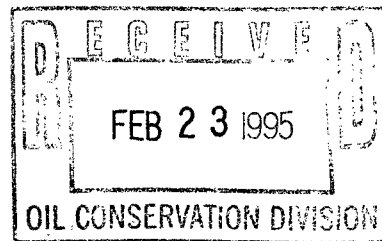


MERIDIAN OIL



NSL-2PLS. 7

February 21, 1995

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87504

Re: Meridian Oil Inc. Canyon Largo Unit #428
1475'FNL, 1475'FEL Section 13, T-25-N, R-7-W - Rio Arriba County, New Mexico
API # 30-039-not yet assigned

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Devils Fork Gallup Associated and Basin Dakota formations. This location would extend the Devils Fork Gallup Associated Pool. This application for the referenced location is to place the location on an unused existing well pad, thereby not creating any further surface disturbance in the grazing lands at the request of the grazing permittee and the Bureau of Land Management. This location is also for archaeological considerations.

This well will be drilled and dually completed as a Devils Fork Gallup Associated and Basin Dakota 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 Gallup and Dakota, and enlargement of the map to define topographic features.

*Basin Dakota is
155' from the
2 closest inner
boundaries
appears to
be standard.*

Meridian Oil is the operator of the Canyon Largo Unit. It is planned to drill this well early in the second quarter of 1995. Therefore, your prompt consideration of this request is greatly appreciated.


Sincerely,

A handwritten signature in cursive script that reads "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-078880 Unit Reporting Number NMSF078880
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator MERIDIAN OIL	7. Unit Agreement Name Canyon Largo Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Canyon Largo Unit 9. Well Number 428
4. Location of Well 1475' FNL, 1475' FEL Latitude 36° 24' 08", Longitude 107° 31' 19"	10. Field, Pool, Wildcat Devils Fork Gallup/ Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec 13, T-25-N, R-7-W API # 30-039-
14. Distance in Miles from Nearest Town	12. County Rio Arriba
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1475'	
16. Acres in Lease	17. Acres Assigned to Well 320 E/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 2500'	
19. Proposed Depth 7410'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6895' GR	22. Approx. Date Work will Start 2nd quarter 1995
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by:  Regional Drilling Engineer	<u>1/10/95</u> Date

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

Archaeological Report submitted by Arboles Contract Archaeology Technical Report #663 dated 11-23-94
Threatened and Endangered Species Report submitted by Ecosphere dated 10-25-94
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	17610/71599	Devils Fork Gallup / Basin Dakota
Property Code	Property Name	Well Number
6886	Canyon Largo Unit	428
OGRID No.	Operator Name	Elevation
14538	MERIDIAN OIL INC.	6895'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
G	13	25 N	7 W		1475	North	1475	East	R.A.

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
E/320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16	5176.38	17 OPERATOR CERTIFICATION
<i>Handwritten:</i> 1475 790 2265 0 PL 5188.92 1475 1320 155 13 5196.84	<i>Handwritten:</i> 640-acre Section 1475 1475 SF-078880 0 PL	<i>Handwritten:</i> Peggy Bradfield Signature Peggy Bradfield Printed Name Regulatory Affairs Title 1-9-95 Date 10-3-94 Date of Survey Signature and Seal of Professional Approver NEE C. EDWARDS 8857 6857 Certificate Number

OPERATIONS PLAN

Well Name: Canyon Largo Unit #428
Location: 1475'FNL, 1475'FEL Section 13, T-25-N, R-7-W
 Rio Arriba County, New Mexico
 Latitude 36° 24' 08", Longitude 107° 31' 19"
Formation: Devils Fork Gallup/Basin Dakota
Elevation: 6895'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2070'	
Ojo Alamo	2070'	2200'	aquifer
Kirtland	2200'	2620'	
Fruitland	2620'	2820'	gas
Pictured Cliffs	2820'	2900'	gas
Lewis	2900'	3620'	
Chacra	3620'	4310'	
Massive Cliff House	4310'	4375'	
Menefee	4375'	5040'	
Massive Pt. Lookout	5040'	5300'	gas
Mancos	5300'	6120'	
Gallup	6120'	6990'	gas & oil
Greenhorn	6990'	7040'	gas & oil
Graneros	7040'	7070'	
Dakota	7070'	7300'	gas
Burro Canyon/Encinal	7300'	7400'	gas
Morrison	7400'		salt water
Total Depth	7410'		

Logging Program:

Mud Logs/Coring/DST -
 Mud logs - 6075' to TD.
 Coring - none
 DST - none
 Electric logs - DIL/SP/GR; Density/Neut/GR; Microlog-GR;

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 320'	Spud	8.4-8.9	40-50	no control
320-7410'	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' - 320'	8 5/8"	24.0#	K-55
7 7/8"	0' - 7410'	5 1/2"	17.0#	K-55

Tubing Program:

0' - 7410'	1 1/2"	2.9#	N-80	EUE
0' - 5940'	1 1/2"	2.76#	J-55	IJ

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" 2000 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 5 1/2" x 1 1/2" dual 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/336 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (396 cu.ft. of slurry, 200% 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 - 5 1/2"

First Stage: Cement to circulate to stage tool @ 5300'. Lead w/314 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: 640 cu.ft. Excess slurry 75%.)

Second Stage: Cement to circulate to stage tool @ 2520'. Lead w/428 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: 843 cu.ft. Excess slurry: 75%.)

Third Stage: Cement to circulate to surface. Cement w/445 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: 873 cu.ft. Excess slurry: 100%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-three centralizers - one every 4th joint to the base of the Ojo Alamo @ 2200'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2200'. 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.

