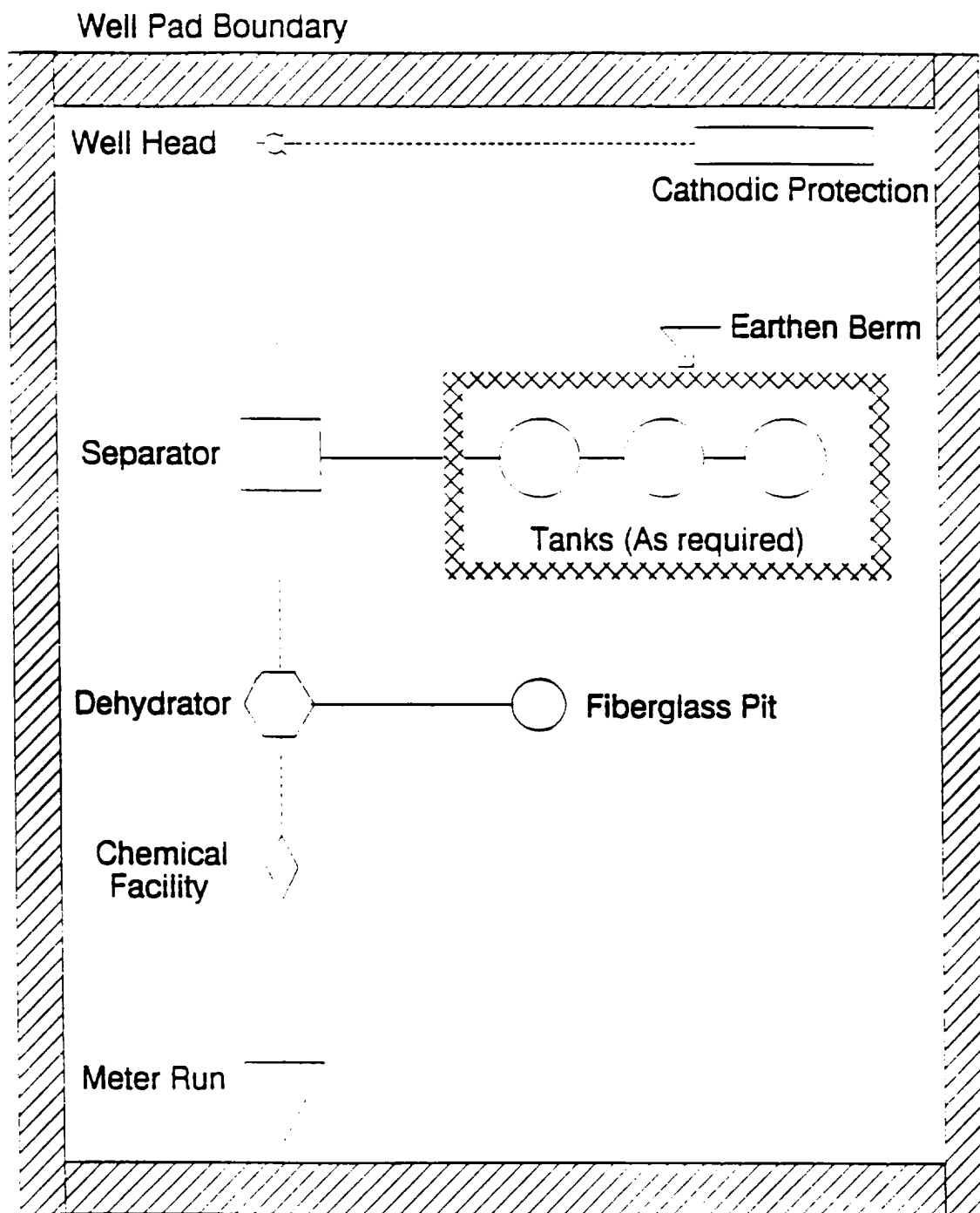
Rice

Leeson

Batts



MERIDIAN OIL INC.
 Pipeline Map
 T-24-N, R-03-W
 Rio Arriba County, New Mexico
 Cullins Federal #6
 Map #1A



PLAT #1

MERIDIAN OIL
ANTICIPATED
PRODUCTION FACILITIES
FOR A
DAKOTA WELL

ALL DK

| | | | | | | | |
|------|--|--|--|--|--|--|--|
| | | | | | | | |
| 7067 | | | | | | | |
| 7057 | | | | | | | |
| 7047 | | | | | | | |
| | | | | | | | |

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-183-
Revised 1-1-88

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1903, Hobbs, NM 88240

DISTRICT II
P.O. Drawer 60, Aztec, NM 88210

DISTRICT III
1000 Rio Santa Fe, Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

