



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

August 30, 1993

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

Attention: Peggy Bradfield

RECEIVED
SEP -1 1993
OIL CON. DIV.
DIST. 3

Administrative Order NSL-3303

Dear Ms. Bradfield:

Reference is made to your application dated August 3, 1993 for an unorthodox gas well location in both the Blanco Mesaverde and Tapacitos Pictured Cliffs Pools for your proposed Jicarilla 98 Well No. 10 to be drilled 700 feet from the South line and 635 feet from the West line (Unit M) of Section 17, Township 26 North, Range 3 West, NMPM, as projected into the unsurveyed Jicarilla Apache Indian Reservation, Rio Arriba County, New Mexico.

It is our understanding that production from both the Mesaverde and Pictured Cliffs intervals are to be downhole commingled.

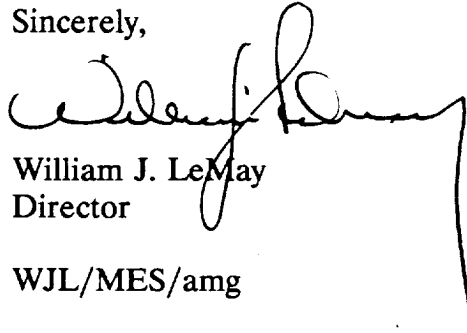
By the authority granted me under the provisions of Rule 2(c) of the General Rules and Regulations for the Prorated Gas Pools of New Mexico, the Special Rules and Regulations for the Tapacitos Pictured Cliffs Pool and the Special Rules and Regulations for the Blanco Mesaverde Pool, as promulgated by Division Order No. R-8170, as amended, the above-described unorthodox gas well location is hereby approved.

Further, the S/2 and SW/4 of said Section 17 shall be dedicated to said well forming standard 320-acre and 160-acre gas spacing and proration units for the Blanco Mesaverde and Tapacitos Pictured Cliffs Pools, respectively.

Administrative Order NSL-3303
Meridian Oil, Inc.
August 30, 1993
Page 2

Also, Meridian Oil, Inc. shall comply with all provisions of Division General Rule 303.C pertaining to the downhole commingling of the gas from both zones.

Sincerely,

A handwritten signature in dark ink, appearing to read 'William J. LeMay', is written over the typed name and title.

William J. LeMay
Director

WJL/MES/amg

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



STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

Date: 8-10-93

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Attn: Mike Stogner

RE: Proposed MC _____
Proposed NSL X _____
Proposed WFX _____
Proposed NSP _____

Proposed DHC _____
Proposed SWD _____
Proposed PMX _____
Proposed DD _____

Gentlemen:

I have examined the application received on 8-5-93
for the Mexican Oil Inc. Jicarilla 98 #10
OPERATOR LEASE & WELL NO.

M-17-26103W and my recommendations are as follows:
UL-S-T-R

Approve

Yours truly,

Ernest Brock

MERIDIAN OIL

August 3, 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. Jicarilla 98 #10
700'FSL, 635'FWL Section 17, T-26-N, R-3-W
Rio Arriba County, New Mexico

RECEIVED
AUG - 5 1993
OIL CON. DIV.
DIST. 3

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Mesa Verde and 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 Jicarilla Apache Tribe.

This well is planned as a Mesa Verde/Pictured Cliffs commingle and application is being made to the New Mexico Oil Conservation Division for the 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 south half dedication for the Mesa Verde and southwest quarter dedication for the Pictured Cliffs 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.

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 Jicarilla 98 #10 as proposed above.

By: _____ Date: _____

xc: Consolidated Oil & Gas Corp.
Jerome P. McHugh

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	RECEIVED AUG - 5 1993	5. Lease Number Jicarilla Contract 98
1b. Type of Well GAS		6. If Indian, All. or Tribe Jicarilla Apache
2. Operator MERIDIAN OIL	OIL CON. DIV DIST. 3	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700		8. Farm or Lease Name Jicarilla 98 9. Well Number 10
4. Location of Well 700' FSL, 635' FWL Latitude 36° 28' 52", Longitude 107° 10' 28"		10. Field, Pool, Wildcat Tapacitos Pic Cliffs/ Blanco Mesa Verde 11. Sec., Twn, Rge, Mer. Sec 17, T-26-N, R-3-W NMPM
14. Distance in Miles from Nearest Town 35 miles to Dulce, NM	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 635'		
16. Acres in Lease	17. Acres Assigned to Well 160 (SW/4) & 320 (S/2)	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 300'		
19. Proposed Depth 6455'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 7087' GR	22. Approx. Date Work will Start 3rd quarter 1993	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Donald C. Walther</u> Regional Drilling Engineer	<u>7/29/93</u> Date	

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY _____ TITLE _____ DATE _____

Archaeological Report submitted 7-5-93 f/JAAS
Threatened and Endangered Species Report submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-80