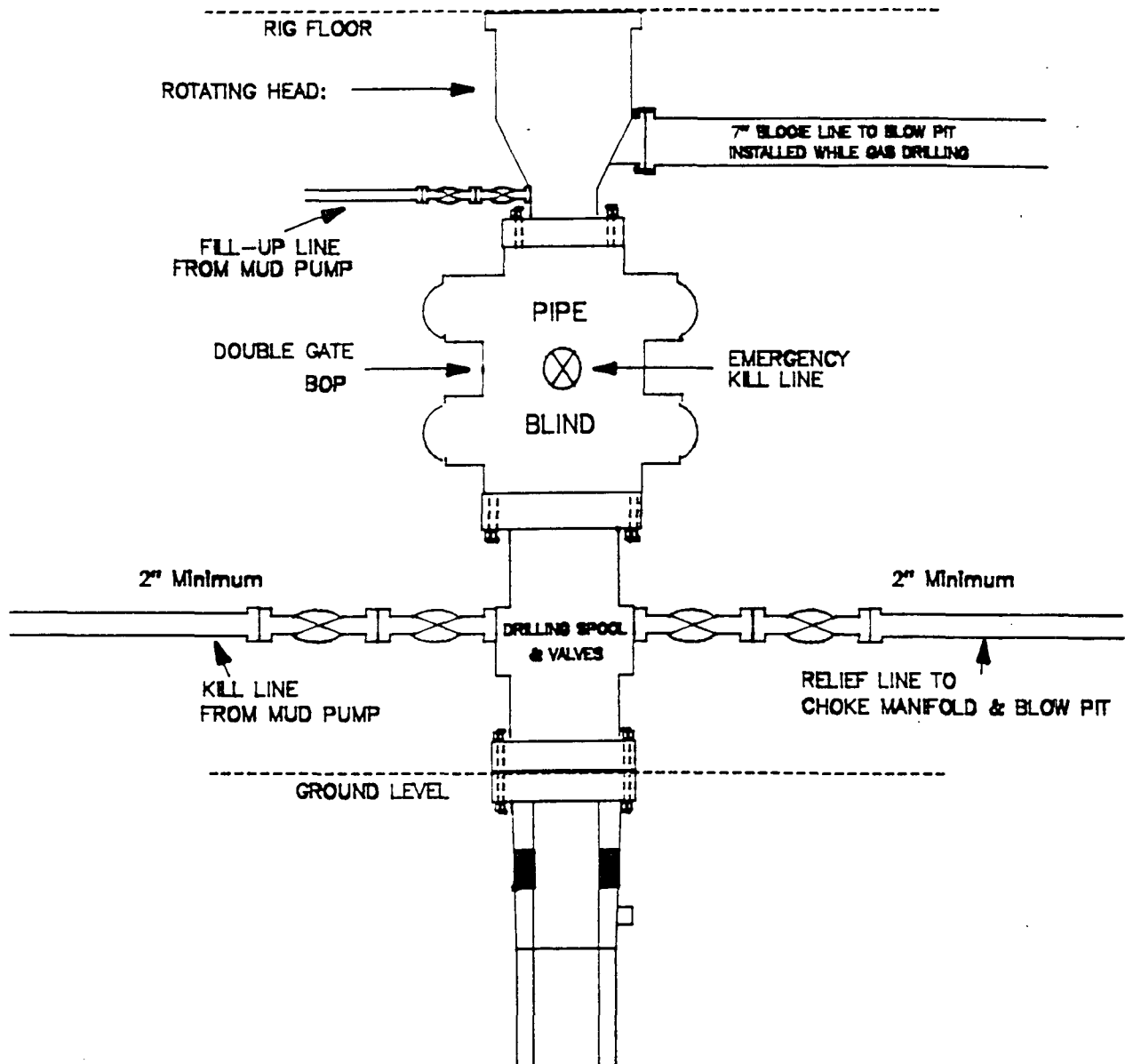
Additional Information:

- The Gallup and Dakota formations will be dually completed.
- 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 east half of the Section is dedicated to this well.
- This gas is dedicated.
- New casing will be utilized.
- Anticipated pore pressure for Pictured Cliffs and Fruitland Coal is 300 psi.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

MERIDIAN OIL INC.

BOP Configuration

2M psi SYSTEM

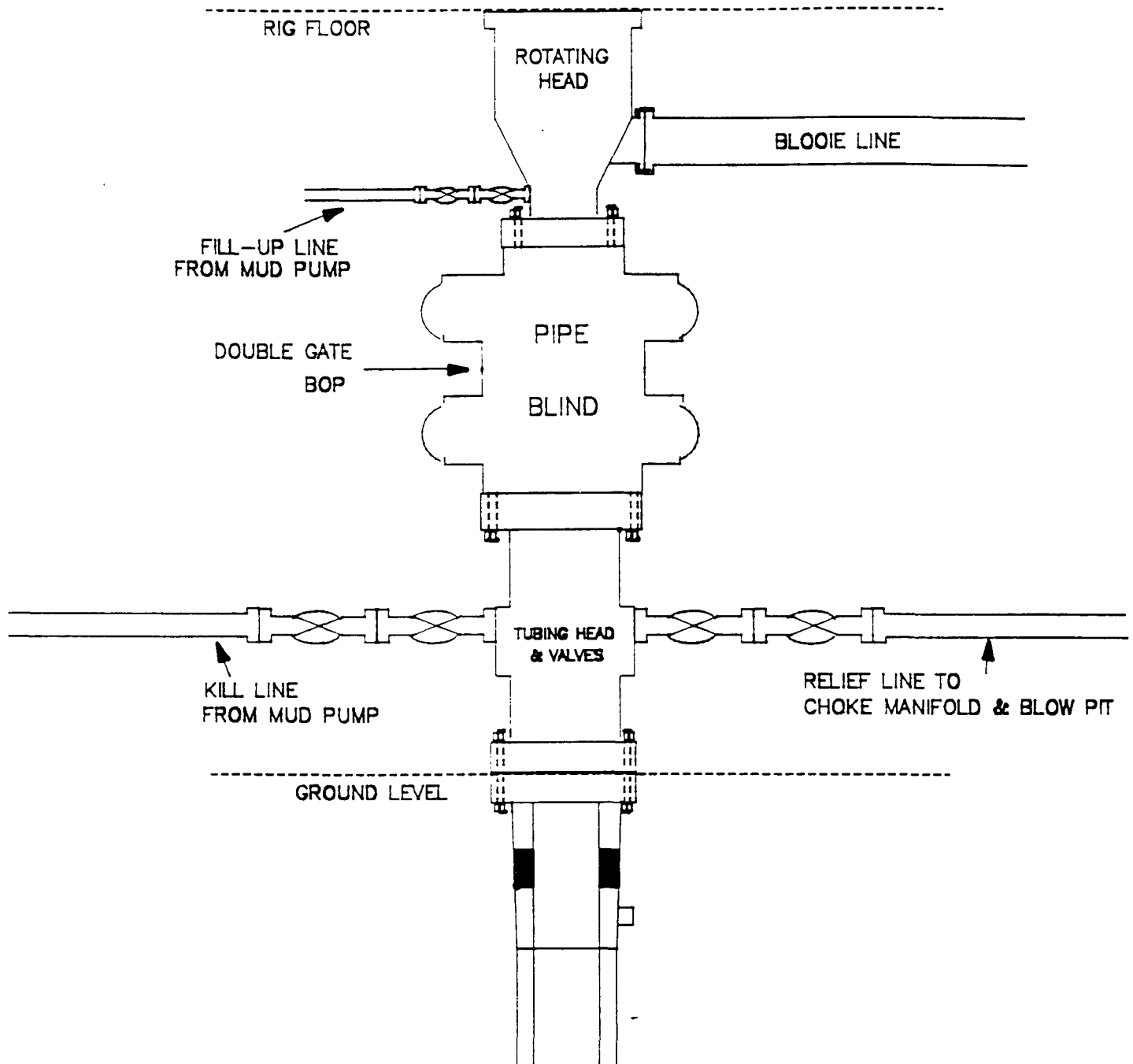


11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

MERIDIAN OIL INC.

