

MERIDIAN OIL

OIL CONSERVATION DIVISION
RECEIVED

MAR 1 1994 / PM 8 39

March 1, 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. San Juan 28-5 Unit #230
1290'FNL, 2314'FEL, Section 25, T-28-N, R-5-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 Pictured Cliffs formation. This application for the referenced location is due to terrain as shown on the topographic map and archaeology.

This well is planned as a Basin Fruitland Coal/South Blanco Pictured Cliffs well, and application will be made to the New Mexico Oil Conservation Division to commingle this 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
4. 7.5 minute topographic map showing the orthodox windows for the northeast 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 \$150,000.

Meridian Oil Inc. is operator of the San Juan 28-5 Unit and is the offsetting operator for this section.

Sincerely,




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-079520A	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator MERIDIAN OIL	7. Unit Agreement Name San Juan 28-5 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 28-5 Unit 9. Well Number 230	
4. Location of Well 1290' FNL, 2314' FEL Latitude 36° 38' 09", Longitude 107° 18' 22"	10. Field, Pool, Wildcat Basin Fruitland Coal/ S. Blanco Pic. Cliffs 11. Sec., Twn, Rge, Mer. Sec 25, T-28-N, R-5-W NMPM	
14. Distance in Miles from Nearest Town 6 miles to Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1290'	17. Acres Assigned to Well 344.62 N/2; 184.64 NE/4	
16. Acres in Lease		
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 70'	20. Rotary or Cable Tools Rotary	
19. Proposed Depth 3940'		
21. Elevations (DF, FT, GR, Etc.) 6775' GR	22. Approx. Date Work will Start 4th quarter 1993	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: 	9/21/93 Date	
Regional Drilling Engineer		

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

Archaeological Report submitted 05-1-93 Technical Report #228- Arboles Contract Archaeology
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

OPERATIONS PLAN

Well Name: San Juan 28-5 Unit #230
Location: 1290'FNL, 2314'FEL Section 25, T-28-N, R-05-W
 Rio Arriba County, New Mexico
 Latitude 36° 38' 09", Longitude 107° 18' 22"
Formation: Basin Fruitland Coal/So.Blanco Pictured Cliffs
Elevation: 6775'GL

Formation:	Top	Bottom	Contents
Surface	San Jose	3070'	
Ojo Alamo	3070'	3240'	aquifer
Kirtland	3240'	3450'	
Fruitland	3450'	3666'	
Fruitland Coal Top	3560'	3660'	gas
Pictured Cliffs	3666'	3940'	gas
Total Depth		3940'	

Logging Program: Mud logs from 3400' to Total Depth.
 IND, Dens, Neut, GR, ML to TD.

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-8.9	40-50	no control
200-3940'	Non-dispersed	8.4-9.5	30-60	no control

Casing Program:

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0 - 200'	8 5/8"	24.0#	K-40
7 7/8"	0 - 3940'	4 1/2"	10.5#	K-55

Tubing Program:

0 - 3940'	2 3/8"	4.7#	J-55
-----------	--------	------	------

Float Equipment: 8 5/8" surface casing - saw tooth guide shoe.
 Centralizers will 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. Four centralizers run every 3rd joint to the base of the Ojo Alamo @ 3240'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3240'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 8 5/8" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

September 21, 1993

Cementing:

8 5/8" surface casing - cement with 235 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (298 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

4 1/2" production casing -

First stage - lead w/75 sx Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, 6.25# gilsonite/sx and 1/4# flocele/sx (133 cu.ft. of slurry), tail w/100 sx Class "B" w/2% calcium chloride, 5#/sx gilsonite, 0.25#/sx celloflake (118 cu.ft.), 100% excess to circulate stage tool @ 3400'.

Second stage - lead w/733 sx of Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, 6.25# gilsonite/sx and 1/4# flocele/sx (1297 cu.ft.). Tail w/50 sx Class "B" w/2% calcium chloride (59 cu.ft. of slurry, 75% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). 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 and casing to 2000 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.

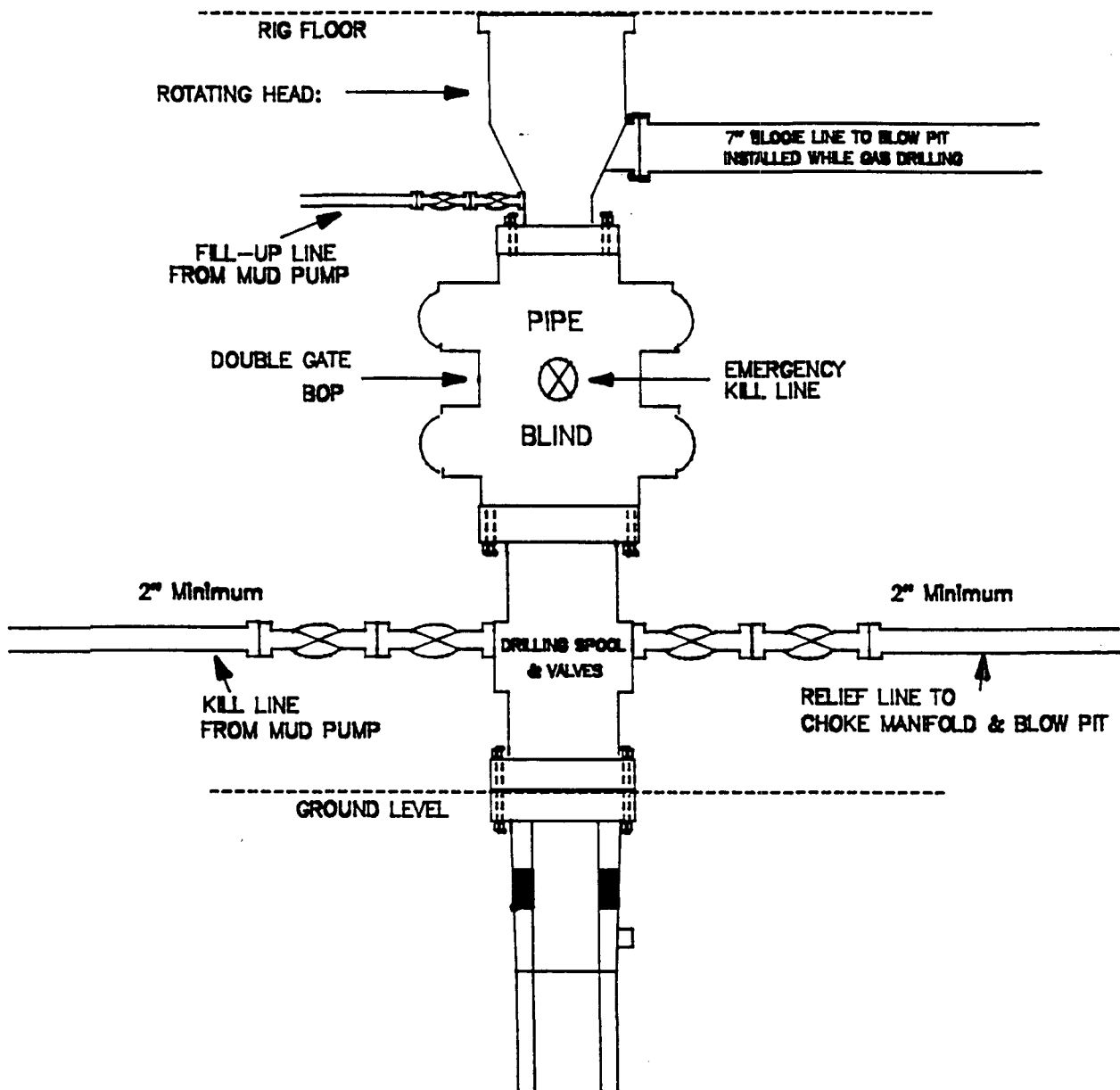
Additional information:

