

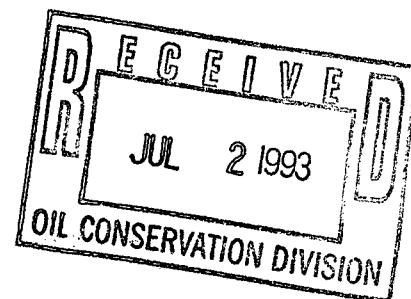
# MERIDIAN OIL

*copy forwarded  
to E. Busch  
7/20/93*

June 30, 1993

Sent Federal Express

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



Re: Meridian Oil Inc. Allison Unit #16R  
995'FSL, 2335'FWL Section 15, T-32-N, R-7-W  
San Juan County, New Mexico

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the Mesa Verde formation. This application for the referenced location is due to terrain and to utilize the existing access road.

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. Meridian Oil is the Operator of the Allison Unit.
4. 7.5 minute topographic map showing the orthodox windows for the west half dedication 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 \$200,000.

Sincerely,

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

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-078459B
1b.	Type of Well GAS	6. If Indian, All. or Tribe
2.	Operator <b>MERIDIAN OIL</b>	7. Unit Agreement Name Allison Unit
3.	Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name Allison Unit 9. Well Number 16R
4.	Location of Well 995' FSL, 2335' FWL  Latitude 36° 58' 45", Longitude 107° 33' 41"	10. Field, Pool, Wildcat Blanco Mesa Verde 11. Sec., Twn, Rge, Mer. Sec 15, T-32-N, R-7-W NMPM
14.	Distance in Miles from Nearest Town 5 miles from Tiffany, CO	12. County San Juan 13. State NM
15.	Distance from Proposed Location to Nearest Property or Lease Line 995'	
16.	Acres in Lease	17. Acres Assigned to Well 335.36 W/2
18.	Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 523'	
19.	Proposed Depth 6600'	20. Rotary or Cable Tools Rotary
21.	Elevations (DF, FT, GR, Etc.) 6860' GR	22. Approx. Date Work will Start 3rd quarter 1993
23.	Proposed Casing and Cementing Program See Operations Plan attached	
24.	Authorized by: _____ Regional Drilling Engineer Date _____	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Archaeological Report submitted 5-26-93  
Threatened and Endangered Species Report submitted 6-9-93  
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

# 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 OD, Artesia, NM 88210

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

# WELL LOCATION AND ACREAGE DEDICATION PLAT

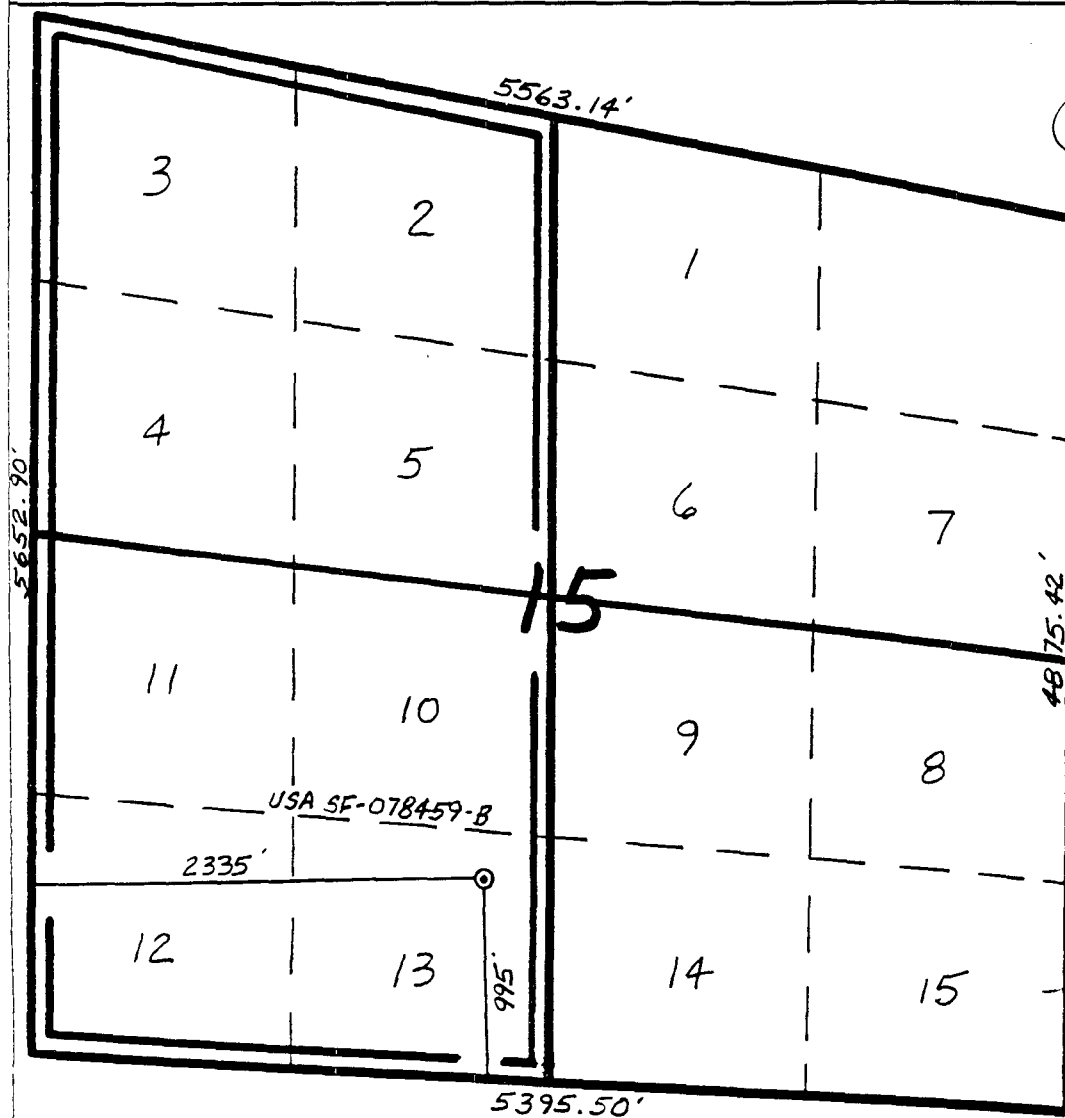
**All Distances must be from the outer boundaries of the section**