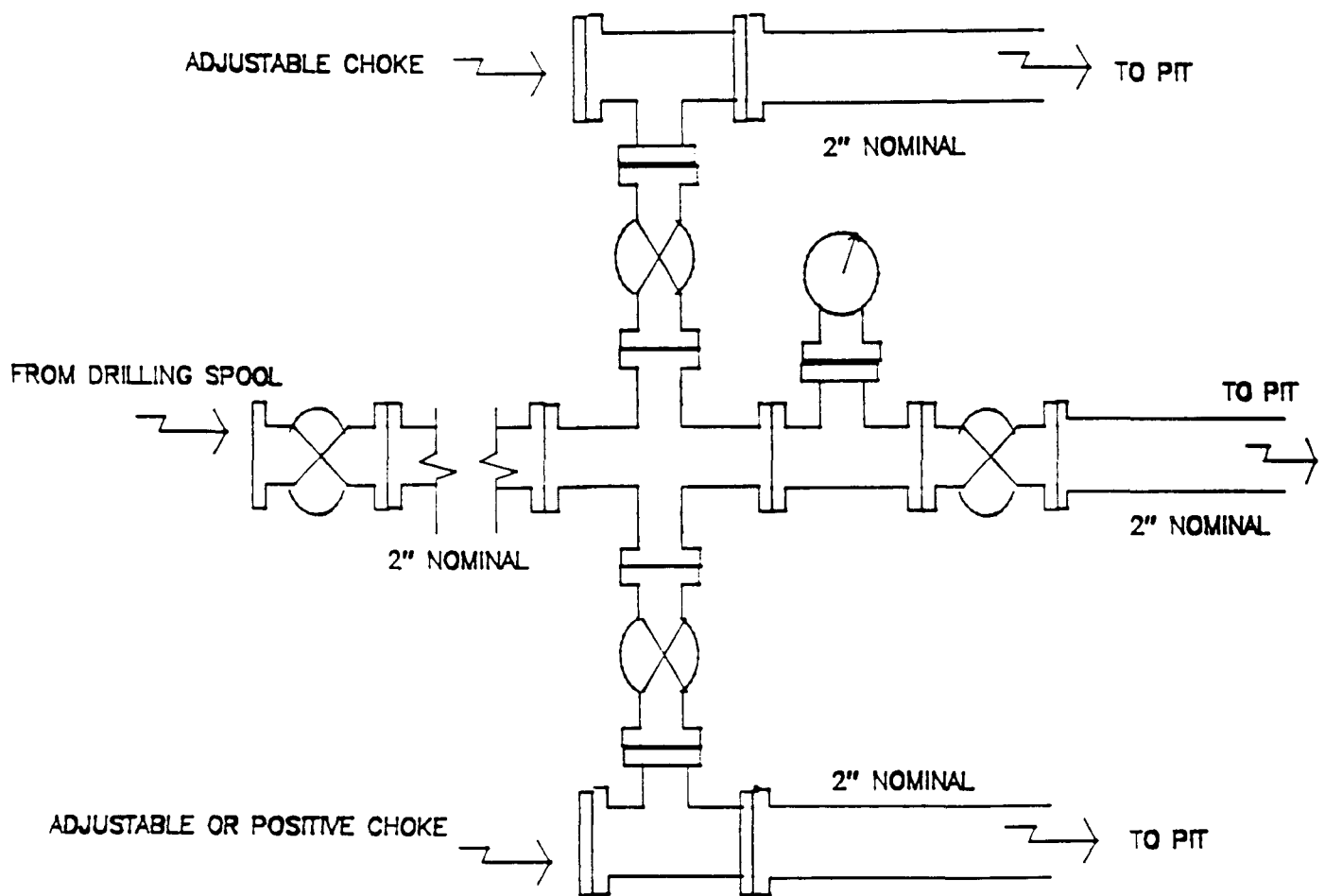
BOP Configuration
2M psi SYSTEM



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
Canyon Largo Unit #428
Multi-Point Surface Use Plan