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, Arama, NM 88210

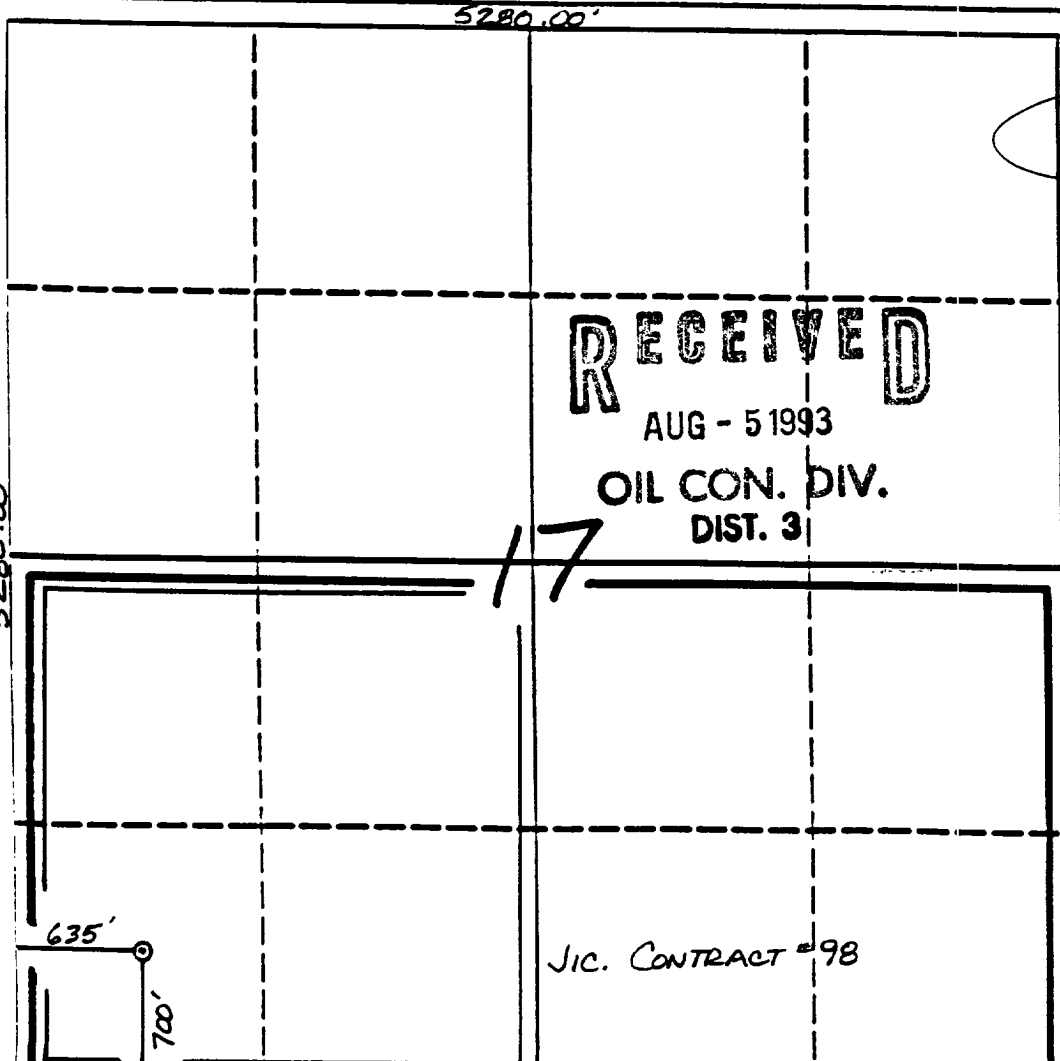
DISTRICT III
1000 Rio Arriba Rd., Alamogordo, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the corner boundaries of the section

Operator		Lands		Well No.	
Meridian Oil Inc.		Jicarilla 98		10	
Use Later	Section	Township	Range	County	
M	17	26 North	3 West	NM	Rio Arriba
Actual Footage Location of Well:					
700		feet from the South line and		635	
feet from the West line					
Ground level Elev.		Footage		Dedicated Acreage	
7087'		Pictured Cliffs/Mesa Verde Tapacitos/Blanco		160/320 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 (such 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 considered by communication, unification, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consideration _____
If answer is "no" list the owners and their descriptions which have actually been considered. (Use reverse side of this form if necessary).
No allowance will be assigned to the well until all interests have been considered (by communication, unification, 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

7-28-93

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.

6-22-93
Date Surveyed

G. Edwards
Signature

Professional Surveyor

8857

G. Edwards
Signature

Commission Expires

July 29, 1993

OPERATIONS PLAN

Well Name: Jicarilla 98 #10
Location: 700'FSL, 635'FWL Section 17, T-26-N, R-3-W
 Rio Arriba County, New Mexico
 Latitude 36° 28' 52", Longitude 107° 10' 28"
Formation: Tapacitos Pictured Cliffs/Blanco Mesa Verde
Elevation: 7087'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3325'	
Ojo Alamo	3325'	3465'	aquifer
Kirtland	3465'	3585'	
Fruitland	3585'	3770'	gas
Pictured Cliffs	3770'	3950'	gas
Lewis	3950'	4715'	
Chacra	4715'	5450'	gas
Mesa Verde	5450'	5545'	gas
Menefee	5545'	5905'	gas
Point Lookout	5905'	6455'	gas
Total Depth	6455'		

Logging Program:

Mud Logs/Coring/DST -
 Mud logs - 3500' to Total Depth
 Coring - none
 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
200-6455'	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' - 6455'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 6455'	2 3/8"	4.7#	J-55 EUE
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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" 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, 2000 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 @ 4050'. Lead w/680 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: 1104 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to surface. Lead w/976 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: 1845 cu.ft. Excess slurry: 100%.)

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 @ 3465'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