Operator Meridian Oil Inc.		Lease Allison Unit		Well No. 16R
Unit Letter N	Section 15	Township 32 North	Range 7 West NMPM	County San Juan
Actual Footage Location of Well: 995 feet from the South line and 2335 feet from the West line				
Ground level Elev. 6860'	Producing Formation Mesa Verde	Pool Blanco	Dedicated Acreage: 335.36 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks 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 interest of all owners been consolidated by communitization, 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 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.

Peggy Bradfield  
Signature  
Peggy Bradfield

Printed Name  
Regulatory Affairs

Position	Meridian Oil Inc.
----------	-------------------

Company 6-28-93

Date \_\_\_\_\_

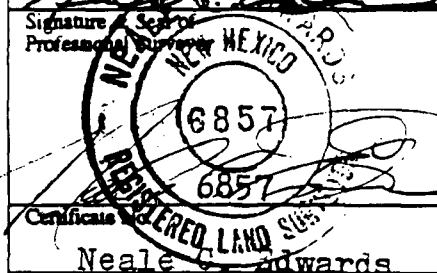
### SURVEYOR CERTIFICATION

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.

4-23-93

Date Surveyed \_\_\_\_\_

Signature \_\_\_\_\_ Seal of  
Professional Surveyor \_\_\_\_\_



Neale C. Edwards

OPERATIONS PLAN

**Well Name:** Allison Unit #16R  
**Location:** 995'FSL, 2335'FWL Section 15, T-32-N, R-7-W  
 San Juan County, New Mexico  
 Latitude 36° 58' 45", Longitude 107° 33' 41"  
**Formation:** Blanco Mesa Verde  
**Elevation:** 6860'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2607'	
Ojo Alamo	2607'	2665'	aquifer
Kirtland	2665'	3315'	
Fruitland	3315'	3619'	gas
Pictured Cliffs	3619'	3835'	gas
Lewis	3835'	4615'	
<b>Intermediate TD</b>	<b>4035'</b>		
Chacra	4615'	5438'	gas
Mesa Verde	5438'		gas
Massive Cliff House	5438'	5806'	gas
Menefee	5806'	6044'	gas
Massive Point Lookout	6044'		gas
<b>Total Depth</b>	<b>6600'</b>		

Logging Program:

Openhole Wireline Logging -  
 Surface to Intermediate TD : DIL/LDT/CNL/NGT/ML/FMS  
 Intermediate TD to Total Depth : DIL/LDT/CNL/Temp  
 Mud Logs/Coring/DST -  
 Mud logs - 4035' to Total Depth  
 DST - none

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
200-4035'	Weighted	8.4-9.1	30-60	no control
4035-6600'	Gas/Mist	n/a	n/a	n/a

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'	9 5/8"	32.3#	H-40
8 3/4"	0' - 4035'	7"	20.0#	K-55
	7" stage tool @ 2800'			
6 1/4"	3885' - 6600'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 6600'      2 3/8"      4.7#      J-55

BOP Specifications, Wellhead and Tests:

**Surface to Intermediate 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.

**Intermediate TD to Total Depth -**

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

**Surface to Total Depth -**

2" nominal, 2000 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, casing and liner top will be tested to 3000 psi for 15 minutes.

**Wellhead -**

9 5/8" x 7" 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.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

**Cementing:**

9 5/8" surface casing - cement with 180 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (212 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. 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.

**7" intermediate casing -**

First stage - lead w/185 sx of 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (445 cu.ft. of slurry, 100% excess to circulate to stage tool @ 2800'.)

Second stage - Lead w/445 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/50 sx Class "B" w/2% calcium chloride (840 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Seven bowspring centralizers spaced every other joint off bottom, with three spaced every fourth joint to the base of the Ojo Alamo at 2665'. Two turbolating centralizers at the base of the Ojo Alamo at 2665'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

#### 4 1/2" Production Liner -

Cement to circulate liner top. Lead with 225 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 100 sx Class "B" w/2% calcium chloride (513 cu.ft., 100% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom to top of the Mesa Verde or above. The liner hanger will have a rubber packoff.

- 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.