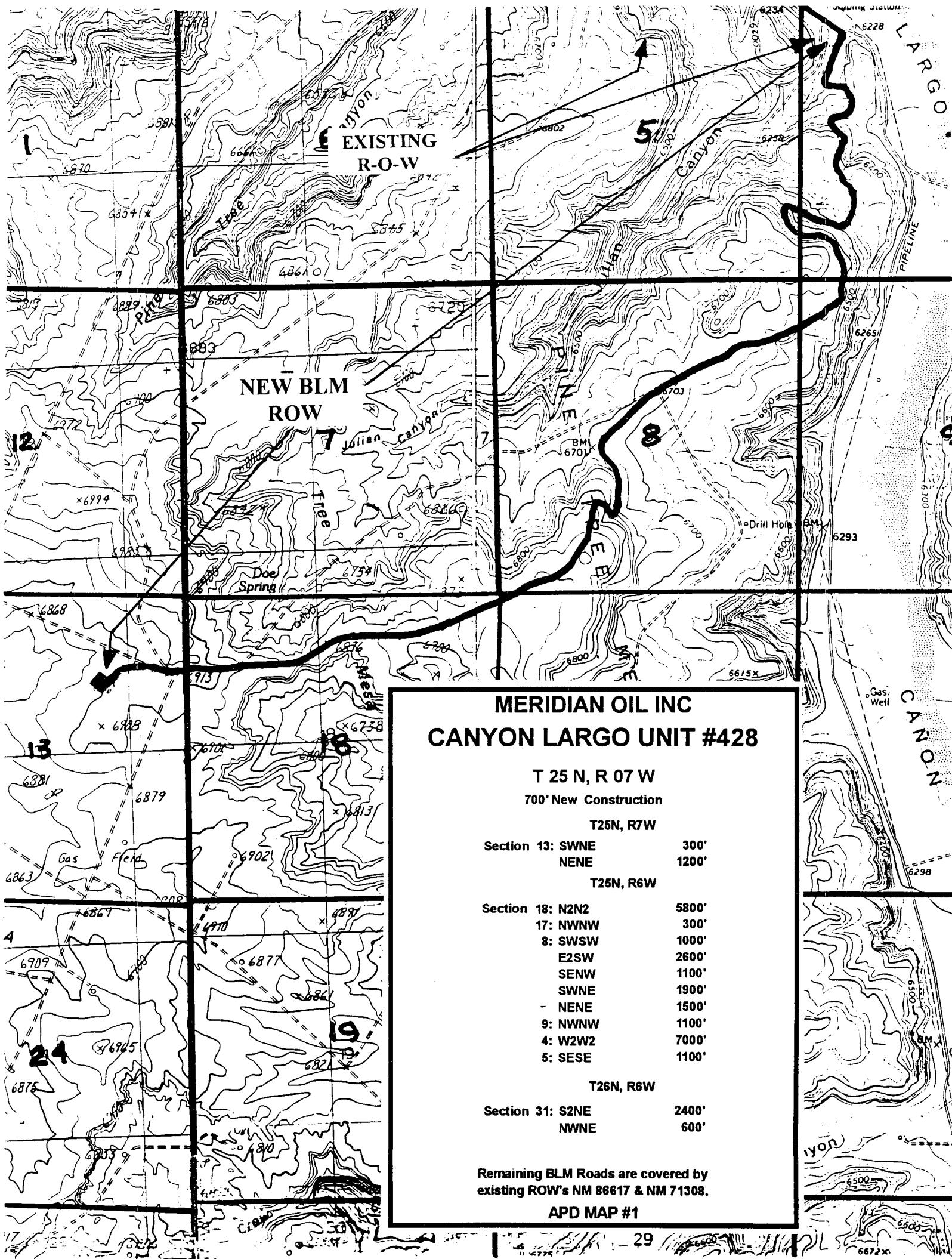
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access 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 700' 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 Superior Water Hole #1 located NW Section 4, T-25-N, R-6-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

1/10/95
Date

JWC:pb



MERIDIAN OIL INC
CANYON LARGO UNIT #428

T 25 N, R 07 W
700' New Construction

T25N, R7W

Section 13: SWNE	300'
NENE	1200'

T25N, R6W

Section 18: N2N2	5800'
17: NWNW	300'
8: SWSW	1000'
E2SW	2600'
SENE	1100'
SWNE	1900'
NENE	1500'
9: NWNW	1100'
4: W2W2	7000'
5: SESE	1100'

T26N, R6W

Section 31: S2NE	2400'
NWNE	600'

Remaining BLM Roads are covered by
existing ROW's NM 86617 & NM 71308.

APD MAP #1

MERIDIAN OIL INC.

Pipeline Map

T-25-N, R-07-W

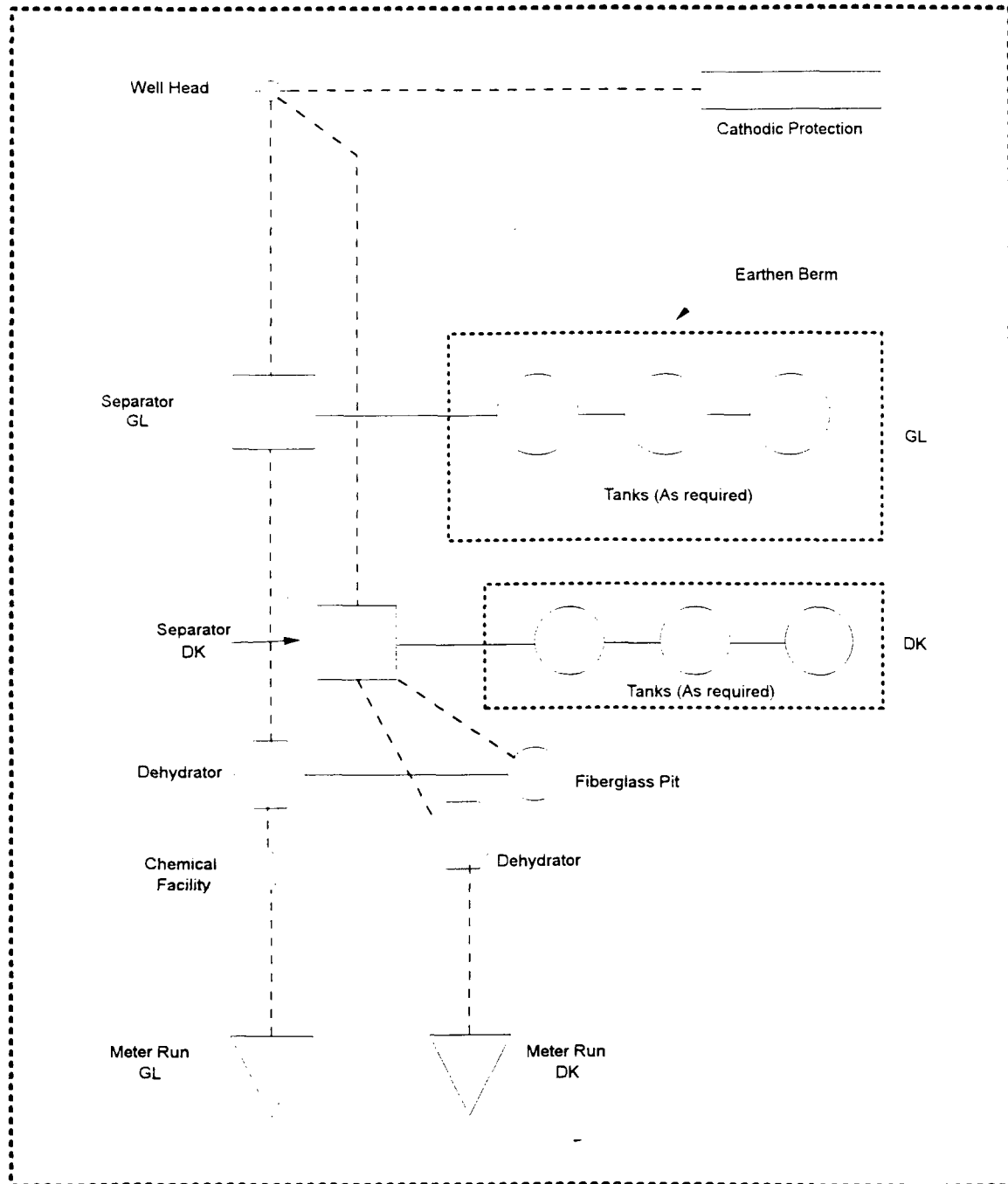
Rio Arriba County, New Mexico

Canyon Largo Unit #428

Map #1A

MERIDIAN OIL INC.