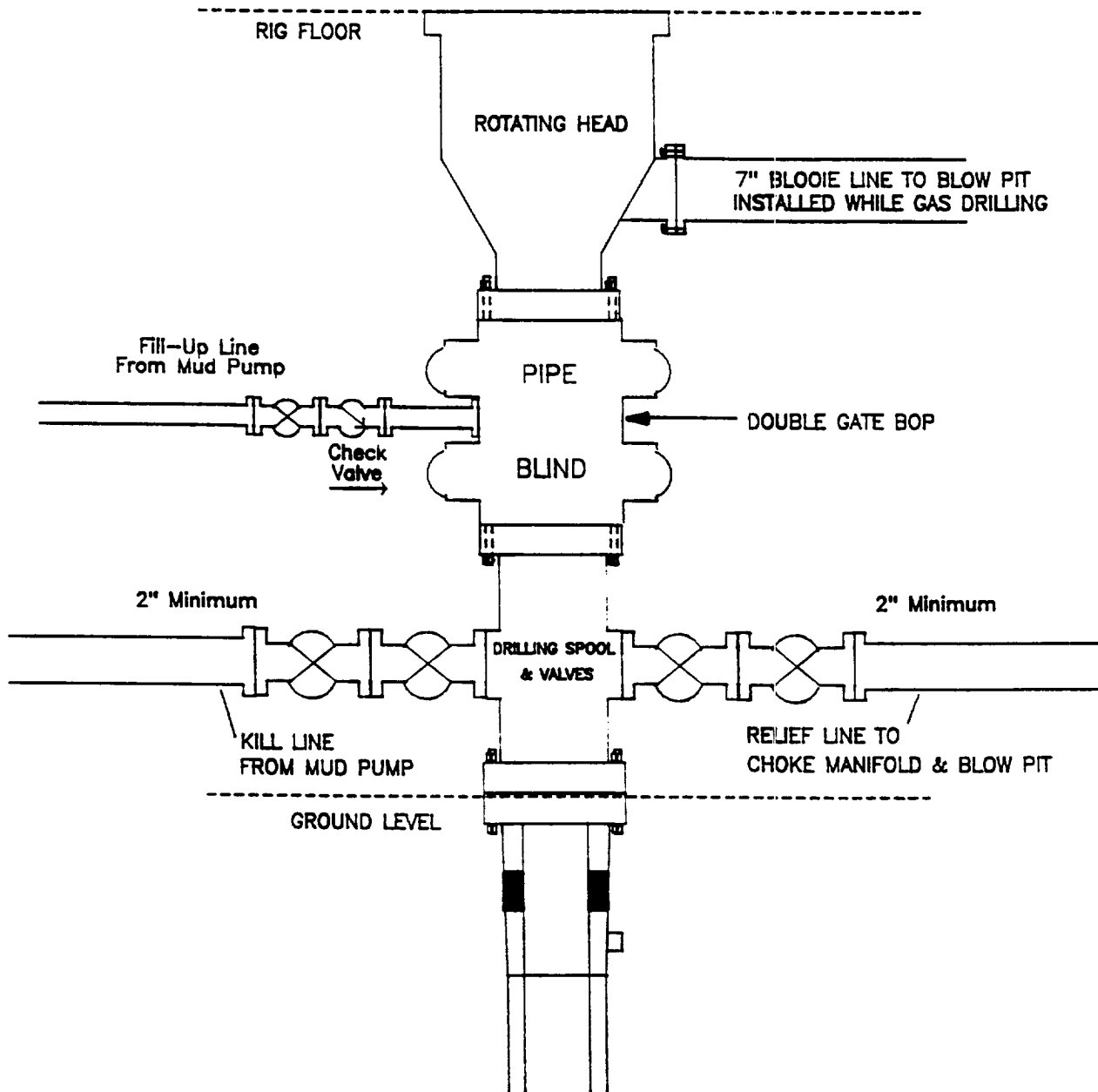
- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Additional Information:

- Pictured Cliffs and Mesa Verde 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 South half of Section 17 is dedicated to the Mesa Verde and the Southwest quarter is dedicated to the Pictured Cliffs.
- 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.