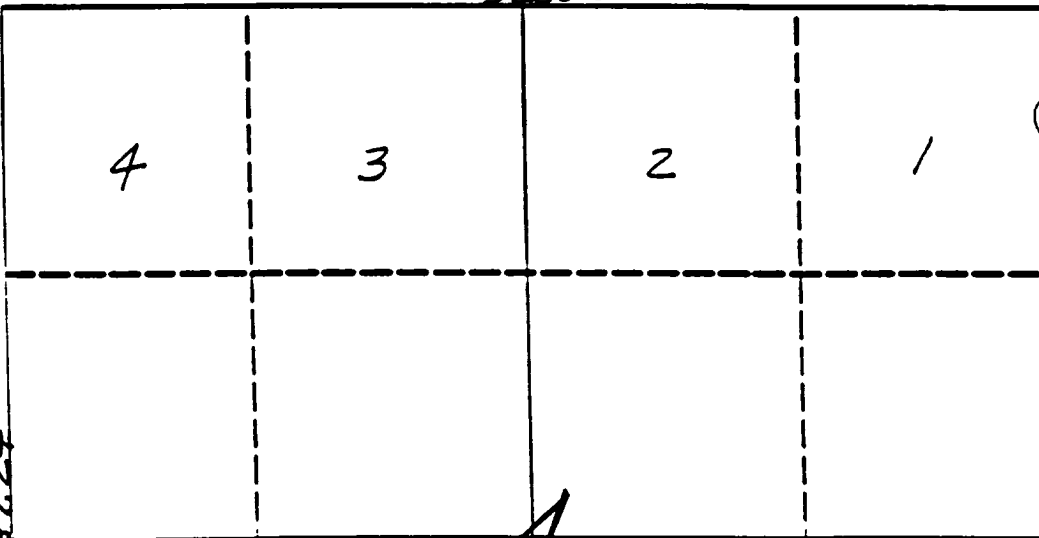
| | | | | | |
|----------|-------------------|-------|-----------------|----------|---|
| Operator | Meridian Oil Inc. | Lease | Cullins Federal | Well No. | 6 |
|----------|-------------------|-------|-----------------|----------|---|

| | | | | |
|-------------|---------|----------|--------|------------|
| Unit Letter | Section | Township | Range | County |
| J | 4 | 24 North | 3 West | Rio Arriba |

| | | | |
|----------------------------------|-------------------------|---------------|-----------------|
| Actual Foreign Location of Well: | | | |
| 1510 feet from the South | 2390 feet from the East | | |
| Ground level Elev. | Proximity Features | Foot | Distance Across |
| 7057' | Gallup Dakota | West Lindrith | 160 Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or ink on the plat below.
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).
3. If more than one lease of different ownership is dedicated to the well, have the names of all owners been consolidated by commutation, uncommuted, lease-pooling, etc.?
- ☐ Yes ☐ No If answer is "yes" type of consolidation _____
- If answer is "no" list the owners and their descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____
- No acreage will be assigned to the well until all interests have been consolidated (by commutation, uncommuted, lease-pooling, or otherwise) or until a non-consolidated well, eliminating such interest, has been approved by the Division.

5280.0



RECEIVED
MAR 07 1994
OIL CON. DIV
DIST. 3

USA SF-080472

2390'

1510'

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

2-1-94

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.