Well Pad Boundary



ANTICIPATED PRODUCTION FACILITIES
FOR A GALLUP/DAKOTA
DUAL WELL

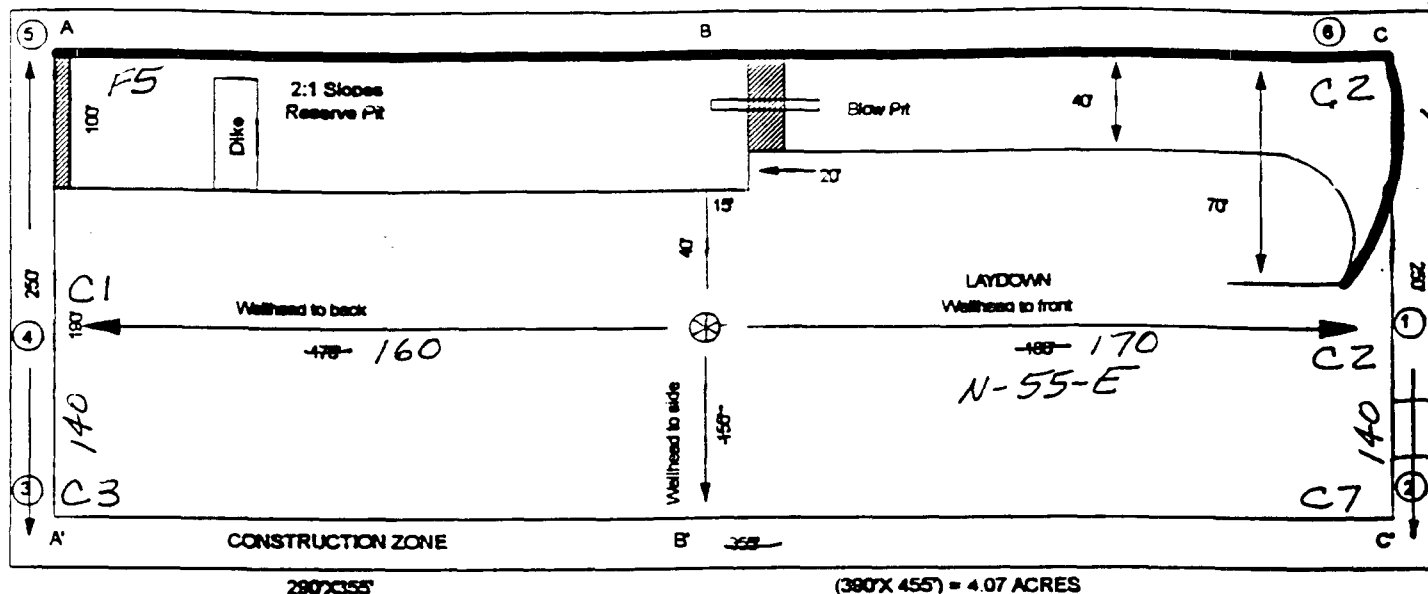
MERIDIAN OIL

PLAT #2

FC HIGH POTENTIAL

ALL MV / ALL DK

NAME: CANYON LARGO UNIT #428
 FOOTAGE: 1475 FNL 1475 FEL
 SEC 13 TWN 25 N.R. 7 W NMPM
 CO: RA ST: NM
 ELEVATION: 6895' DATE: 10-3-94



Reserve Pit Dike: to be 6" above Deep side; (overflow - 3' wide and 1' above shallow side.)

Blow Pit: overflow pipe halfway between top and bottom and extend over plastic liner and into blow pit.

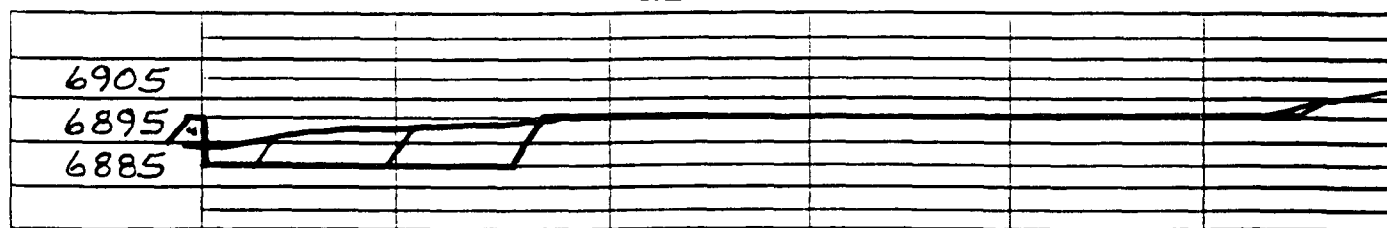
A-A'

C/L



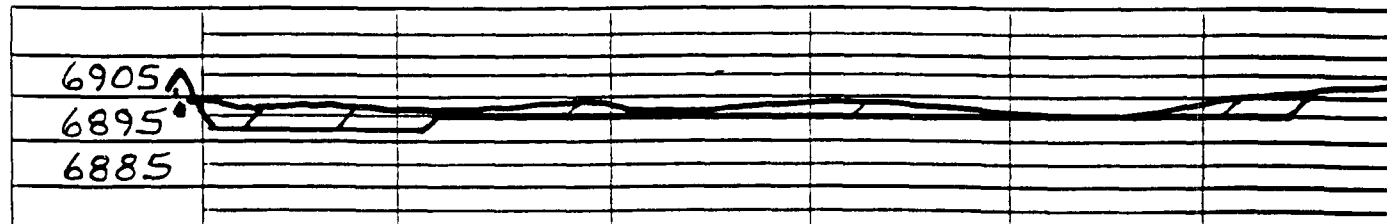
B-B'

C/L

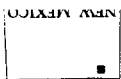


C-C'

C/L



Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least 2 working days prior to construction.