- * The Fruitland Coal and Pictured Cliffs formations will be completed and commingled per New Mexico Oil Conservation Division order.
- * Anticipated pore pressure for the Fruitland is 1150 psi and for the Pictured Cliffs is 1150 psi.
- * This gas is dedicated.
- * The north half of Section 24 is dedicated to the Fruitland Coal and the northeast quarter of the section is dedicated to the Pictured Cliffs.
- * New casing will be utilized.
- * Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

MERIDIAN OIL INC.

BOP Configuration

2M psi SYSTEM



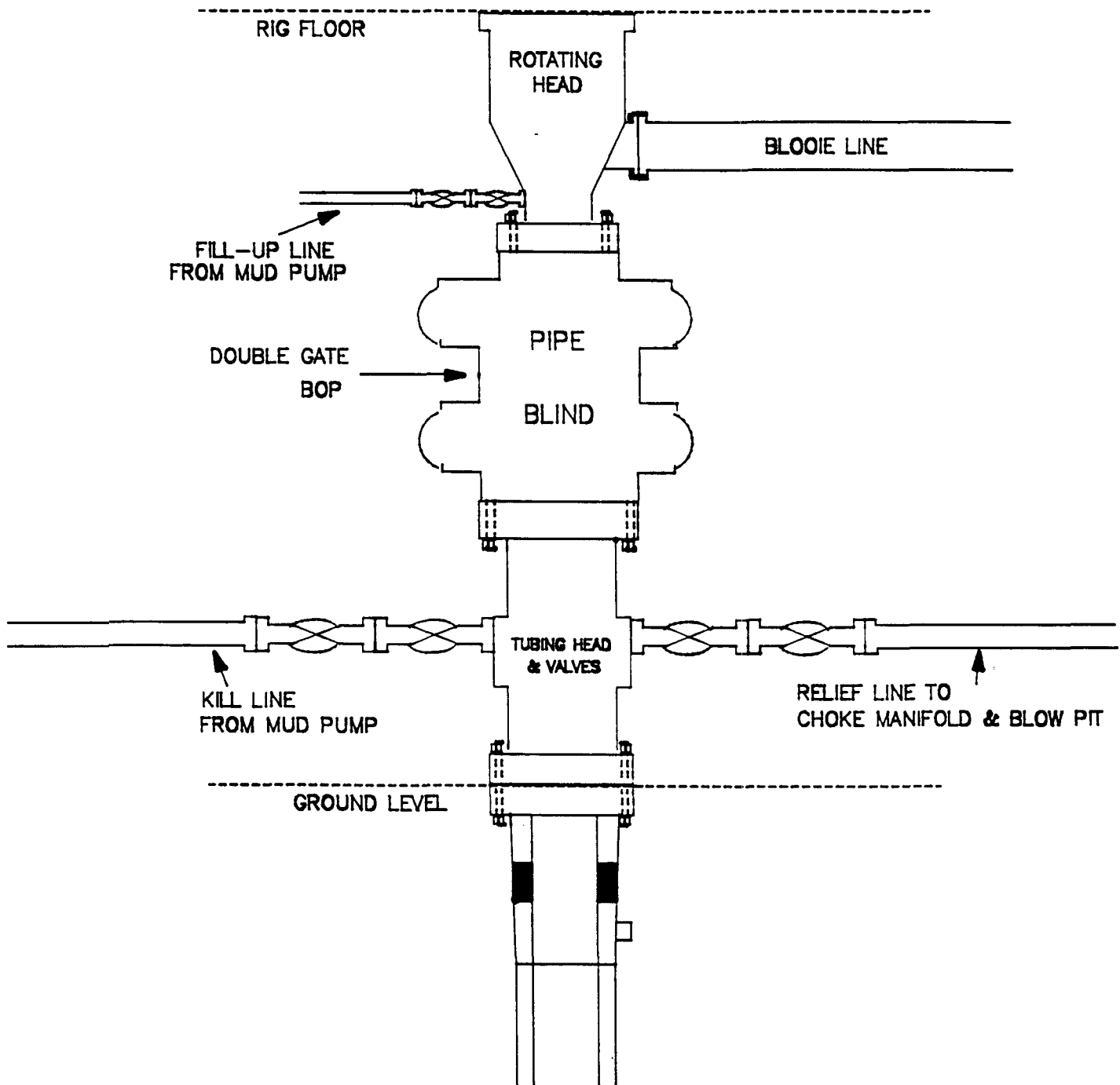
11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

MERIDIAN OIL INC.