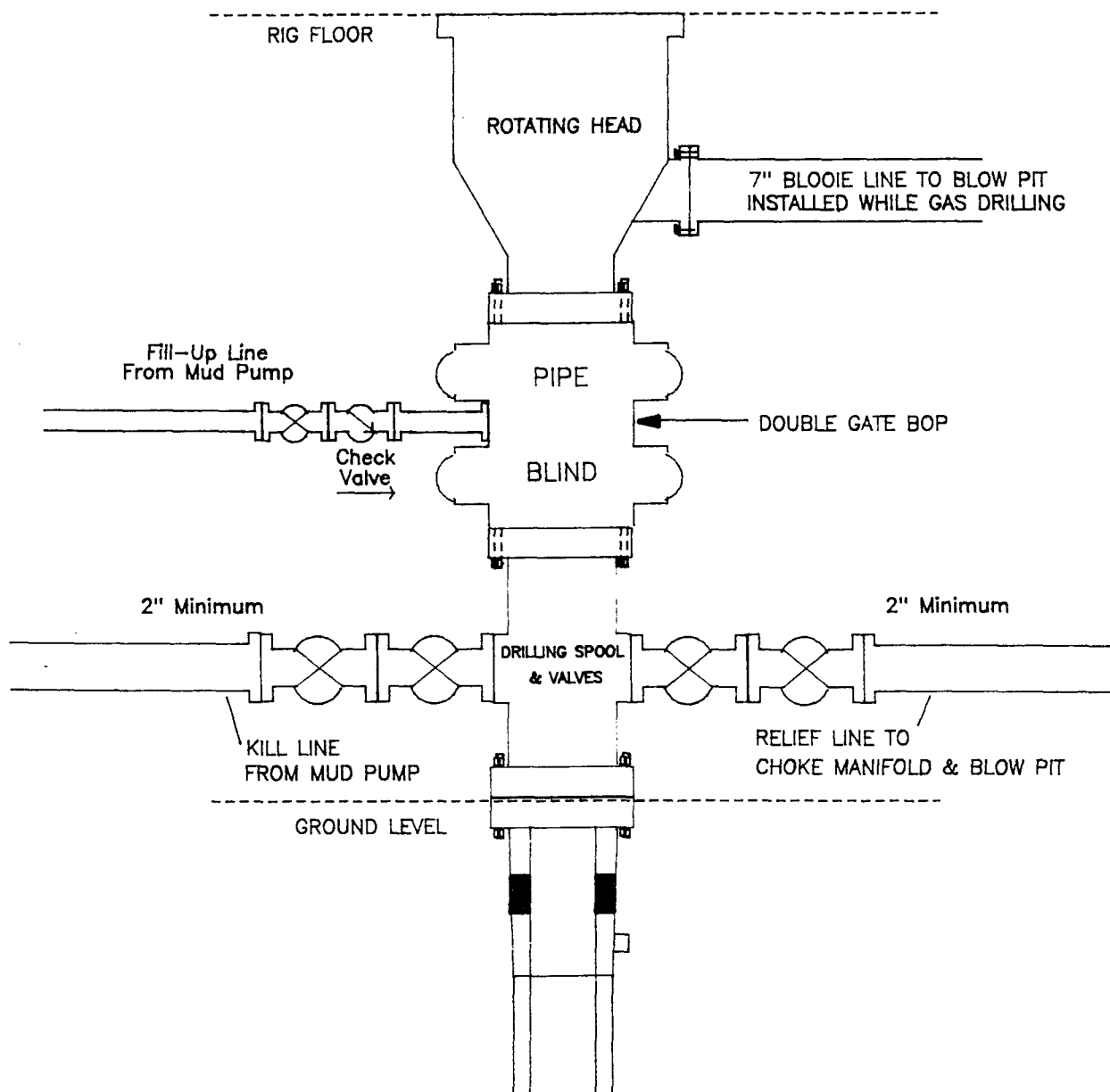
#### Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