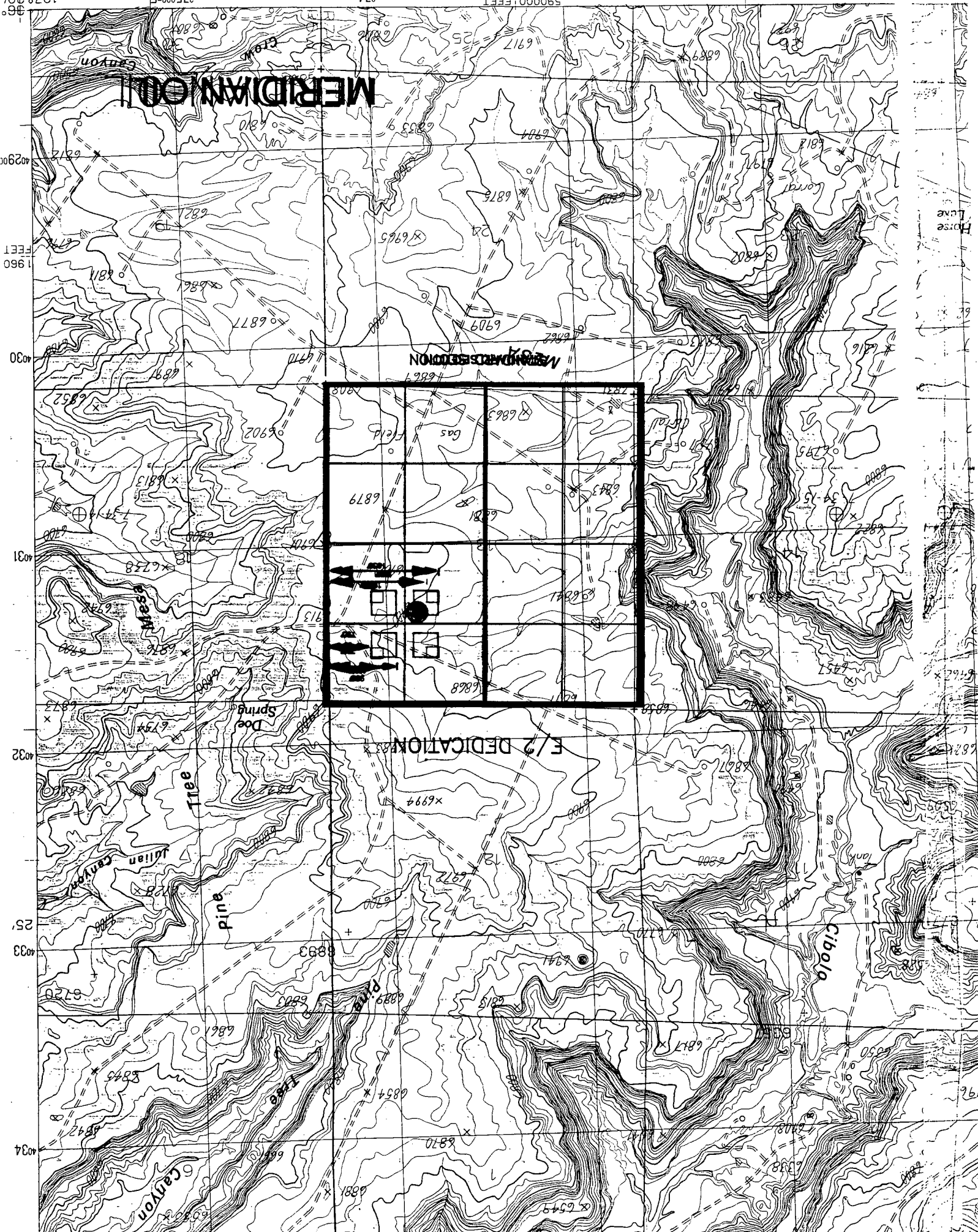


274

590000 FEET

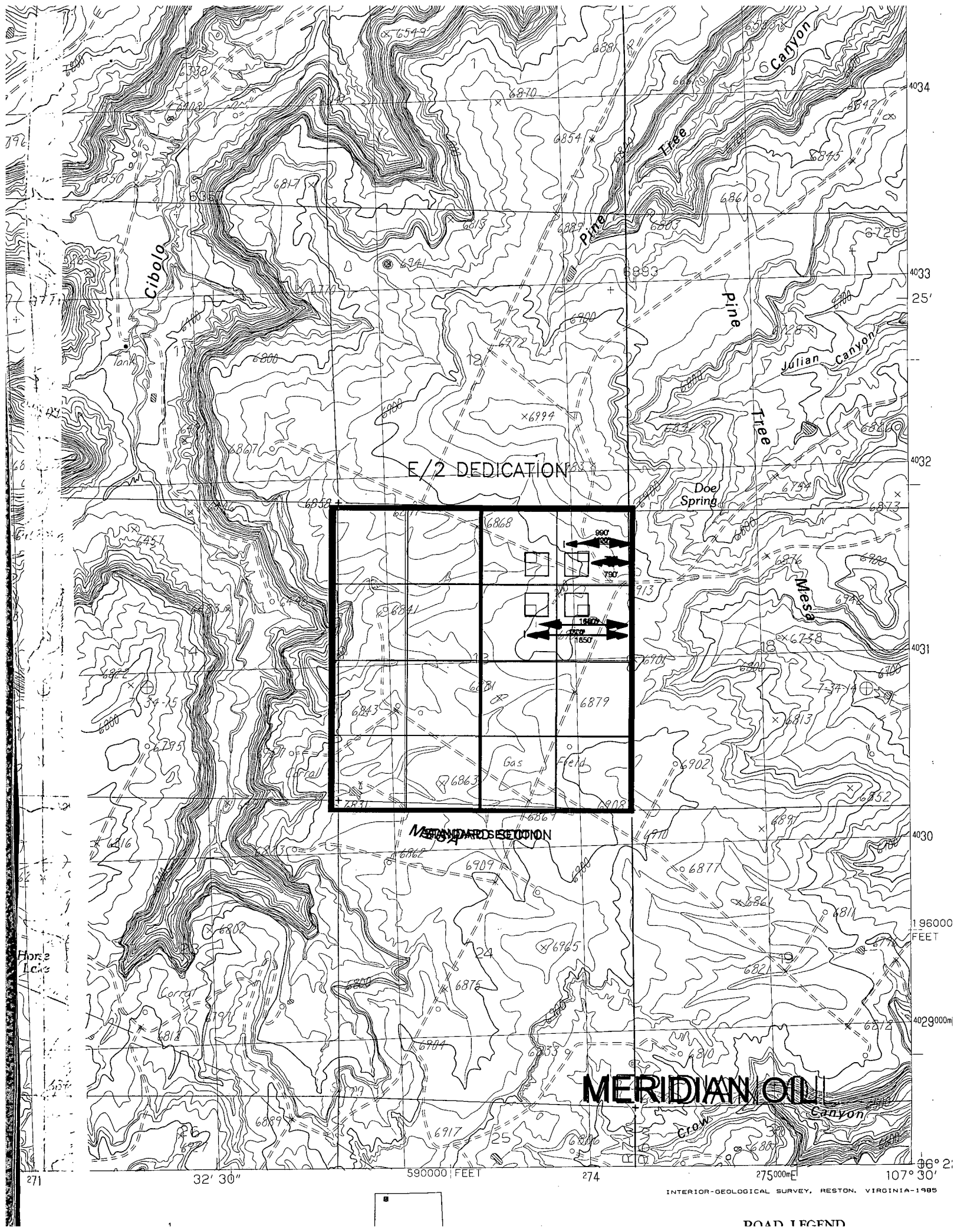
32° 30'

