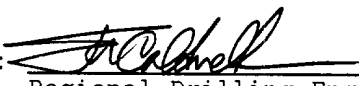


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

30-039-25292
RECEIVED
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APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK
DIP ALBUQUERQUE, N.M.

1a. Type of Work DRILL	RECEIVED AUG - 4 1993	5. Lease Number Jic. Contract 99
1b. Type of Well GAS		6. If Indian, All. or Tribe Jicarilla Apache
2. Operator MERIDIAN OIL 14538	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 99-7168 9. Well Number 17
4. Location of Well 150' FNL, 670' FWL Latitude 36° 28' 46", Longitude 107° 07' 13"		10. Field, Pool, Wildcat 18025 NE Ojito Gallup Dk EXT 11. Sec., Twn, Rge, Mer. D Sec 23, T26N, R3W NMPM
14. Distance in Miles from Nearest Town 3.5 miles Ojito, NM	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 150'		
16. Acres in Lease	17. Acres Assigned to Well 160.0 NW/4	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 4000'		
19. Proposed Depth 7325' TVD, 10,450' MD	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 7257' GR	22. Approx. Date Work will Start 2nd quarter 1993	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: 	2-19-93 Date	
Regional Drilling Engineer		

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY SHIRLEY MONDY

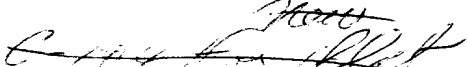
Acting AREA MANAGER

TITLE RIO PUERCO RESOURCE AREA DATE AUG 2 1993

Archaeological Report submitted 10-15-92

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

NMOCD


R-9812 (C)

Schedule to Accompany
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-80

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

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer 00, Artesia, 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 Jicarilla 99 Well No. 17

U.S. Lat. D Section 23 Township 26 North Range 3 West County Rio Arriba

Actual Footage Location of Well: 150 feet from the North line and 670 feet from the West line

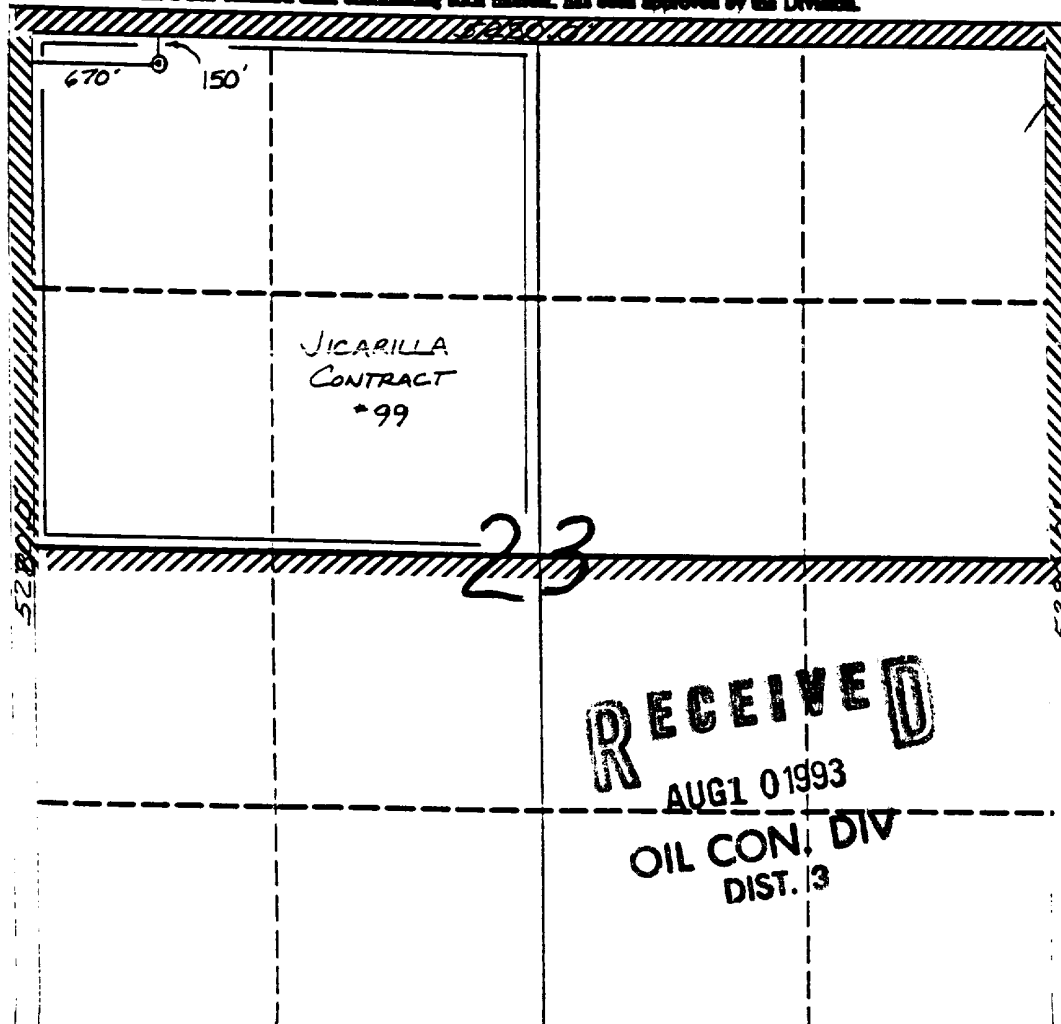
Ground level Elev. 7257' Producing Formation Gallup Dakota Pool Northeast Oilco 320 Acres

- 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 communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation

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 well be assigned to the well until all interests have been consolidated (by communitization, 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.