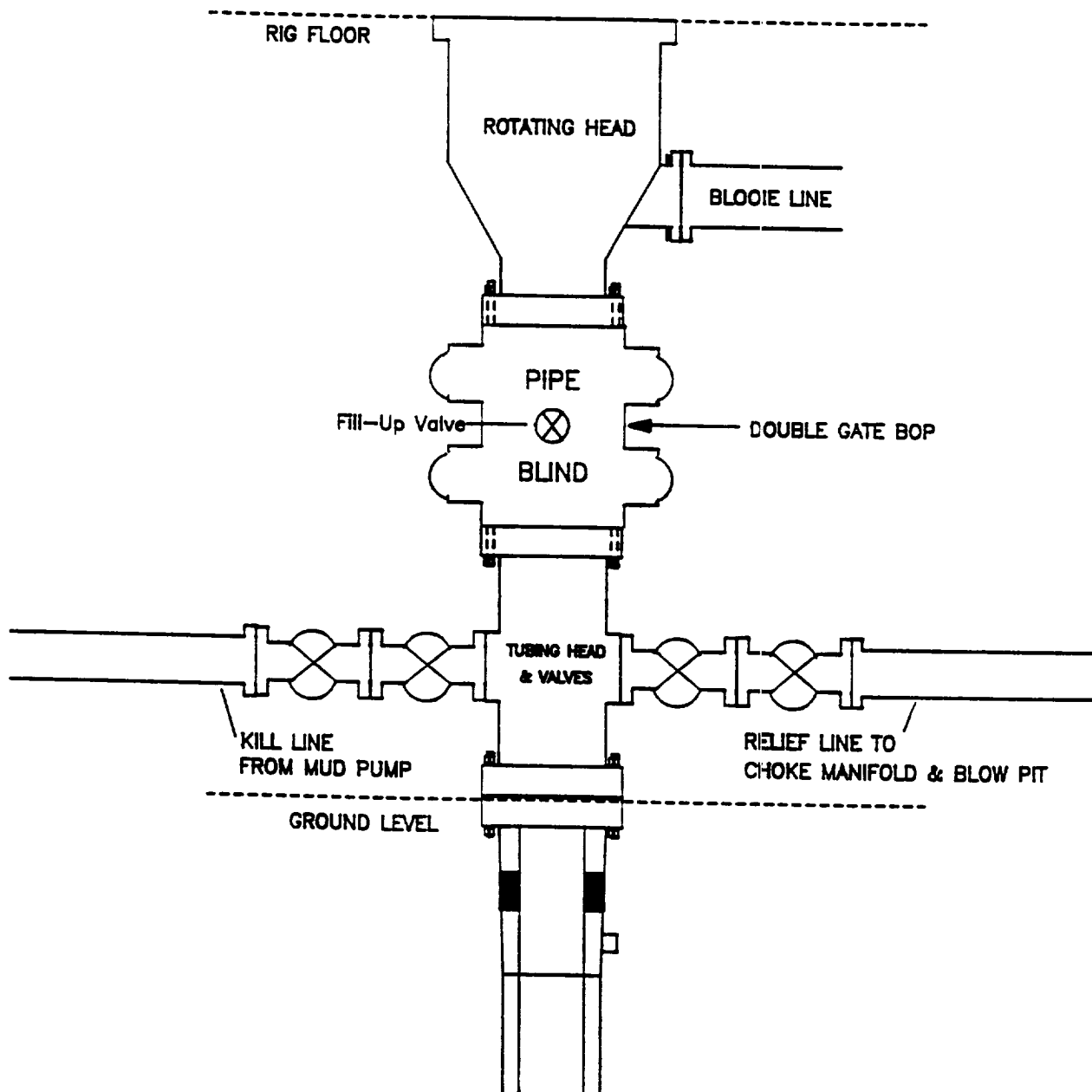
Mesaverde Well BOP Configuration



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

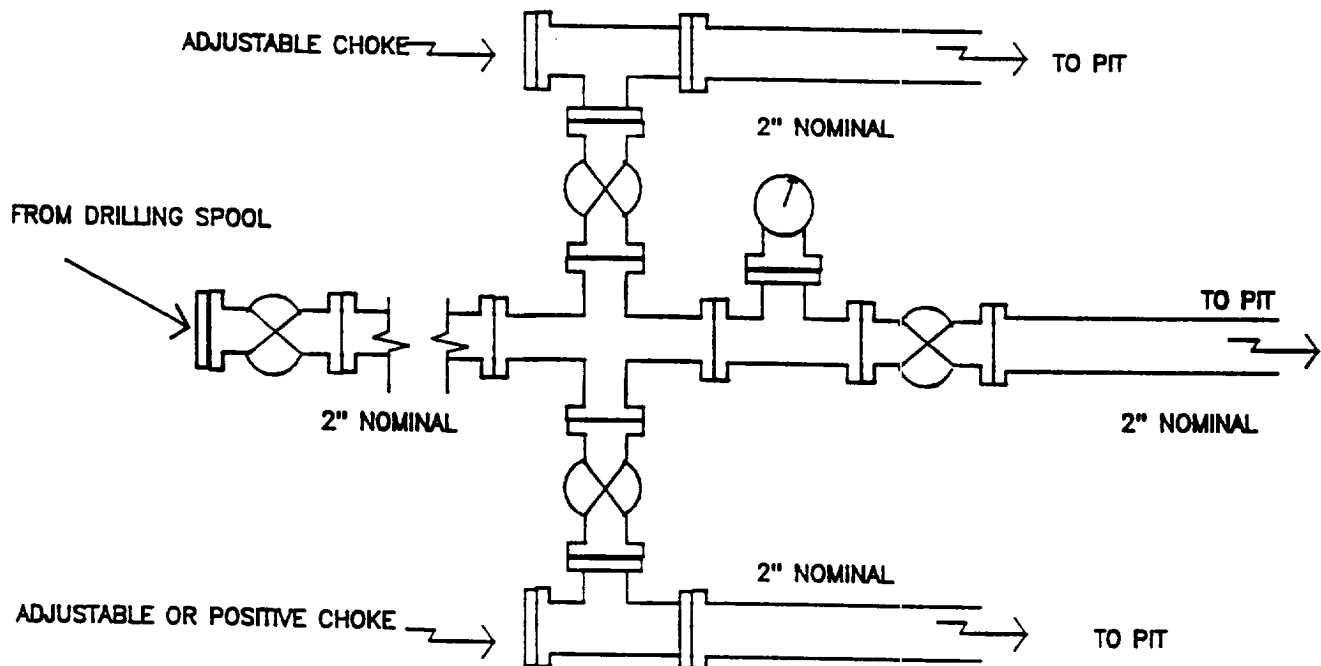
MERIDIAN OIL INC.
Mesaverde Well — Completion Rig
BOP Configuration



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

MERIDIAN OIL
Jicarilla 98 #10
Multi-Point Surface Use Plan

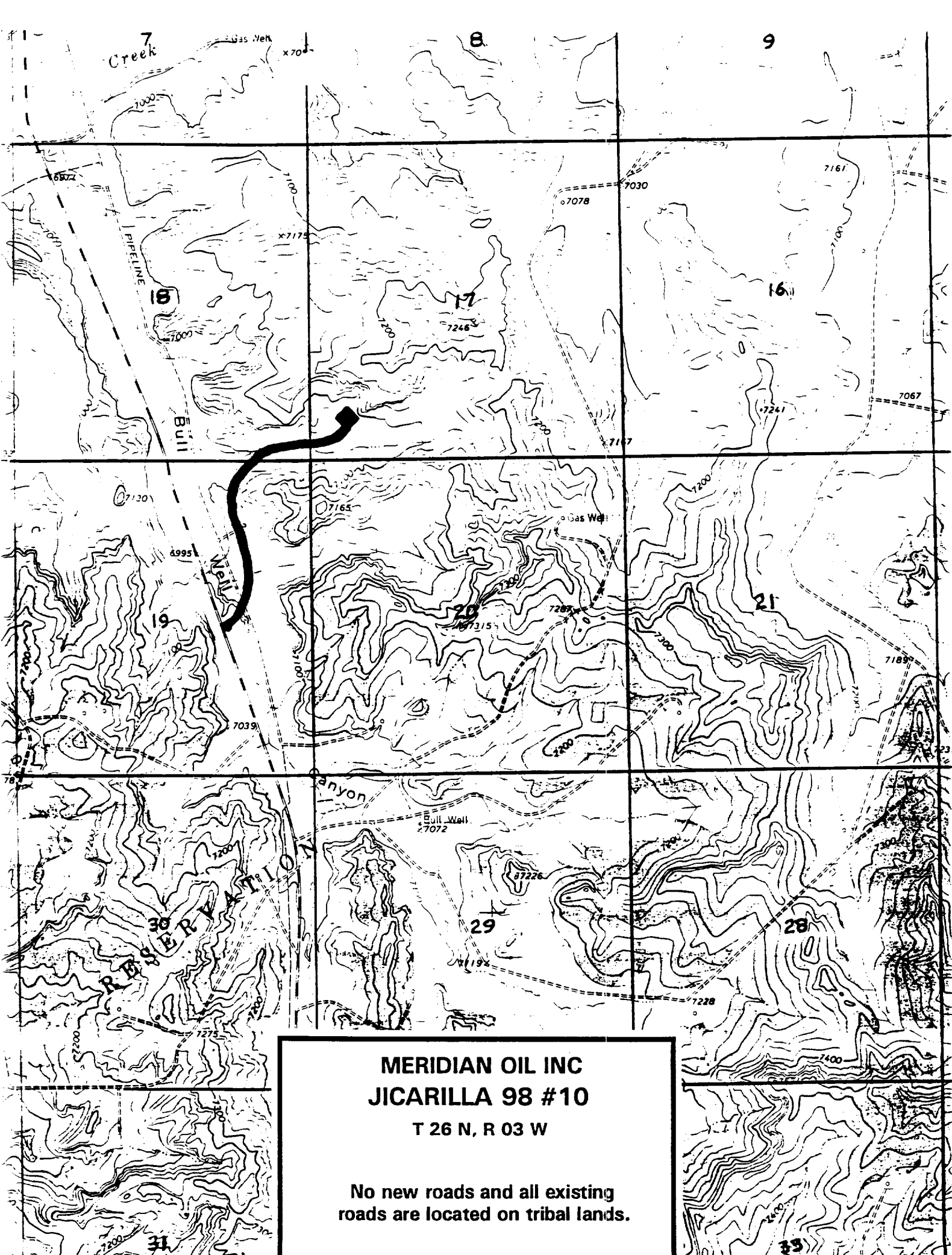
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. None required.
3. Location 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 Bull Pasture Well located SW Section 17, T-26-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 - Jicarilla Apache Tribe.
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.