271



Horse
Lane

196



E/2 DEDICATION

STANDARD SECTION

MERIDIAN OIL

274

590000 FEET

32° 30'

27

107° 30'

40290

1960

4030

4031

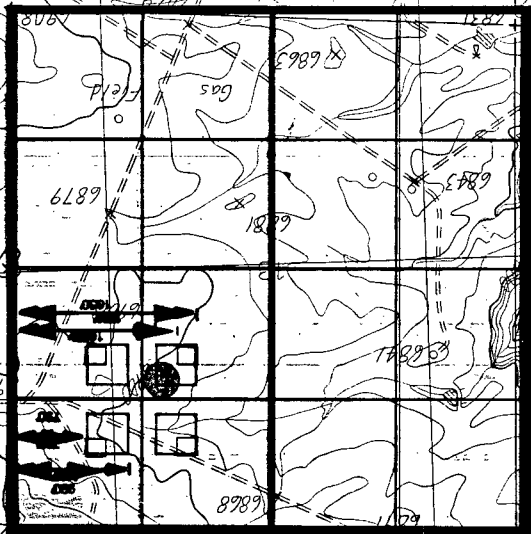
4032

4033

4034

MERIDIAN OIL

MERIDIAN SECTION



E / 2 DEDICATION

Tree

pine

Canyon

Cibola

House

196

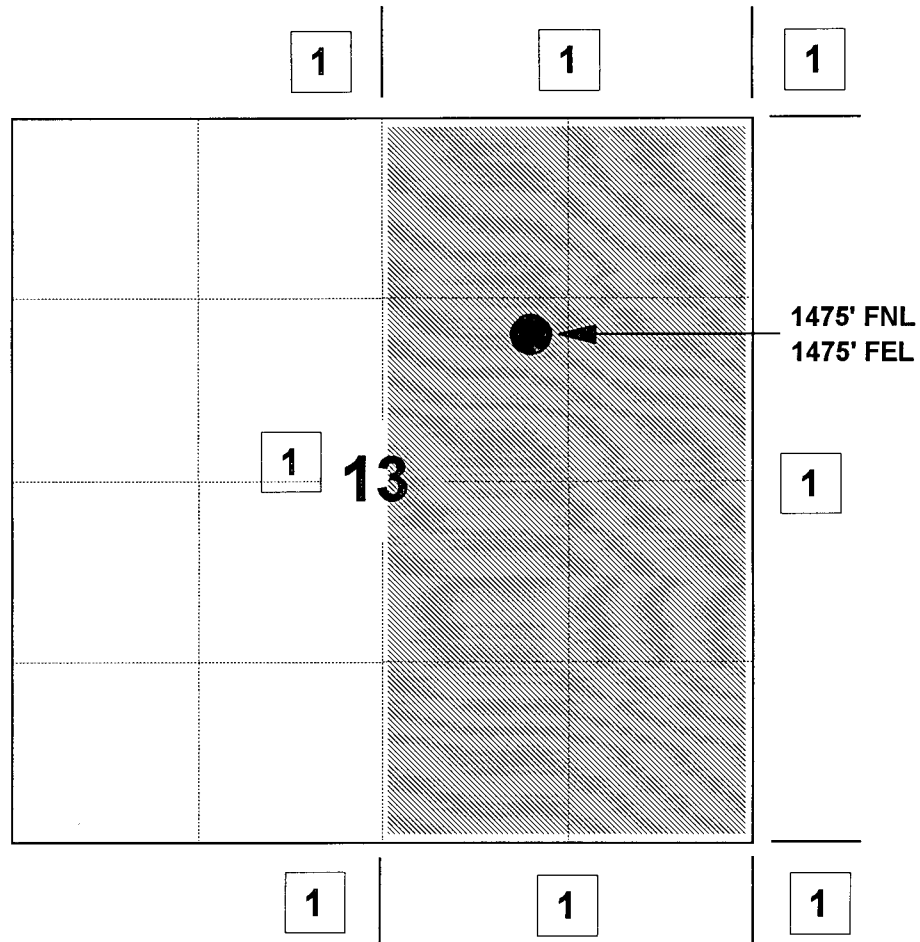
MERIDIAN OIL INC

CANYON LARGO UNIT #428

OFFSET OPERATOR \ OWNER PLAT

Dakota / Gallup Formations Dual Completion Well

Township 25 North, Range 7 West



1) Meridian Oil Inc.