# MERIDIAN OIL INC.

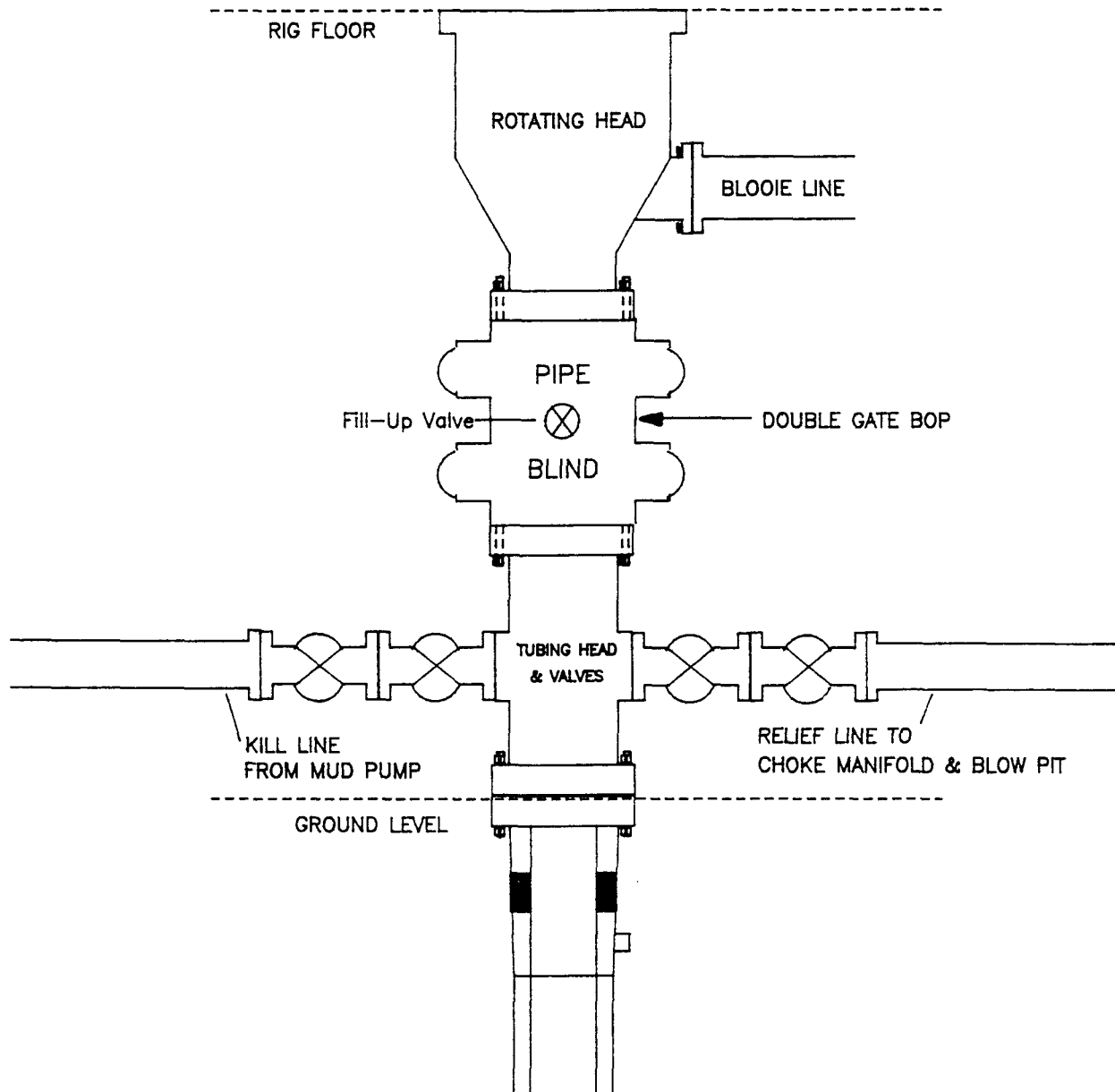
## Mesaverde Well BOP Configuration



Minimum BOP installation for a Mesaverde well from Surface to Total Depth. 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.**  
Mesaverde Well – Completion Rig  
BOP Configuration

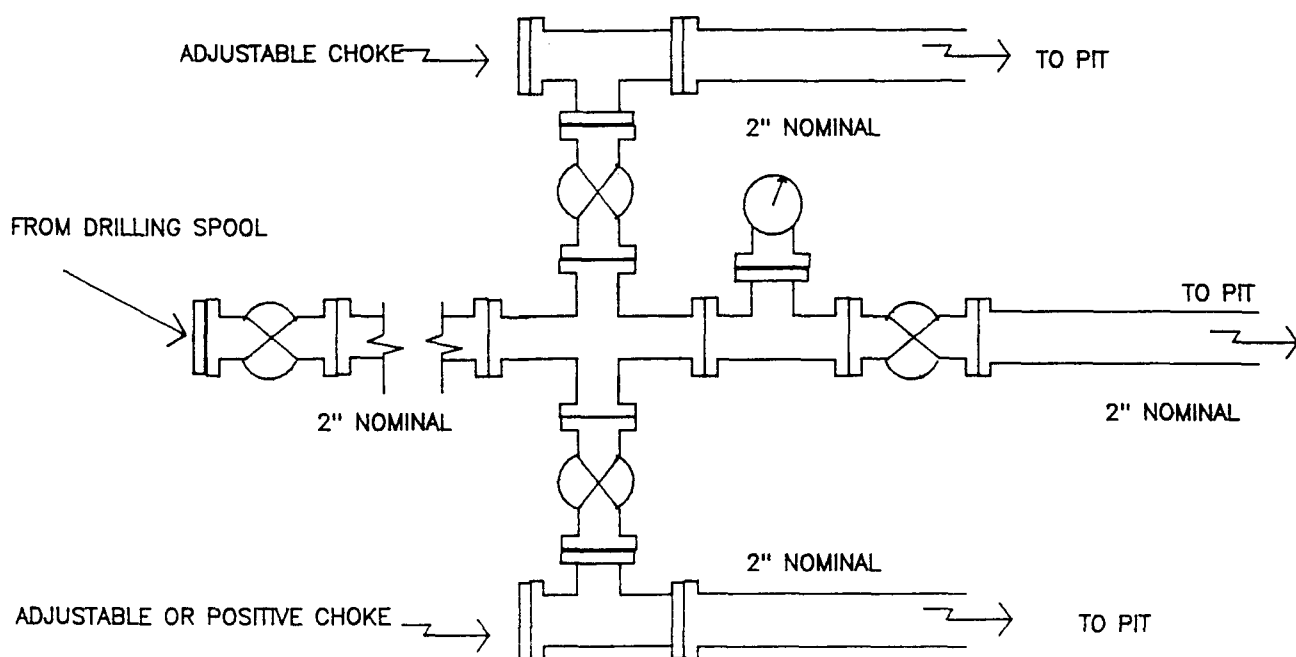


Minimum BOP installation for Completion Operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

**Figure #2**



**MERIDIAN OIL INC.**  
Mesaverde Well  
Choke Manifold Configuration



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

**Figure #3**

Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	1400 psi
Pictured Cliffs	600 psi
Mesa Verde	500 psi
- 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 Section 15 is dedicated to this well.
- This gas is dedicated.

**MERIDIAN OIL**  
Allison Unit #16R  
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 Menzel Ditch located NW Section 7, T-32-N, R-6-W.
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.