Donald C. Walther
Regional Drilling Engineer

7/29/93
Date

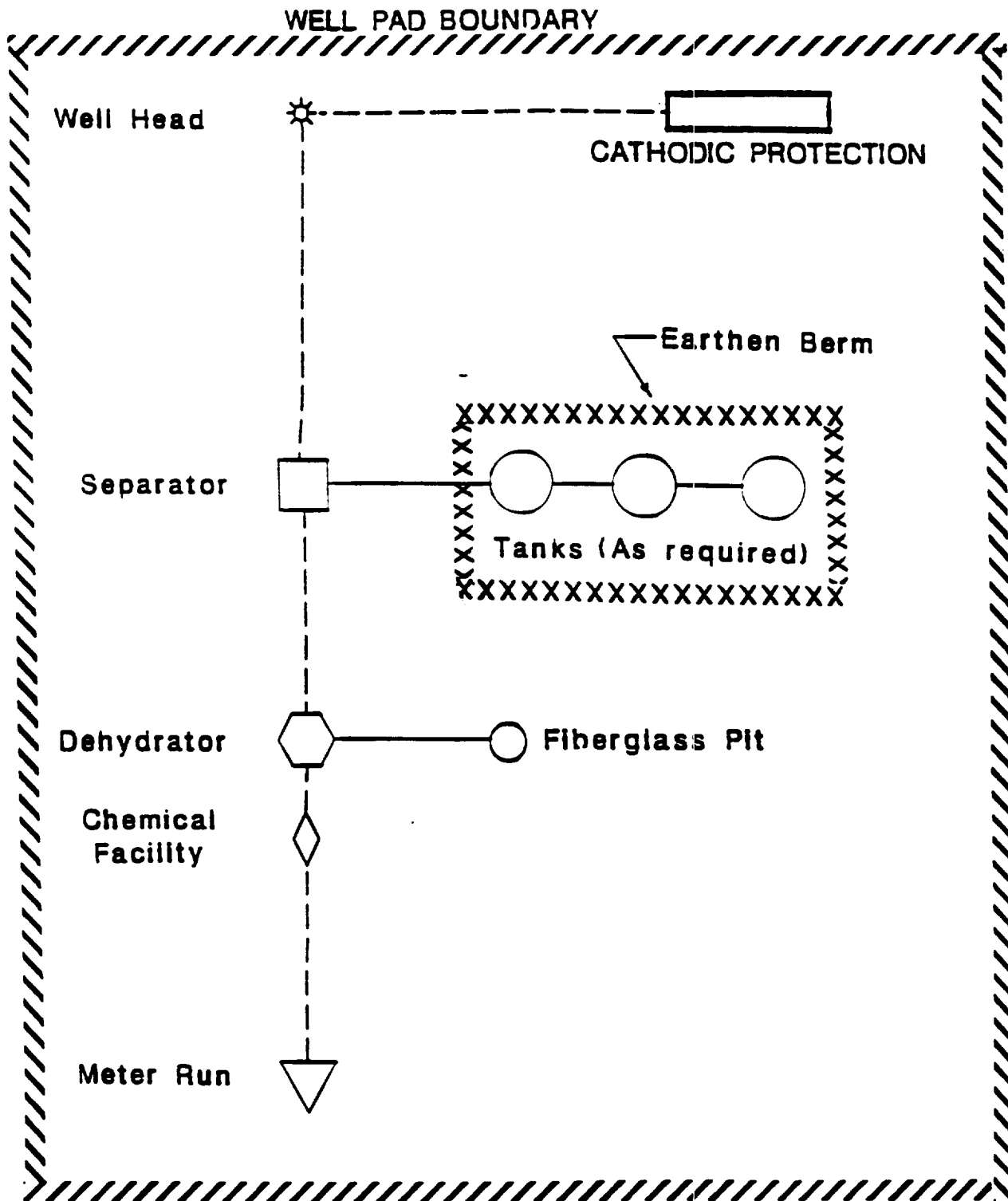
JWC:pb



**MERIDIAN OIL INC
JICARILLA 98 #10**

T 26 N, R 03 W

**No new roads and all existing
roads are located on tribal lands.**



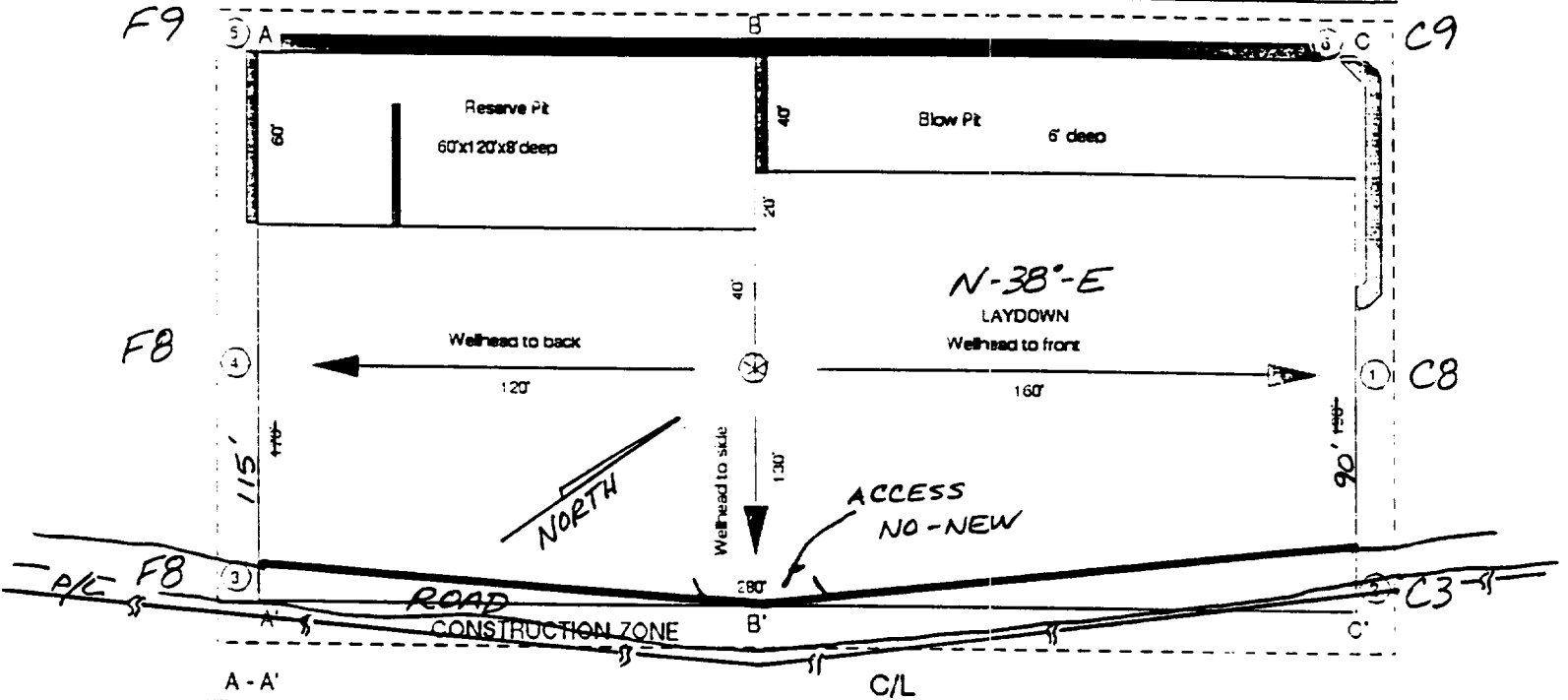
PLAT #1

MERIDIAN OIL
ANTICIPATED
PRODUCTION FACILITIES
FOR A
MESA VERDE WELL

MERIDIAN OIL

Plat 5

Name: MOL - LICABILLA 98 " 10
 Footage: 700' FSL, 635' FWL