Dakota Formation

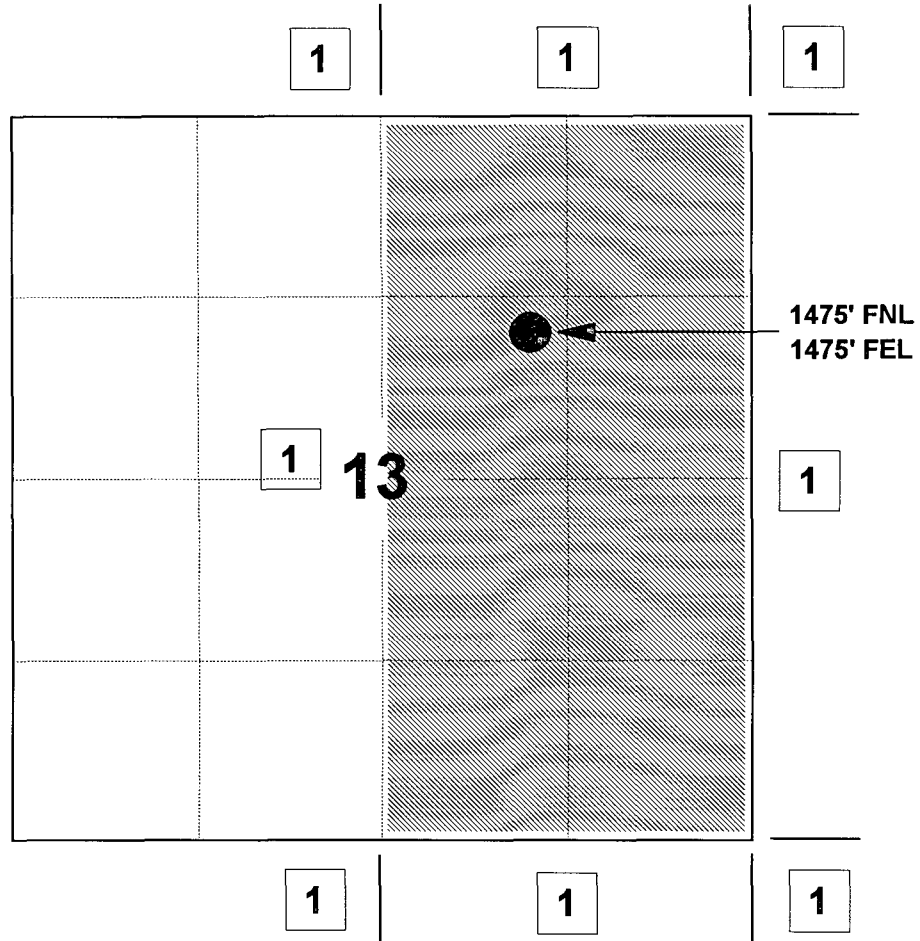
MERIDIAN OIL INC

CANYON LARGO UNIT #428

OFFSET OPERATOR \ OWNER PLAT

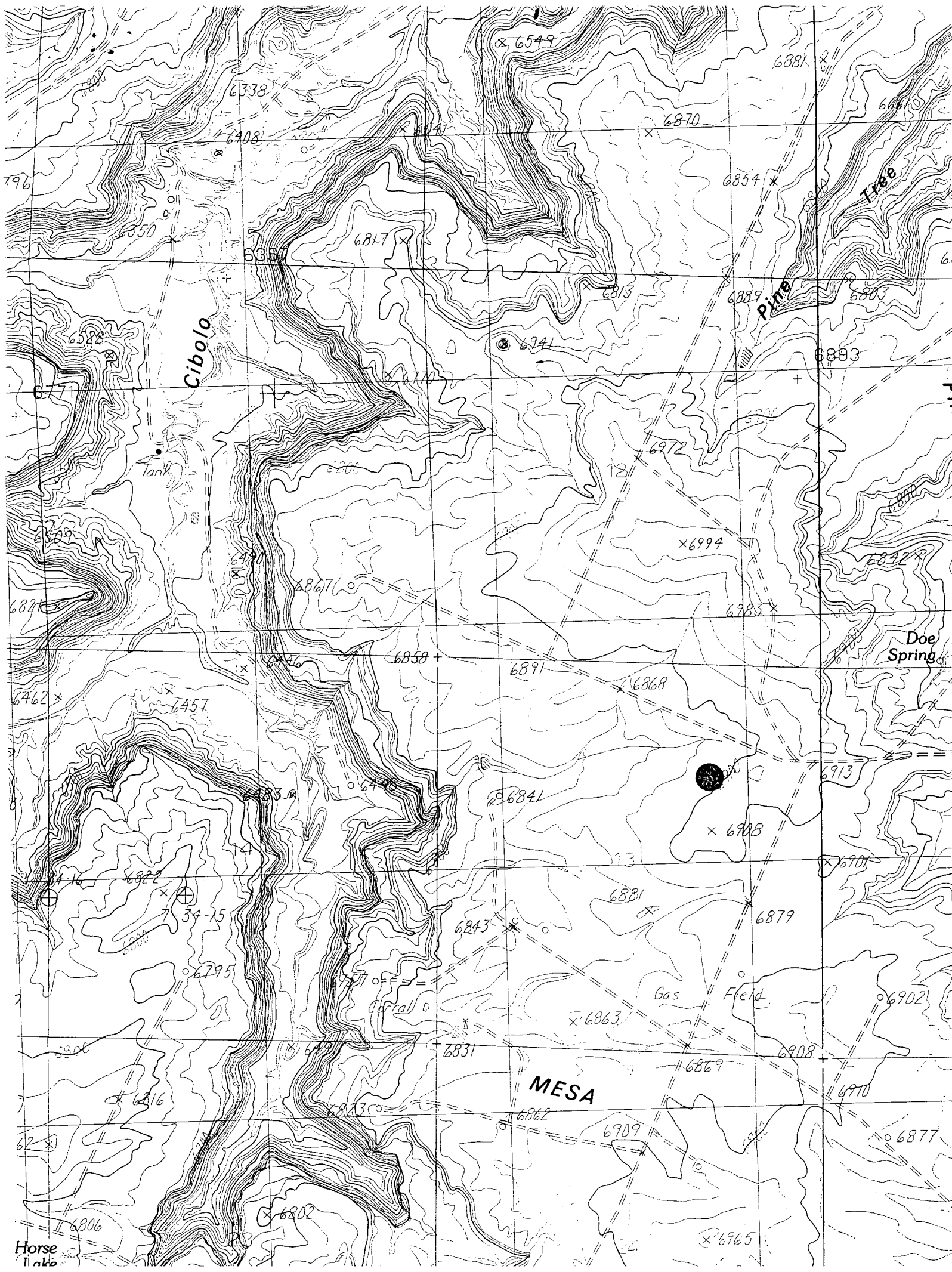
Dakota / Gallup Formations Dual Completion Well

Township 25 North, Range 7 West



1) Meridian Oil Inc.

Gallup Formation



Mike Stogner

From: Ernie Busch
To: Mike Stogner
Subject: MERIDIAN OIL INC (NSL)
Date: Fri, Feb 24, 1995 11:13AM
Priority: High

CANYON LARGO UNIT #428
1475' FNL; 1475' FEL
G-13-25N-07W
RECOMMEND: APPROVAL