BOP Configuration

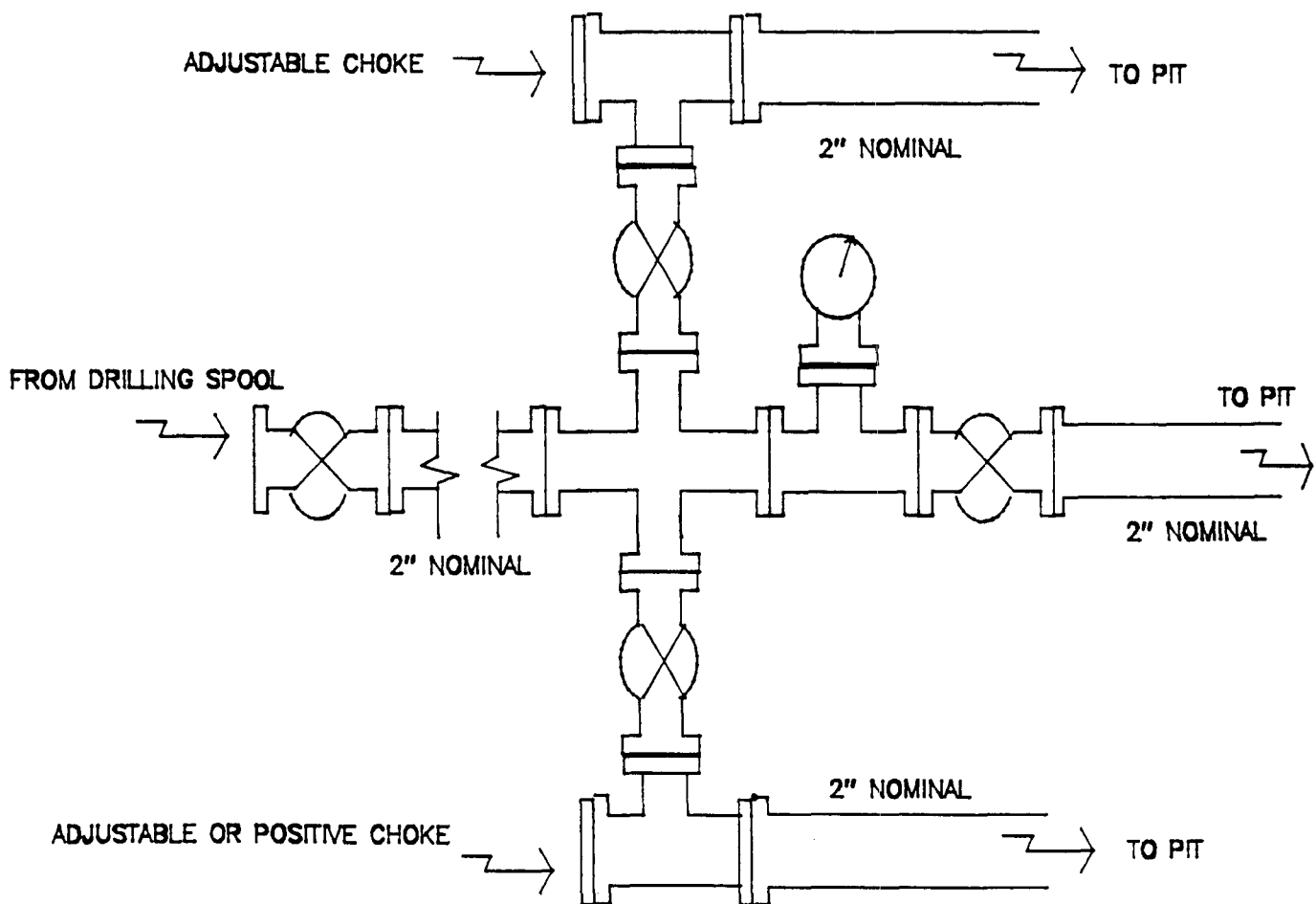
2M psi SYSTEM



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
San Juan 28-5 Unit #230
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 San Juan 27-5 Water Well #1 located NE/4 Section 3, T-27-N, R-5-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.

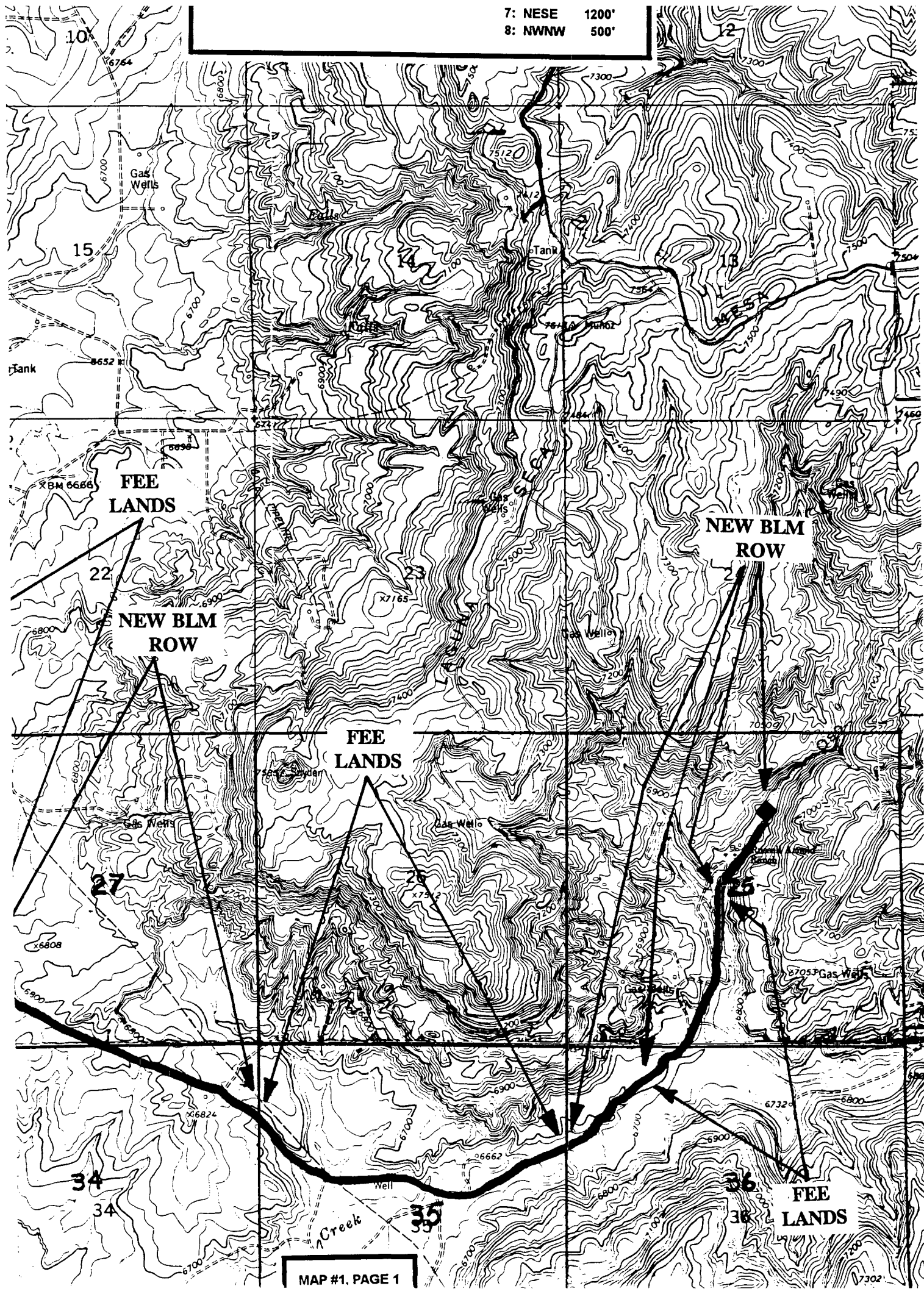
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be 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) 328-9700. 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.