 Sec 17 T- 26 N.R- 3 NMPM
 Co. RIO ARRIBA St. N.M.
 Elevation: 7087' Date: 6-22-93



A - A'		C/L	
7097			
7087			
7077			
B - B'		C/L	
7097			
7087			
7077			
C - C'		C/L	
7097			
7087			
7077			

Schedule 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 Arriba Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

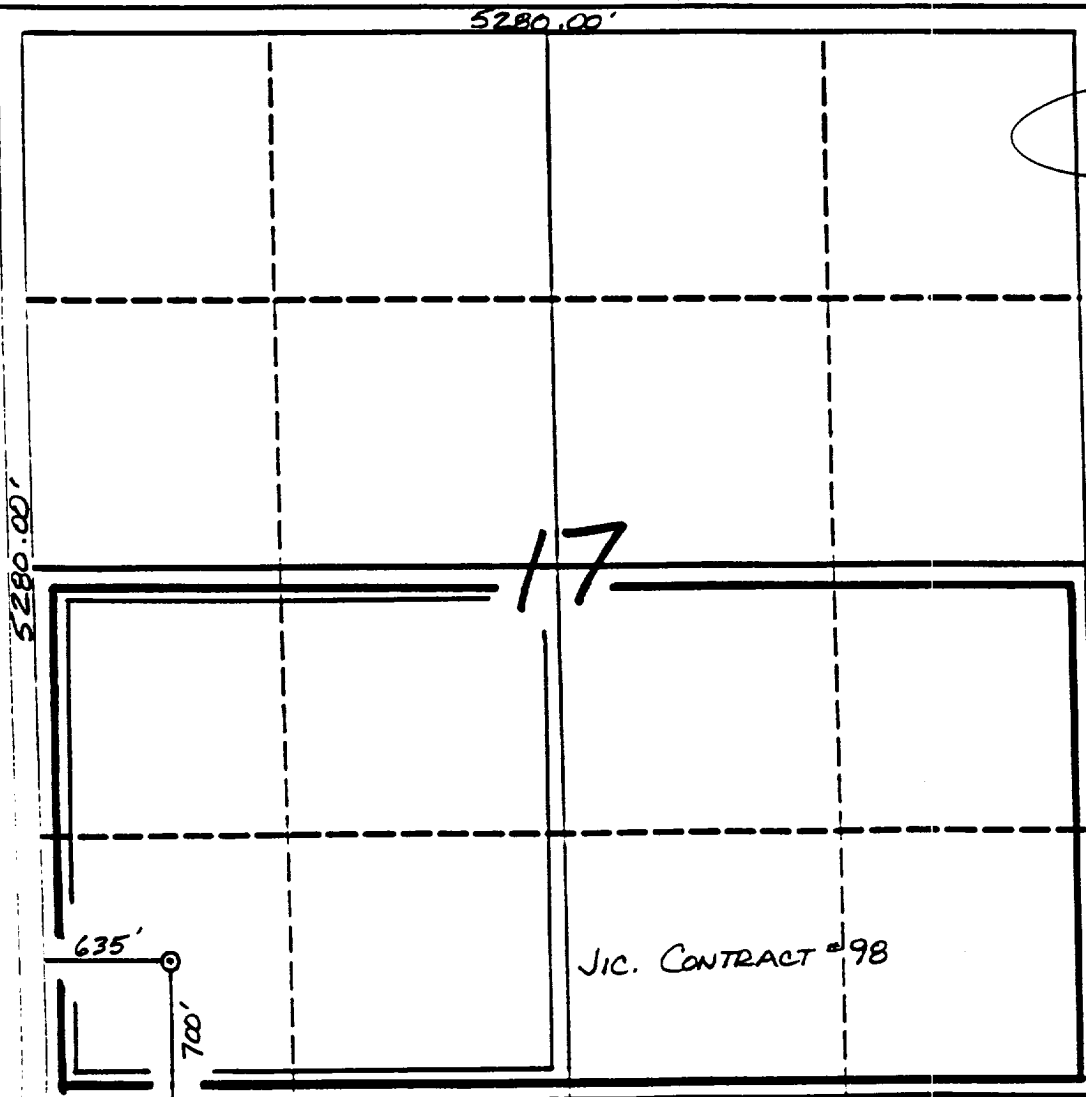
All Distances must be from the outer boundaries of the section