Signature

Peggy Bradfield

Printed Name

Regulatory Affairs

Position

Meridian Oil Inc.

Company

8-9-93

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 supervision, and that the same is true correct to the best of my knowledge and belief.

11-18-92

Date Surveyed

Needle Creek

Signature of Surveyor
Professional Surveyor



RECEIVED
AUG 10 1993
OIL CON. DIV
DIST. 3

OPERATIONS PLAN

Well Name: Jicarilla 99 #17
Location: 150'FNL, 670'FWL, Section 23, T-26-N, R-3-W
 Rio Arriba County, New Mexico
 Latitude 36° 28' 46", Longitude 107° 07' 13"
Formation: Northeast Ojito Gallup Dakota Associated Pool
Elevation: 7257'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3415'	
Ojo Alamo	3415'	3570'	aquifer
Kirtland	3570'	3650'	salt water
Fruitland	3650'	3795'	salt water
Pictured Cliffs	3795'	3950'	salt water & gas
Lewis	3950'	5495'	salt water
Mesa Verde	5495'	5625'	salt water
Menefee	5625'	5950'	salt water
Point Lookout	5950'	6450'	salt water
Mancos	6450'	6925'	salt water
Niobrara "A"	6925' TVD	7085'	gas & hydrocarbons
Niobrara "B"	7085' TVD	7210'	gas & hydrocarbons
Niobrara "C"	7210' TVD	7325'	gas & hydrocarbons
Intermediate Depth	7086' TVD	7284' MD	
Total Depth	7325' TVD	10450' MD	

Logging Program: Mud logs from 3600' to Total Depth.
 DIL-LDT-GR from 7240' MD 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- 7284' MD	Non-dispersed	8.4-9.5	30-60	no control
7284-10450' MD	Gas/Mist	n/a	n/a	n/a

Drilling:

Surface/Intermediate Hole:

Drill to surface casing point of 200' and set 9 5/8" casing. Mud drill from 200' to intermediate total depth. The well will be drilled vertically to a kick off point depth of 6704'. At this point the well will deviate at 15.0 degrees/100 feet to 86 degrees (241 degrees azimuth). At this point (7086' TVD, 7284' MD) 7", 23.0#, N-80/K-55 casing will be set.

<u>TVD</u>	<u>MD</u>	<u>Vertical Section</u>	<u>Hole Size</u>	<u>Notes</u>
200'	200'	0'	12 1/4"	9 5/8" casing set
6704'	6704'	0'	8 3/4"	Kick off point
7086'	7284'	362'	8 3/4"	7" casing set

Production Hole:

Drill out cement/shoe of 7" casing, unload hole with gas. Drill (with gas) holding 86 degrees to a total depth of 7325' TVD (10,450' MD). Run 4 1/2" perforated and plugged liner from 6650' MD to 10,450' MD.

TVD	MD	Vertical Section	Hole Size	Notes
7086'	7284'	362'	8 3/4"	Begin gas drilling
7325'	10450'	3500'	8 3/4"	Run 4 1/2" liner

Materials:

Casing Program:

Hole Size (inches)	Measured Depth (ft)	Casing Size (in)	Weight (lbs/ft)	Grade
12 1/4"	200'	9 5/8"	32.3	H-40
8 3/4"	6704 6200'	7"	23.0	K-55
8 3/4"	7284 7306'	7"	23.0	N-80
8 3/4"	(6650-10450')	4 1/2"	10.5	K-55

Casing Equipment:

9 5/8" surface casing - sawtooth guide shoe.

7" intermediate casing - cement nose guide shoe on bottom, float collar one joint off bottom, cementing stage tool set at 3600'. Centralizers spaced as follows: (20) spaced every other joint from bottom, (1) at joint below stage tool, (15) spaced every fourth joint above stage tool to surface. Two turbolizing type centralizers, one below and one into the Ojo Alamo at 3510'.

4 1/2" production liner - 7" x 4 1/2" liner hanger, guide shoe.

Tubing:

10,000' of 2 3/8", 4.7#, J-55 8rd EUE tubing with seating nipple one joint off bottom and an expendable check valve on bottom.

Wellhead Equipment:

9 5/8" x 7" x 2 3/8" - 11" (2000 psi) wellhead assembly.

Cementing

9 5/8" surface casing - use 106 sx of Class "B" cement with 1/4#/sx flocele and 3% calcium chloride (125 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 700 psi.