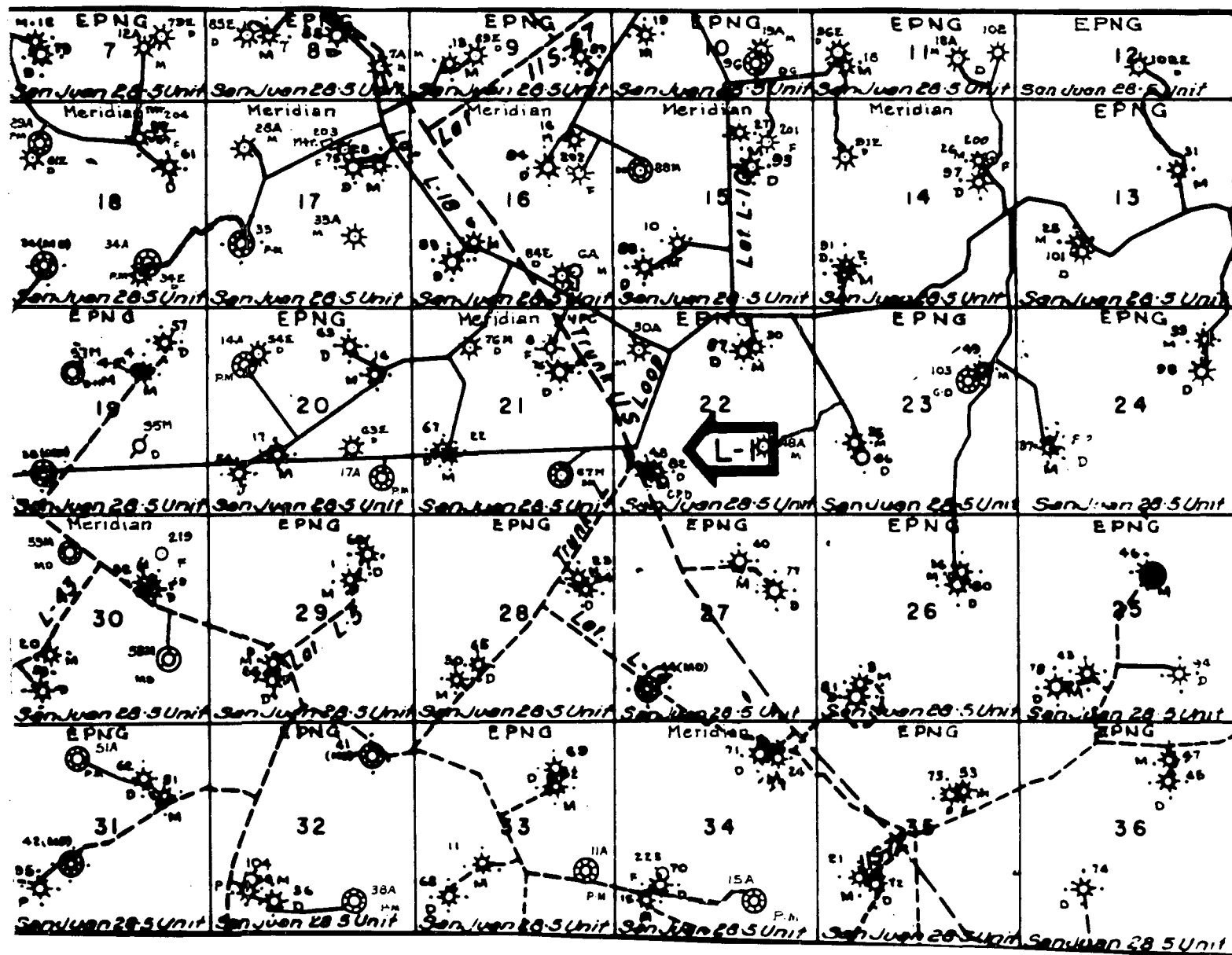

Regional Drilling Engineer

9/21/93
Date

JWC:pb

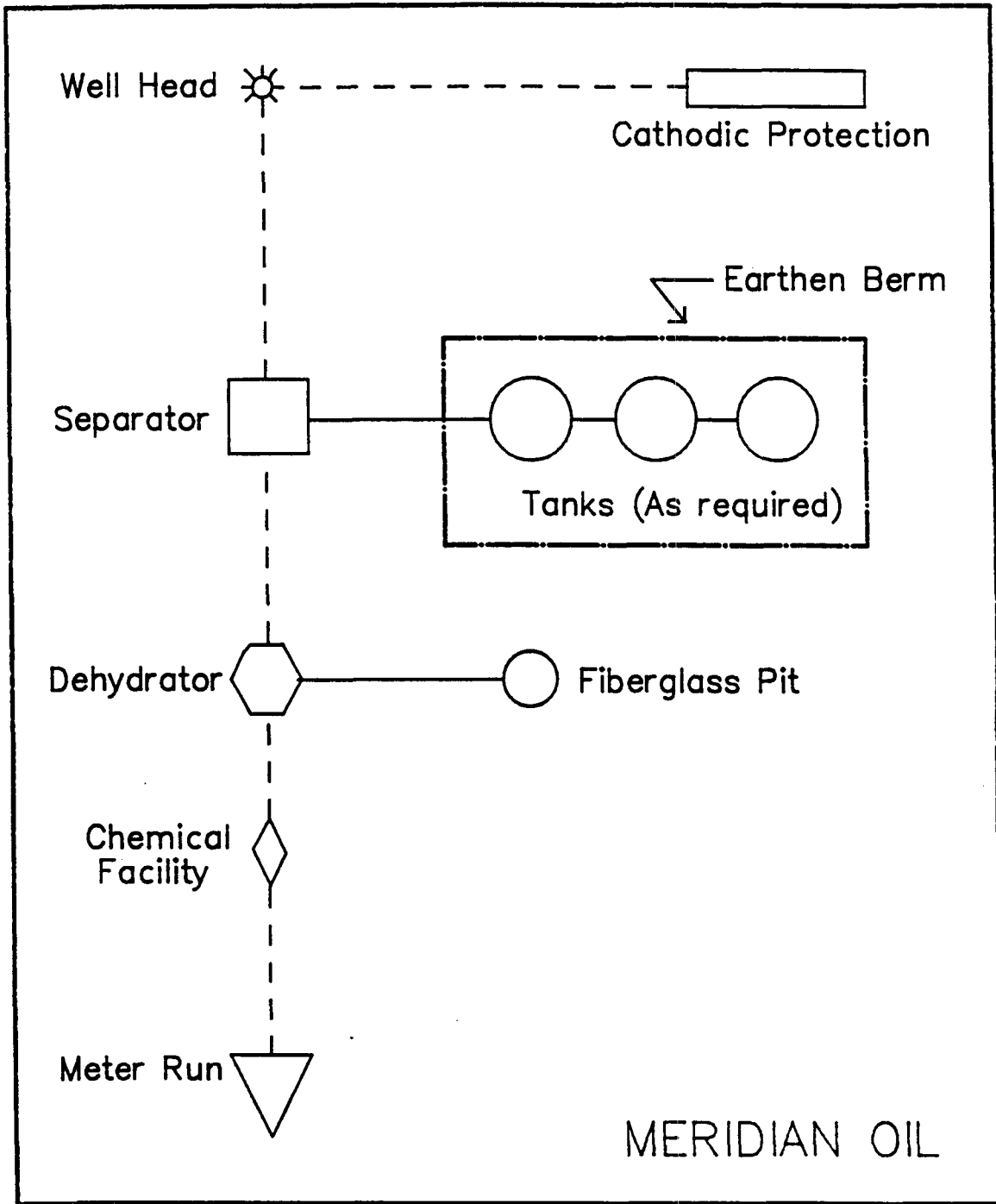
7: NESE 1200'
8: NWNW 500'





MERIDIAN OIL INC.
 Pipeline Map
 T-28-N, R-05-W
 San Juan County, New Mexico
 San Juan 28-5 Unit #230
 Map #1A