Operator		Lease		Well No.	
Meridian Oil Inc.		Jicarilla 98		10	
U.S. Letter	Section	Township	Range	County	
M	17	26 North	3 West	NM/PM Rio Arriba	
Actual Footage Location of Well:					
700	feet from the	South	line and	635	feet from the West line
Ground level Elev.	Producing Formation		Foot	Dedicated Acreage	
7087'	Pictured Cliffs/Mesa Verde		Tapacitos/Blanco	160/320 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 _____

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

No allowance will be assigned to the well until all interests have been consolidated (by commutation, unitization, force-pooling, or otherwise) or until a unit standard unit, eliminating such interests, 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

7-28-93

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 correct to the best of my knowledge and belief.

6-22-93

Date Surveyed C. EDWARDS
New Mexico Professional Surveyor

Signature of Surveyor
Professional Surveyor

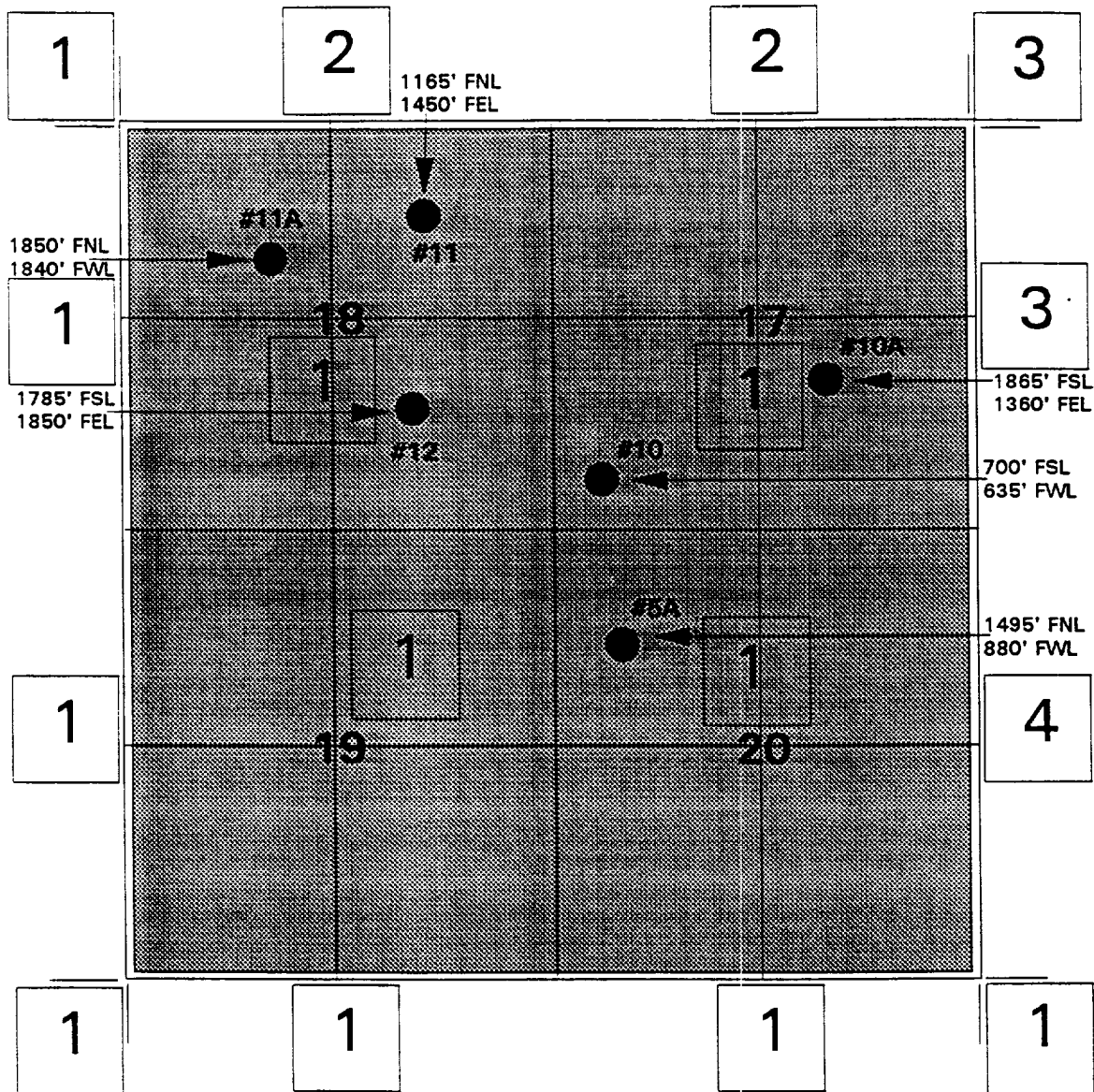
3857

Professional Surveyor
C. EDWARDS

6857

MERIDIAN OIL INC.