7" intermediate casing -

First stage - lead with 480 sx 65/35 Class "B" poz with 6% gel and 2% calcium chloride. Tail with 100 sx of Class "B" with 2% calcium chloride (970 cu.ft. of slurry, 75% excess to cover stage tool at 3600'.

7" intermediate casing (cont'd.) -

Second stage - lead with 545 sx 65/35 Class "B" poz with 6% gel and 2% calcium chloride. Tail with 100 sx of Class "B" with 2% calcium chloride (1802 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 1500 psi.

4 1/2" production liner - liner set at 6650'. Pre-perforated and plugged from 6650' MD to 10,450' MD.

BOP and Tests

Surface to intermediate TD - 11", 3000 psi double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams and casing to 700 psi for 30 minutes.

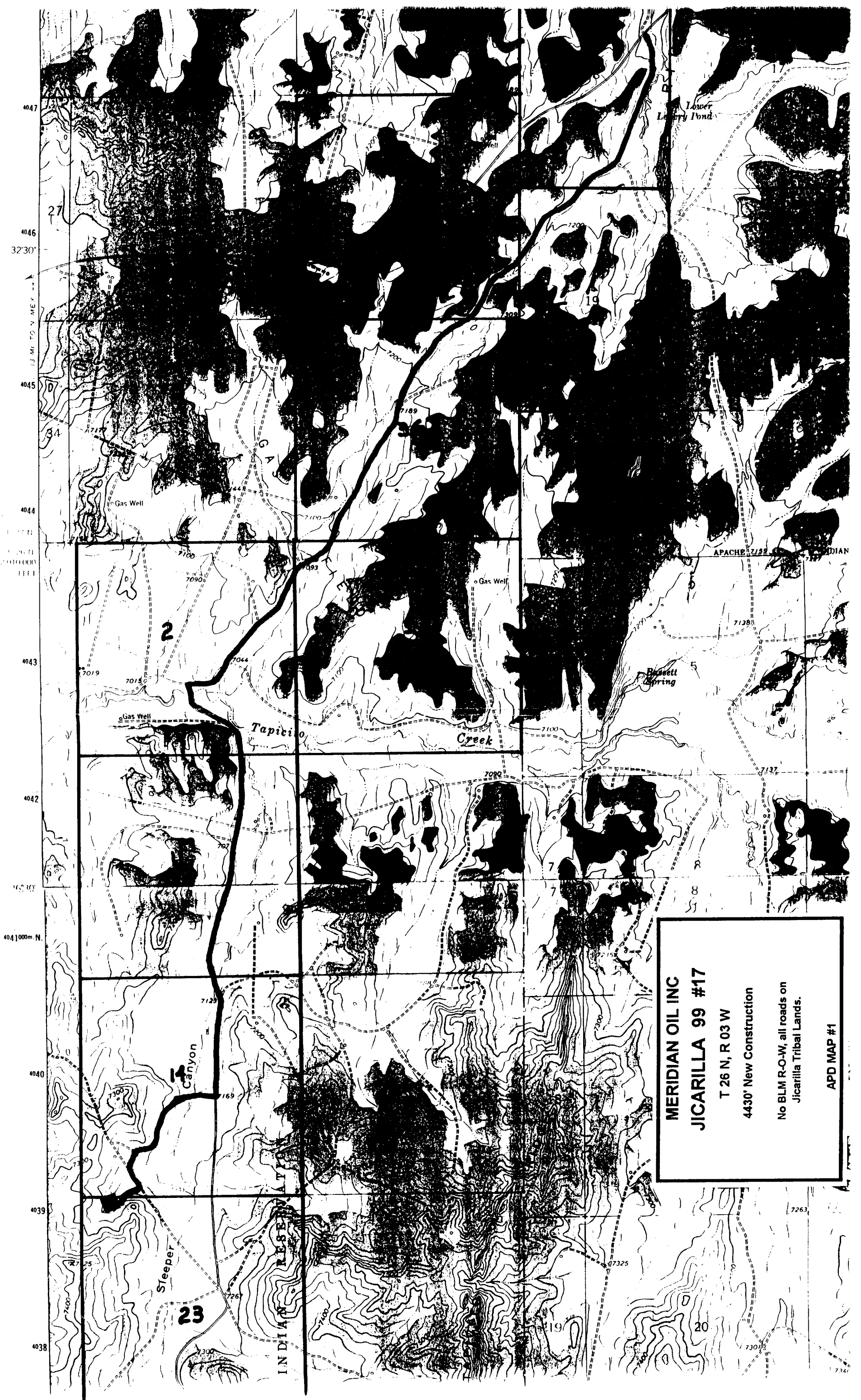
Intermediate TD to Total Depth - 10" nominal, 3000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test rams and casing to 1500 psi (minimum) for 30 minutes.

Surface to Total Depth - choke manifold (Reference Figure #3).

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

Additional Information

- This gas is dedicated.
- The Northwest quarter of Section 23 is dedicated to this well.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.



MERIDIAN OIL INC
JICARILLA 99 #17
T 26 N, R 03 W
4430' New Construction
No BLM R-O-W, all roads on
Jicarilla Tribal Lands.
APD MAP #1