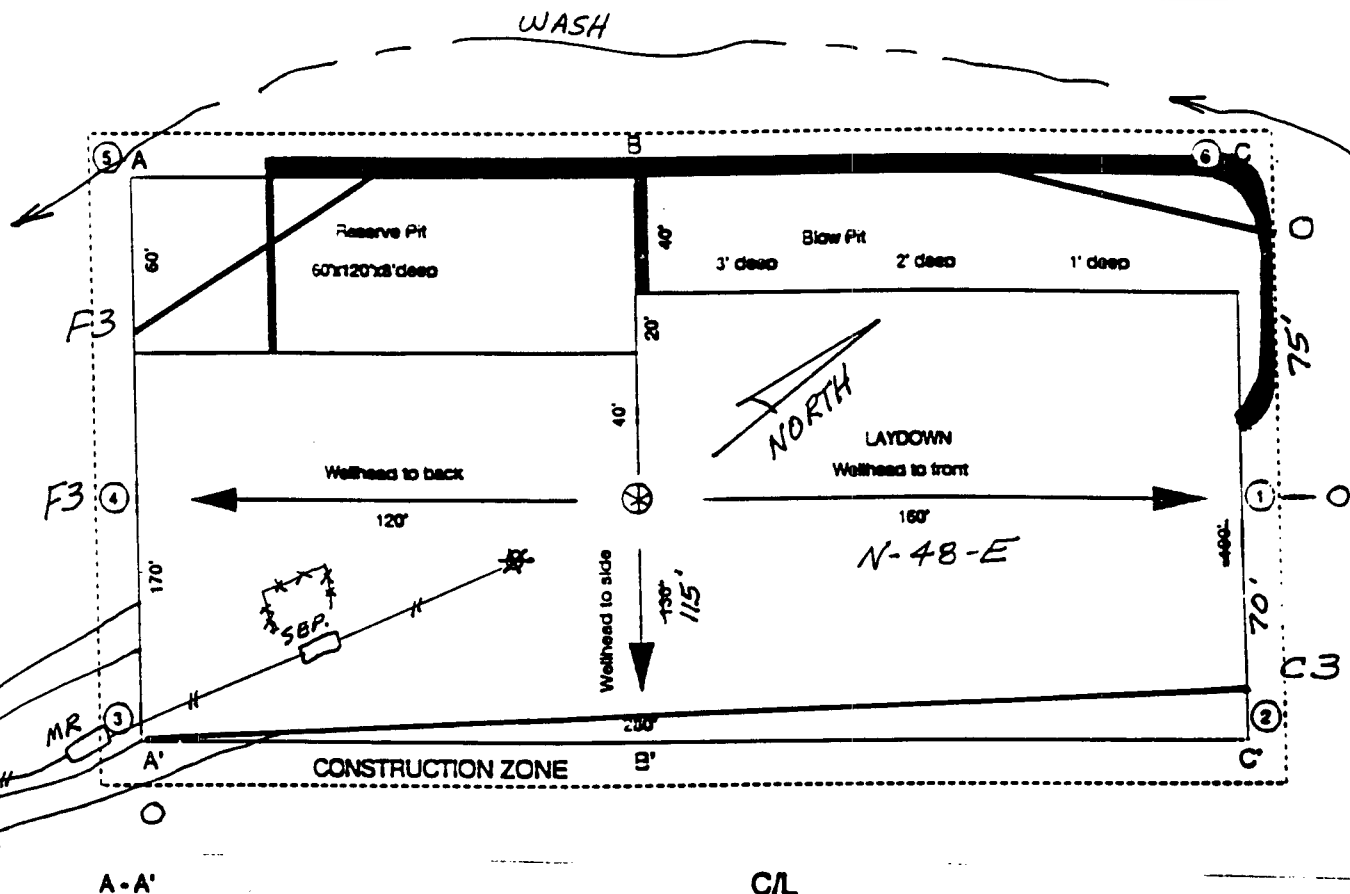
Well Pad Boundary



ANTICIPATED
PRODUCTION FACILITIES
FOR A
FRUITLAND COAL/PICTURED