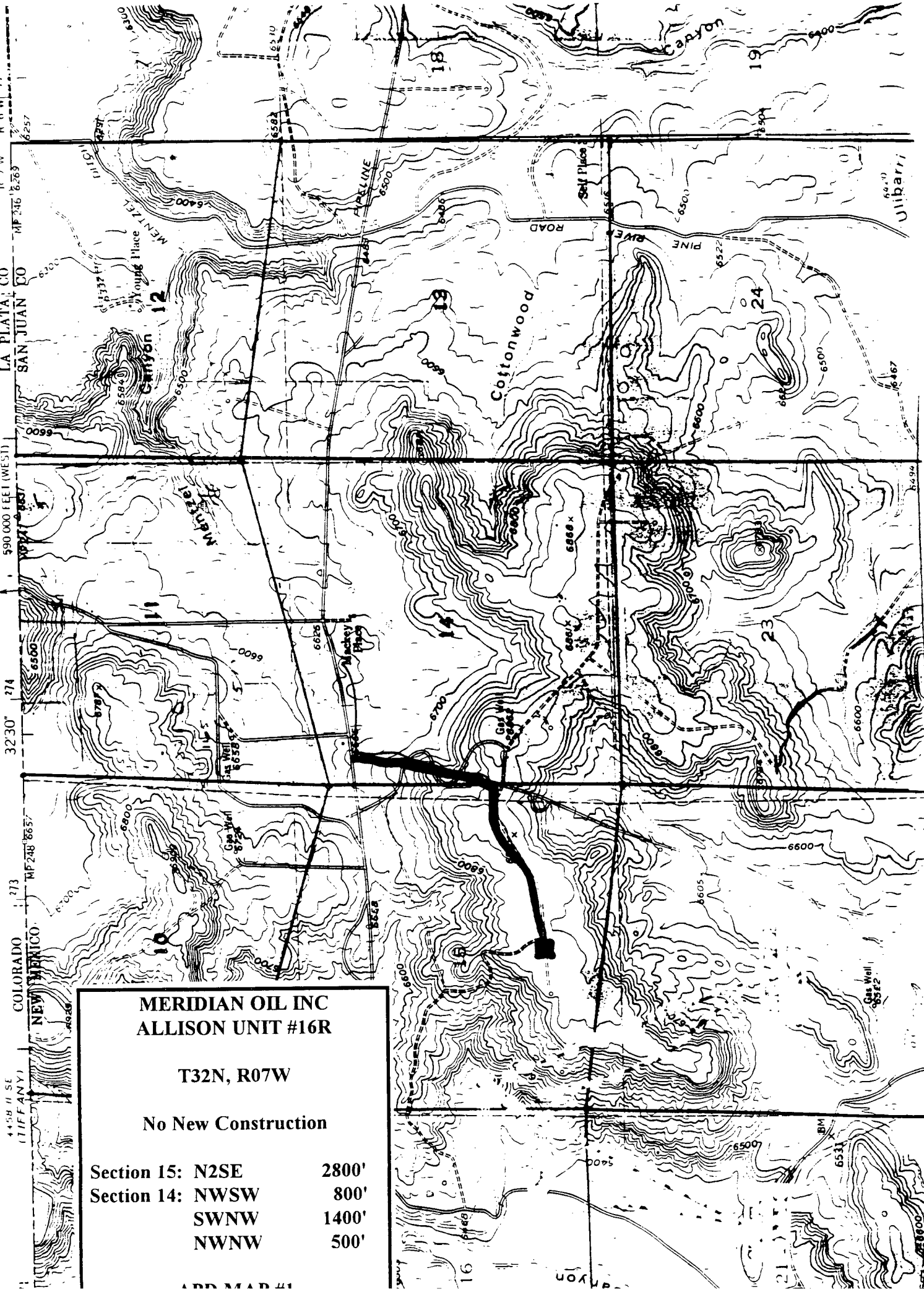
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be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