OFFSET OPERATOR/OWNER PLAT Pictured Cliffs/Mesaverde Commingle Township 26 North, Range 3 West Rio Arriba County, New Mexico



See Attached List

**Pictured Cliffs/Mesaverde Commingle
Township 26 North, Range 3 West
Offset Operators**

1. **Meridian Oil Inc.
P.O. Box 4289
Farmington, NM 87499-4289**
2. **Consolidated Oil & Gas Corp.
419 17th Street, Suite 400
Denver, CO 80202-4410**
3. **Jerome P. McHugh
650 S. Cherry Street, Suite 1225
Denver, CO 80222**
4. **Jerome P. McHugh
650 S. Cherry Street, Suite 1225
Denver, CO 80222**

**Dugan Production Corp.
P.O. Box 420
Farmington, NM 87499-0402**

Re: Meridian Oil Inc. Jicarilla 98 #10
700'FSL, 635'FWL Section 17, T-26-N, R-3-W
Rio Arriba County, New Mexico

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.

Consolidated Oil & Gas Corp.
419 17th Street, Suite 400
Denver, CO 80202-4410

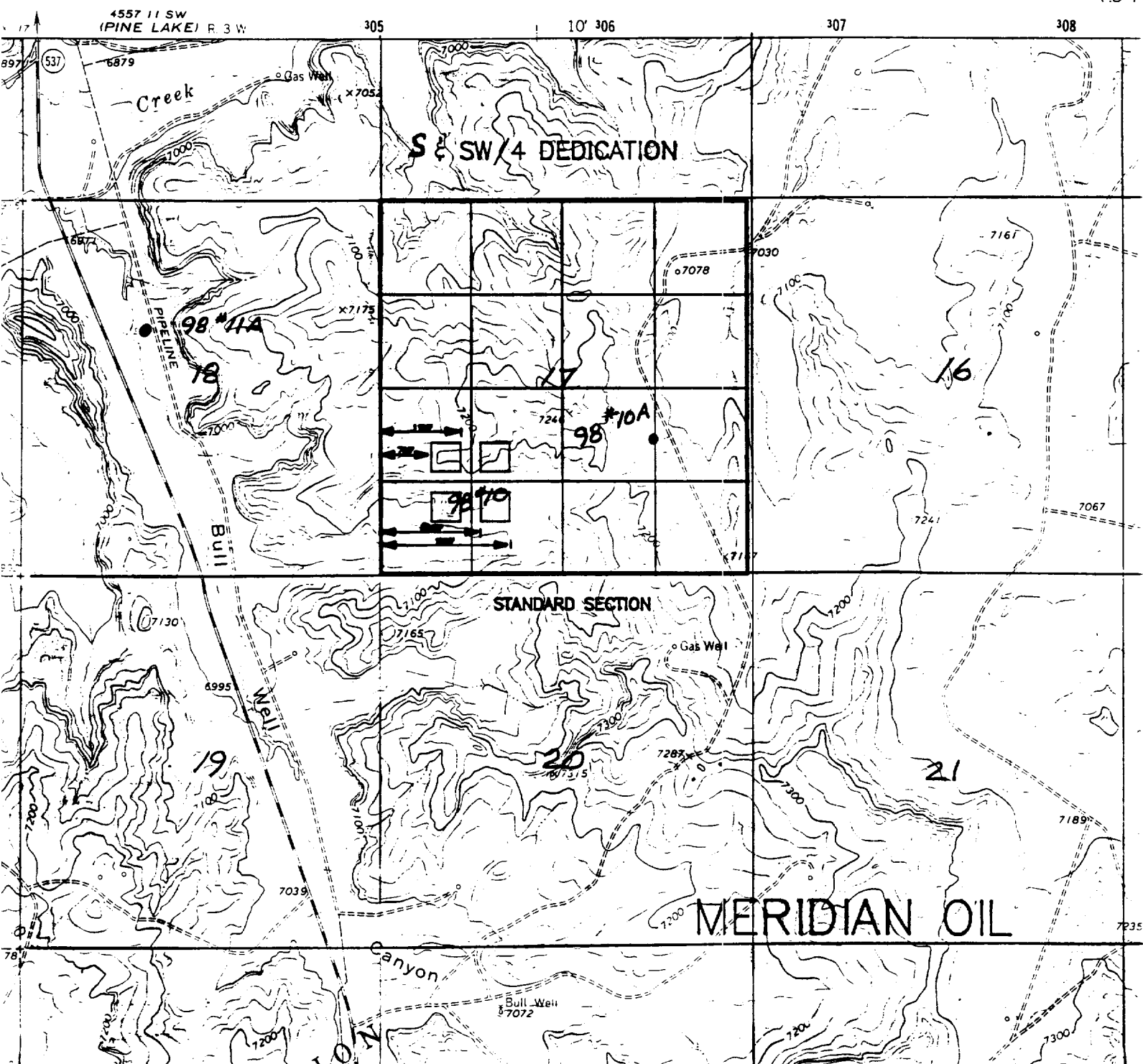
Jerome P. McHugh
650 South Cherry Street, Suite 1225
Denver, CO 80222

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

Peggy A. Bradfield
San Juan County
State of New Mexico

My commission expires August 17, 1996

7.5 A



4557 11 SW
(PINE LAKE) R. 3 W.

305

10' 306

307