CLIFFS COMMINGLED WELL

Plat 2

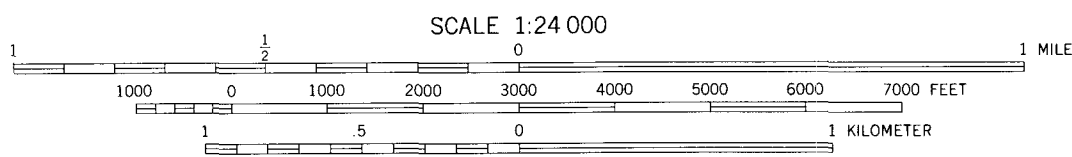
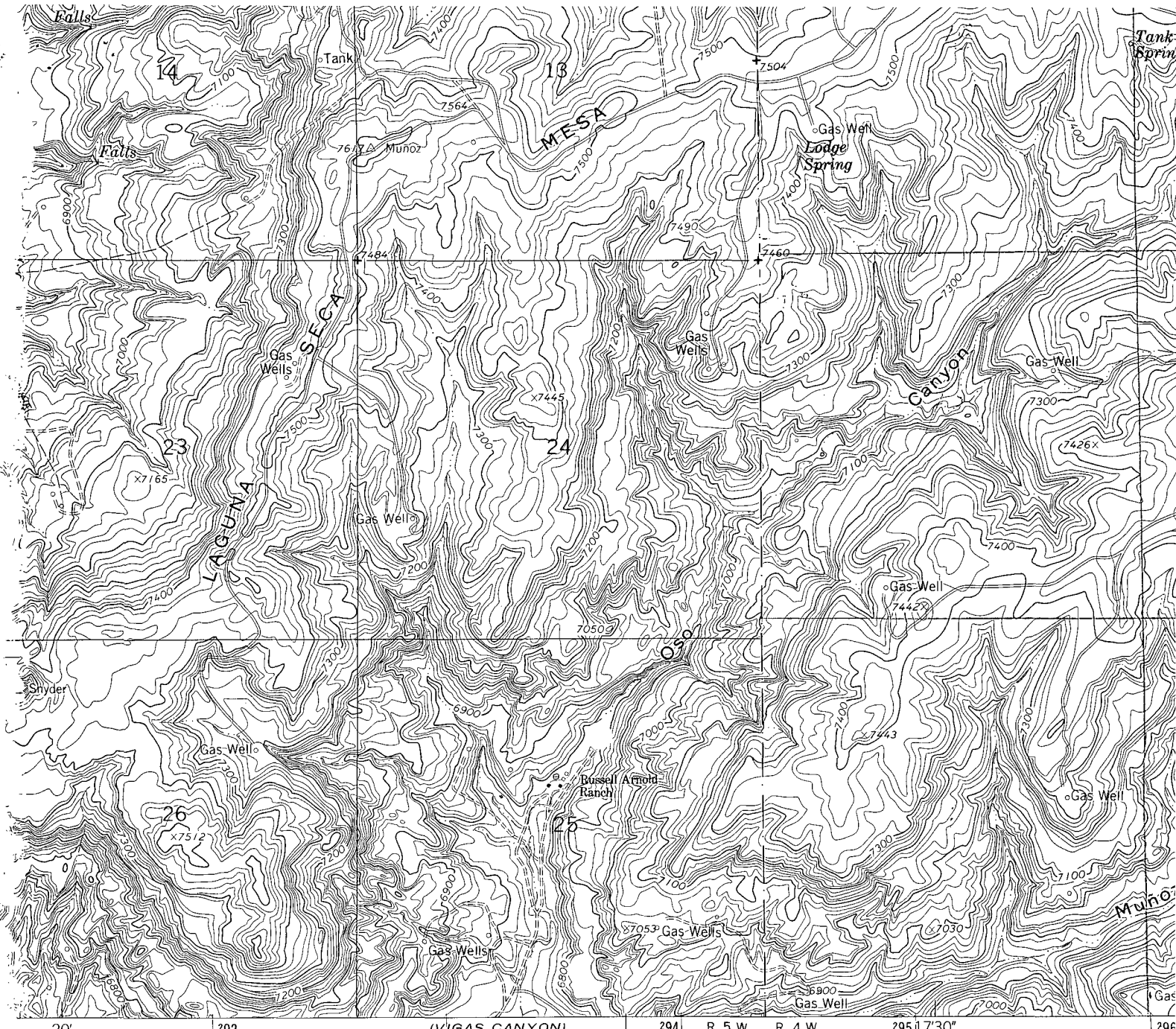
WASH