\_\_\_\_\_  
Date

JWC:pb

THE LANE CO. 2.5 MI  
3 MI TO COLO 151

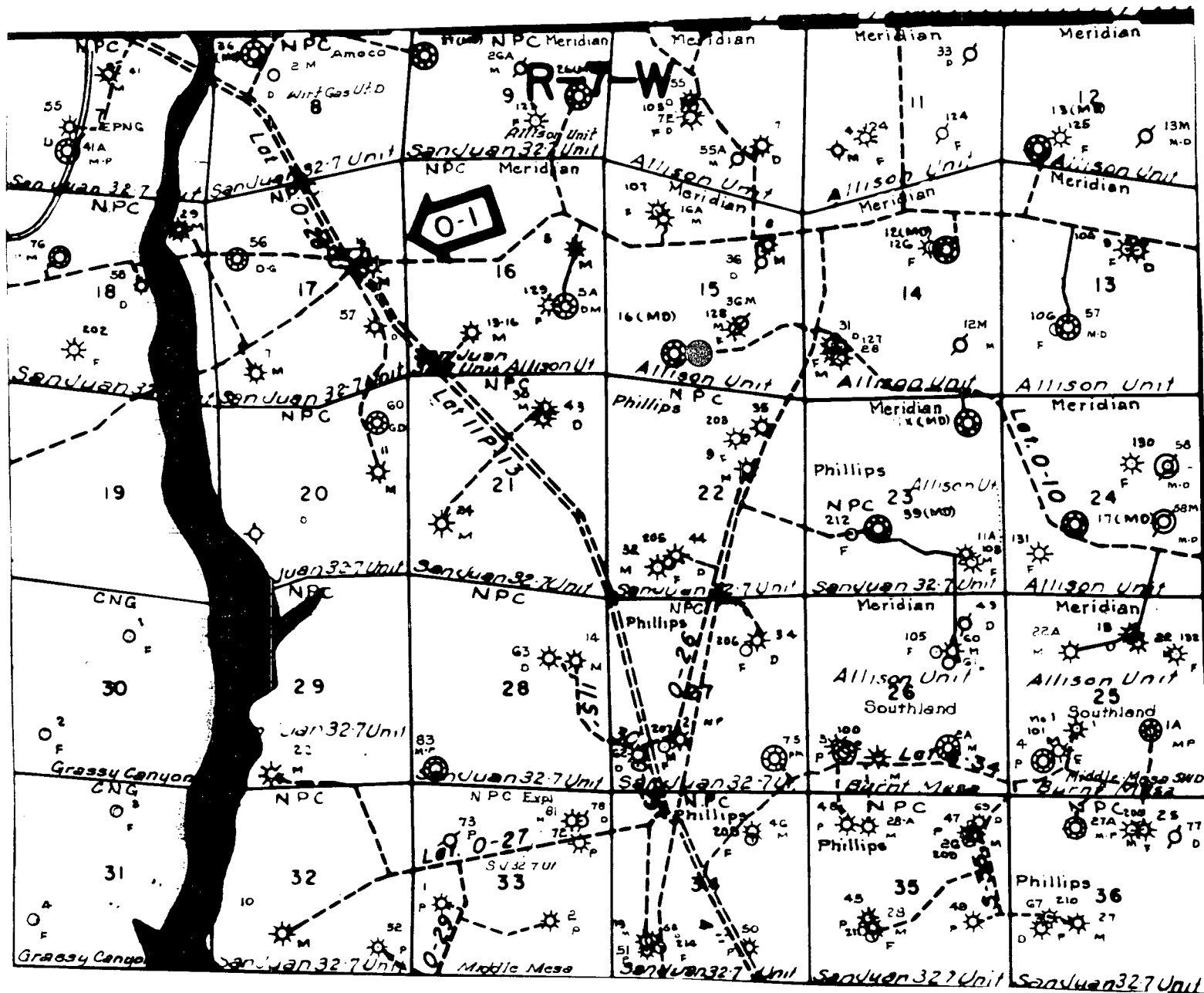


MERIDIAN OIL INC  
ALLISON UNIT #16R

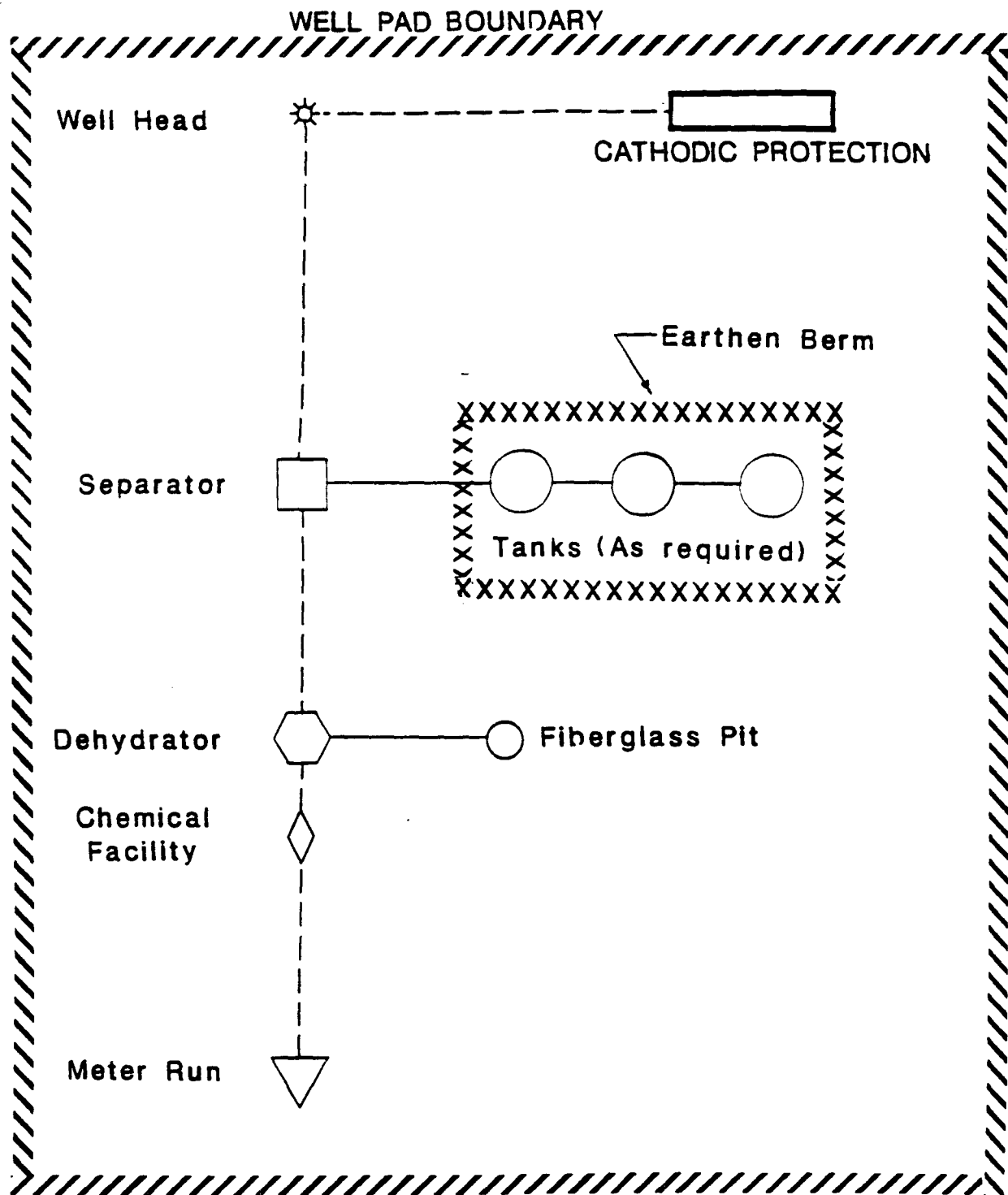
T32N, R07W

No New Construction

Section 15: N2SE	2800'
Section 14: NWSW	800'
SWNW	1400'
NWNW	500'



MERIDIAN OIL INC.  
 Pipeline Map  
 T-32-N, R-07-W  
 San Juan County, New Mexico  
 Allison Unit #16R  
 Map #1A