11-11-93

Date Surveyed C. EDWARDS

Neale C. Edwards

State of New Mexico
Professional Surveyor

9857

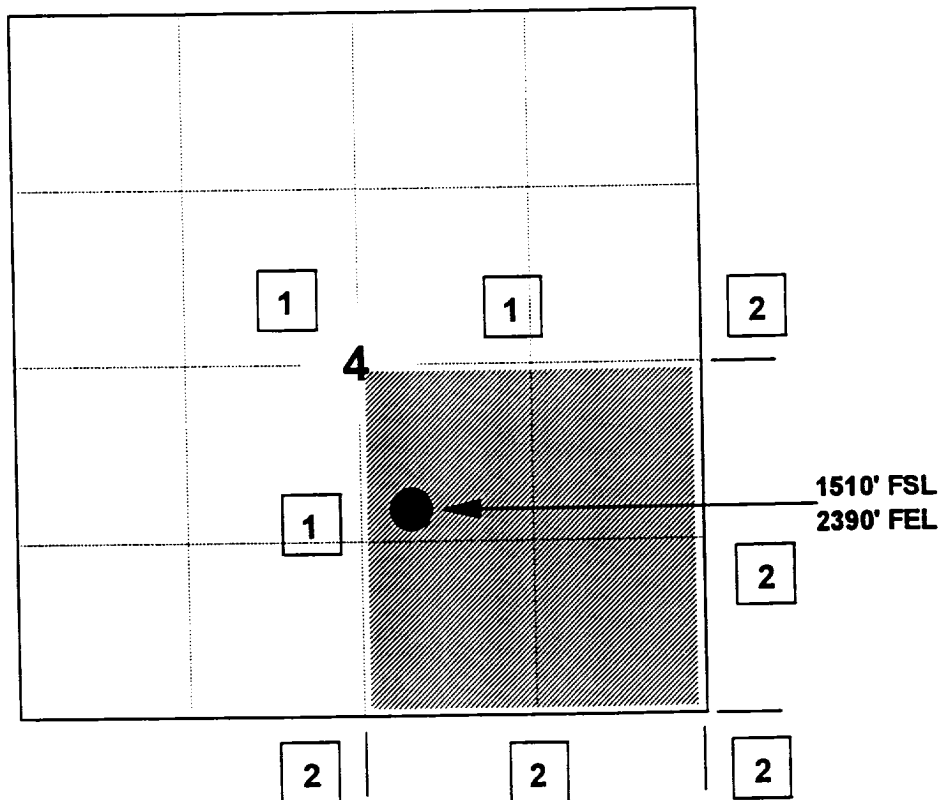
MERIDIAN OIL INC

CULLINS FEDERAL #6

OFFSET OPERATOR PLAT

Unorthodox Well Location

Township 24 North, Range 3 West



1) Meridian Oil Inc

2) Mobil Producing Texas & New Mexico, Inc

PO Box 663, Midland, TX 79701

Re: Meridian Oil Inc. Cullins Federal #6
1510'FSL, 2390'FEL, Section 4, T-24-N, R-3-W - Rio Arriba County, New Mexico
API # 30-039-(not assigned)

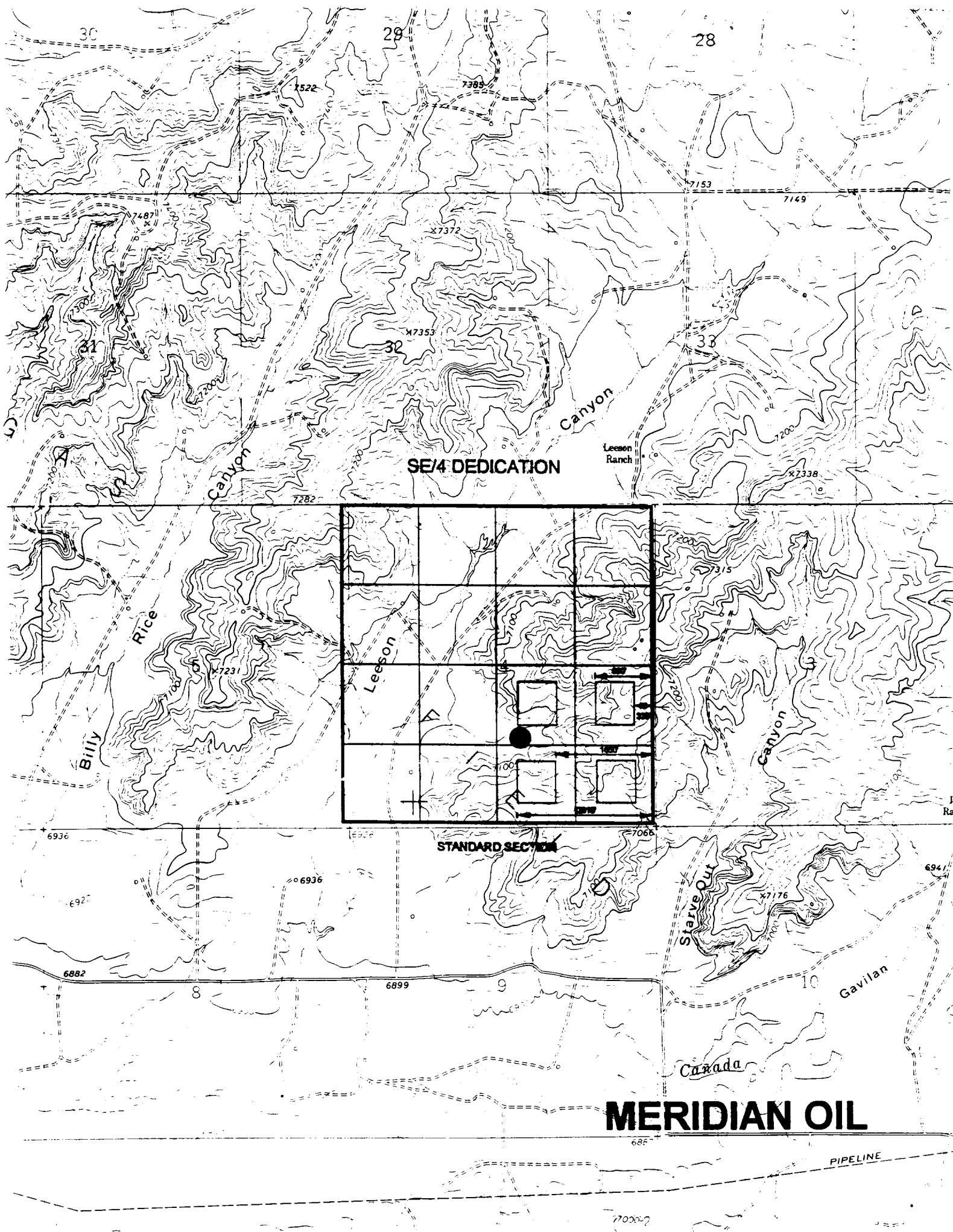
I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

Mobil Producing Texas and New Mexico Inc.
PO Box 663
Midland, TX 79701

A handwritten signature in cursive script, reading "Peggy A. Bradfield".

Peggy A. Bradfield
San Juan County
State of New Mexico

My commission expires August 17, 1996



SE/4 DEDICATION

STANDARD SECTION

MERIDIAN OIL