A-A'	CL				
6785					
6775					
6765					

B-B'	C/L				
6785					
6775					
6765					

C-C'	C/L
6785	
6775	
6765	



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

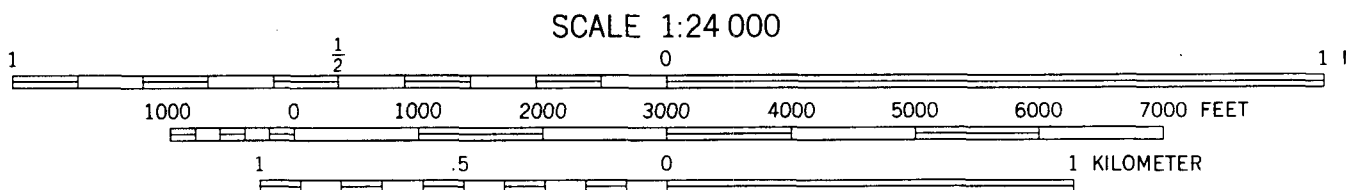
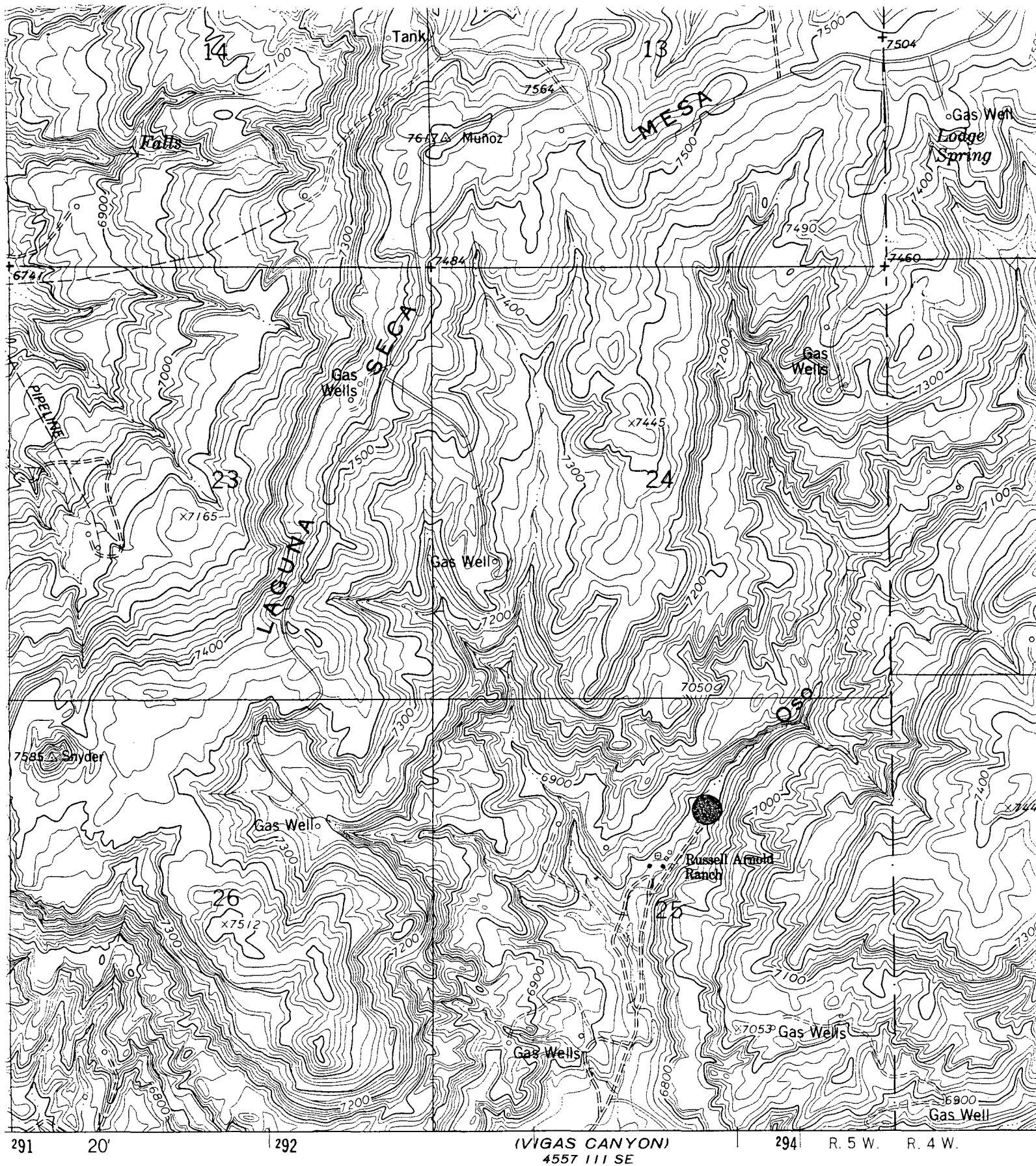


QUADRANGLE L

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Revisions shown in photographs taken 1 field check by U.S.

ORTH
ET
im 1933
s



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Submit to Albuquerque
District Office
State Leases - 4 copies
Fee Leases - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-182
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, 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 Meridian Oil Inc.		Lease San Juan 28-5 Unit		Well No. 230
Unit Letter B	Section 25	Township 28 North	Range 5 West	County Rio Arriba
Actual Footage Location of Well: 1290 feet from the North line and 2314 feet from the East line				
Ground level Elev. 6775'	Producing Formation Fruitland Coal/Pic.Cliffs	Pool Basin/So. Blanco	Dedicated Acreage 344.64/184.64 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).