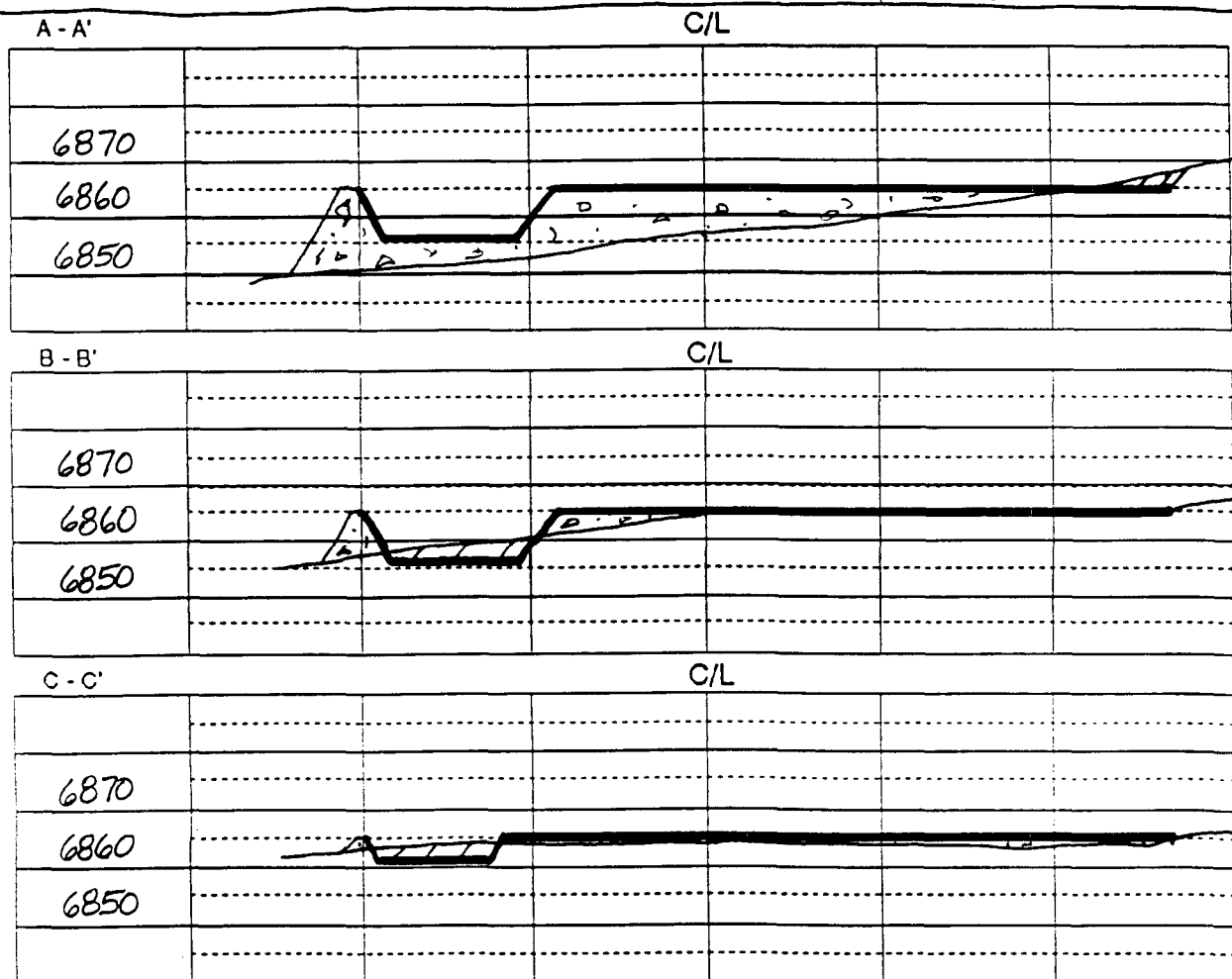
**PLAT #1**

**MERIDIAN OIL**

ANTICIPATED  
PRODUCTION FACILITIES  
FOR A  
MESA VERDE WELL

KFR 2/90

Name: MOI ALLISON UNIT \* 16R  
Footage: 995' FSL, 2335' FWL  
Sec 15 T- 32 N-R- 7 W NMPM  
Co. SAN JUAN St. N.M.  
Elevation: 6860' Date: 4-23-93



**Figure #4**



**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

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

**DISTRICT II**  
P.O. Drawer DD, Artesia, 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 Allison Unit		Well No. 16R
Unit Later N	Section 15	Township 32 North	Range 7 West NMPM	County San Juan
Actual Footage Location of Well:				
995 feet from the South line and 2335 feet from the West line				
Ground level Elev. 6860'	Producing Formation Mesa Verde		Pool Blanco	Dedicated Acreage: 335.36 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or highlighter marks 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 interest of all owners been consolidated by communitization, 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 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, dissolving 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 *Regan K. Kishner*

Peggy Bradfield

Printed Name  
Regulatory Affairs

**Position**  
Meridian Oil Inc.

Company 6-28-93

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.