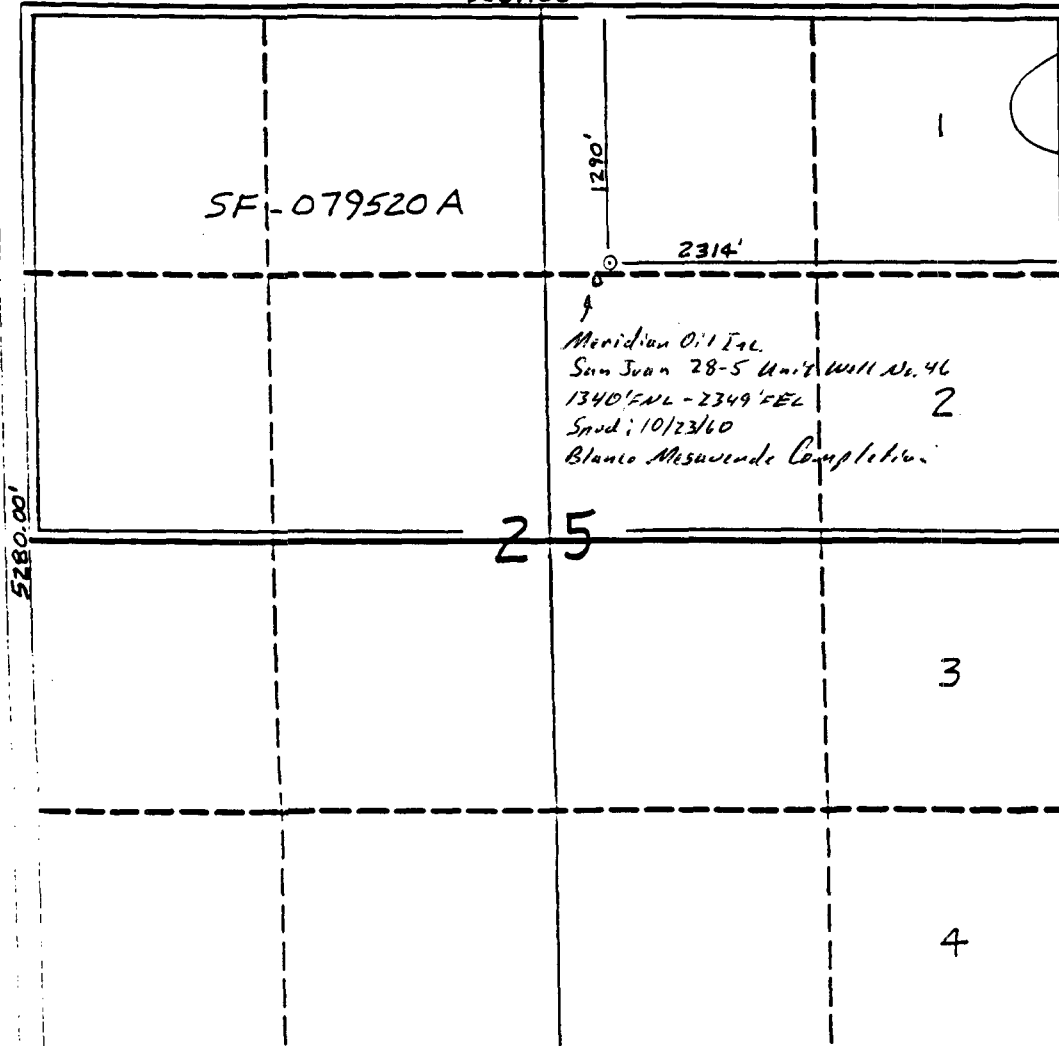
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, forced-pooling, etc.?

☒ Yes ☐ No If answer is "yes" type of consolidation- unitization

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

No allocations will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-allocated unit, eliminating such interest, has been approved by the Division.

5687.88'



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

9-20-93

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 and correct to the best of my knowledge and belief.

3-12-93
Date Surveyed
C. EDWARDS
Needle

Signature of State or Professional Surveyor

19857

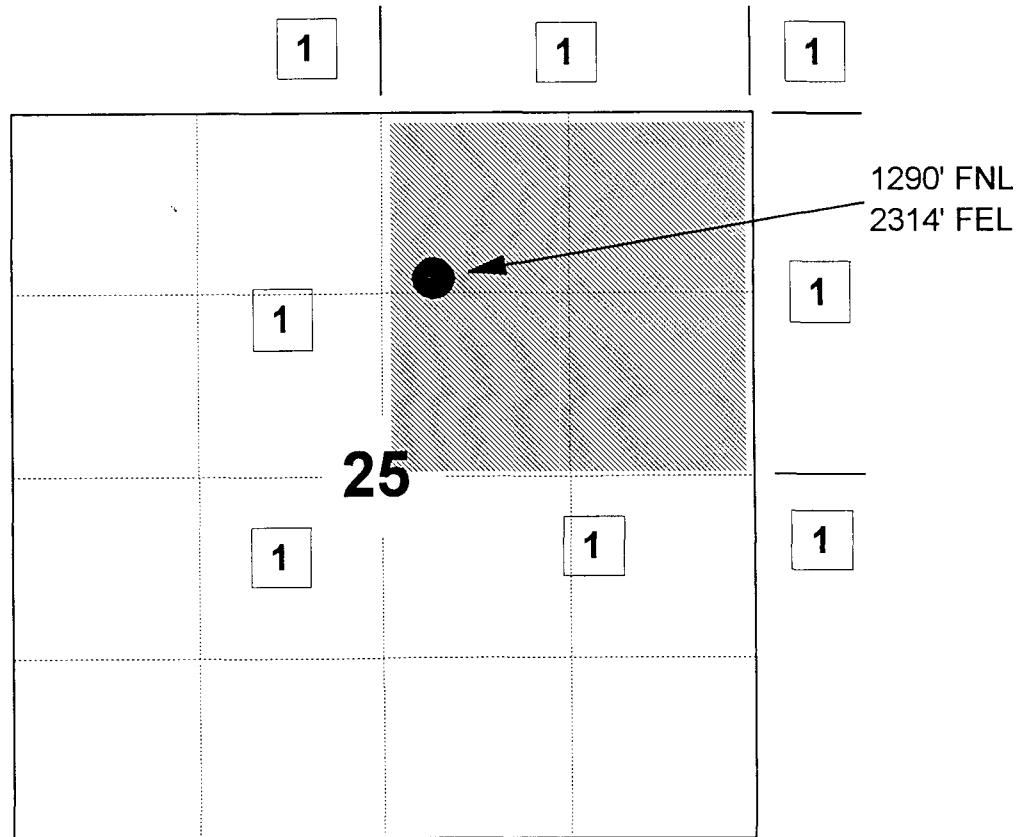
MERIDIAN OIL INC

SAN JUAN 28-5 UNIT #230

OFFSET OPERATOR \ OWNER PLAT

Unorhtodox Pictured Cliffs Well Location

Township 28 North, Range 5 West



1) Meridian Oil Inc

Sec : 25 Twp : 28N Rng : 05W Section Type : NORMAL

D 40.00 Federal owned	C 40.00 Federal owned	B 40.00 Federal owned	1 52.34 Federal owned
E 40.00 Federal owned	F 40.00 Federal owned	G 40.00 Federal owned A	2 52.30 Federal owned

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06
PF07 BKWD PF08 FWD PF09 PRINT PF10 SDIV PF11 PF12

52.34
52.30
104.64
~~18~~
~~224.64~~
184.64

CMR
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

03/03/94 07:54:49
OGOMES -EMAV
PAGE NO: 2

Sec : 25 Twp : 28N Rng : 05W Section Type : NORMAL

L 40.00 Federal owned	K 40.00 Fee owned	J 40.00 Fee owned	3 52.26 Federal owned
M 40.00 Federal owned	N 40.00 Fee owned	O 40.00 Federal owned	4 52.22 Federal owned
A	A		A

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12