4-23-93

Date Supervised \_\_\_\_\_

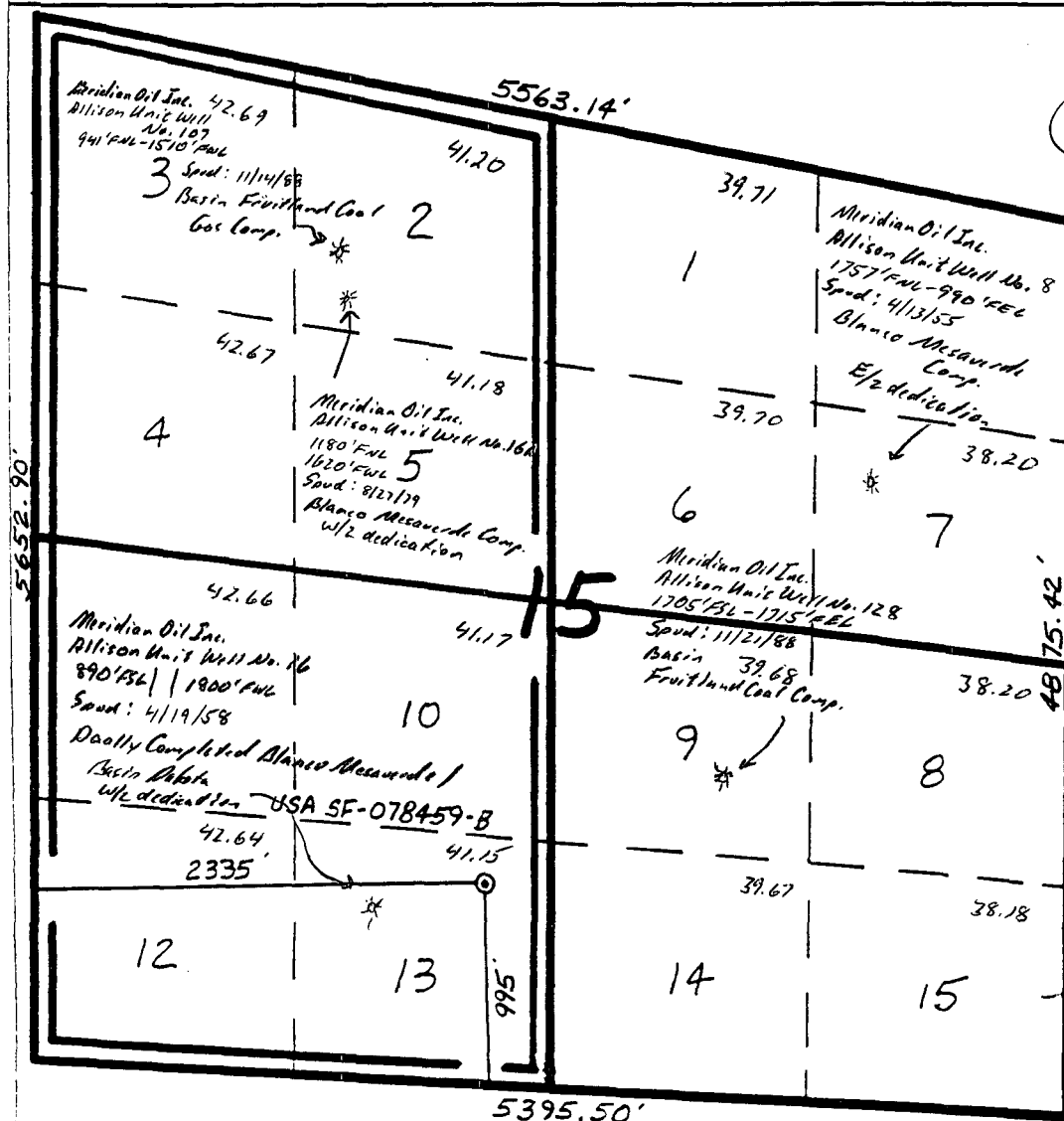
Signature \_\_\_\_\_  
Professional Surveyor

NEW YORK  
6857

685

Certificate of MARRIAGE

Neale C. Edwards



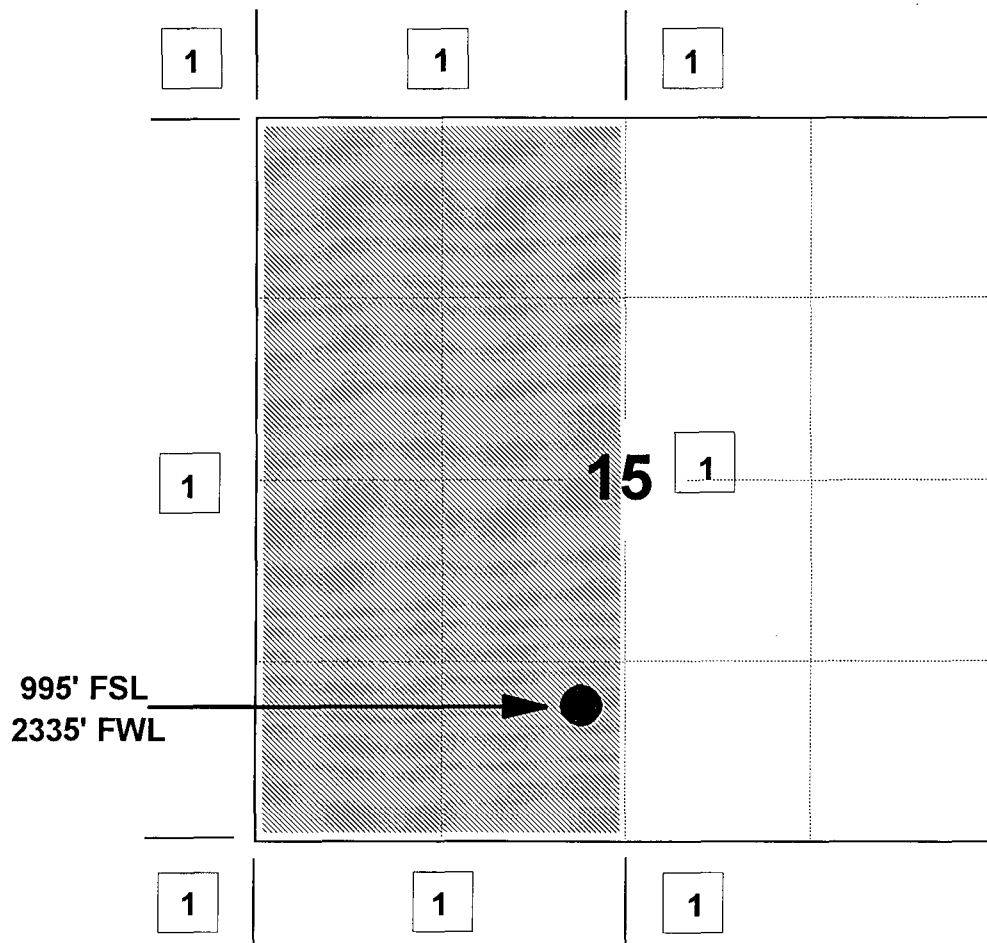
# MERIDIAN OIL INC

## ALLISON UNIT #16R

OFFSET OPERATOR \ OWNER PLAT

Unorhtodox Well Location

Township 32 North, Range 07 West



1) Meridian Oil Inc

---

---

---

---

---

---

---

---

---

---

