

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131



April 13, 1995

RECEIVED
APR 19 1995

OIL CON. DIV.
Bldg. 3

Meridian Oil, Inc.
Attention: Peggy Bradfield
P.O. Box 4289
Farmington, New Mexico 87499-4289

Administrative Order NSL-3517

Dear Ms. Bradfield:

Reference is made to your application dated March 24, 1995, as amended by letter dated April 10, 1995, for a non-standard gas well location to test the Barker Dome-Desert Creek Pool for Meridian's proposed Ute Com Well No. 25 to be drilled at an unorthodox gas well location 475 feet from the South line and 1415 feet from the West line (Unit M) of Section 19, Township 32 North, Range 14 West, NMPM, as projected into the unsurveyed Ute Mountain Indian Reservation, San Juan County, New Mexico. The S/2 of said Section 19 shall be dedicated to said well to form a standard 320-acre gas spacing and proration unit for said pool.

By authority granted me under the provisions of **Rule 5** of the "*Special Rules and Regulations for the Barker Dome-Desert Creek Pool*", as promulgated by Division Order No. R-46-A, dated February 13, 1995, the location of said Ute Com Well No. 25 is hereby approved.

Sincerely,

A handwritten signature in cursive script, reading "William J. LeMay".

William J. LeMay
Director

WJL/MES/kv

cc: Oil Conservation Division - Aztec ✓
U. S. BLM - Durango, Colorado

Ernie Busch

From: Ernie Busch
To: Mike Stogner
Subject: MERIDIAN OIL INC (NSL)
Date: Tuesday, March 28, 1995 7:01AM
Priority: High

UTE COM #25
475' FSL; 1415' FWL
N-19-32N-14W
RECOMMEND: APPROVAL

MERIDIAN OIL

March 24, 1995

Sent Federal Express

Mr. Michael Stogner
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Meridian Oil Inc. Ute Com #25
475'FSL, 1415'FWL Section 19, T-32-N, R-14-W - San Juan County, New Mexico
API # 30-045-not assigned

Dear Mr. Stogner:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the Barker Creek Paradox formation. This application for the referenced location is due to terrain as shown on the topographic map, archaeology, and at the request of the Ute Mountain Ute Tribe.

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, and enlargement of the map to define topographic features.

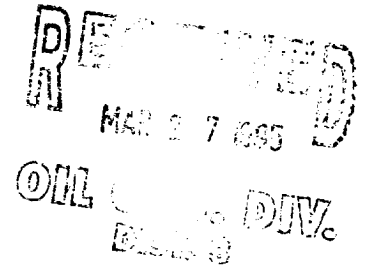
Meridian Oil and Southland Royalty are the offsetting operators to this well.

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,




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 751-94-0007 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe Ute Mt Ute	
2. Operator MERIDIAN OIL	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 37499 (505) 326-9700	8. Farm or Lease Name Ute Com 9. Well Number 25	
4. Location of Well 475' FSL, 1415' FWL Latitude 36° 58' 03", Longitude 108° 21' 15"	10. Field, Pool, Wildcat Barker Creek Paradox 11. Sec., Twn, Rge, Mer. (NMPM) Sec 19, T-32-N, R-14-W API # 30-045-	
14. Distance in Miles from Nearest Town 14 miles to LaPlata, NM	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 475'		
16. Acres in Lease	17. Acres Assigned to Well 640	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 7400'		
19. Proposed Depth 9350'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6831' 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	2/14/95 Date	

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

Archaeological Report submitted by LaPlata Archaeological Consultants LAC #9440b dated 09-01-94
Threatened and Endangered Species Report submitted by Ecosphere Environmental Services dated 08-15-94
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-1
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
		71560	Barker Creek Paradox
Property Code	Property Name		Well Number
	Ute Com.		25
OGRID No.	Operator Name		Elevation
14538	Meridian Oil Inc.		6831'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	19	32N	14W		475	South	1415	West	S.J.

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	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.

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	1306.14'	1320.00'	2640.00'
1			
2	751-94-0007		
3			I-22-IND-2772
4	1415'	475'	
5280.00'	1312.74'	1320.00'	2640.00'

¹⁷ 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
Title
2-13-95
Date

¹⁸ 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 belief.

11-4-94
Date of Survey
Signature and Seal of Professional Surveyor
HERNANDEZ C. EDWARDS
8857
6857
Certificate Number

February 13, 1995

OPERATIONS PLAN

Well Name: Ute Com #25
Location: 475'ESL, 1415'FWL, Section 19, T-32-N, R-14-W
San Juan County, New Mexico
Formation: Barker Creek Paradox
Elevation: 6831'GR

Formation:	Top	Bottom	Contents
Surface	Menefee	918'	
Point Lookout	918'	1413'	fresh water
Mancos	1413'	2320'	
8 5/8" surface casing	1563'		
Niobrara	2320'	3052'	
Greenhorn	3052'	3106'	
Graneros	3106'	3175'	
Dakota	3175'	3414'	gas
Morrison	3414'	3957'	fresh water
Junction Creek	3957'	4308'	salt water
Summerville	4308'	4397'	
Todilto	4397'	4406'	
Entrada	4406'	4515'	salt water
Chinle	4515'	5959'	
Cutler	5959'	7544'	
Hermosa	7544'	8718'	
Upper Ismay	8718'	8781'	gas (potentially 100-500 ppm H ₂ S)
Lower Ismay	8781'	8883'	gas (potentially 100-500 ppm H ₂ S)
Desert Creek	8883'	8996'	gas (potentially 100-500 ppm H ₂ S)
Akah	8996'	9169'	
Upper Barker Creek	9169'		gas (potentially 100-500 ppm H ₂ S)
Total Depth	9350'		

Logging Program:

Mud logs - 2300' to Total Depth

Wireline Logs - AIT, LDT-CNL, DSS-NGT, ML - to Total Depth

Mud Program:

20" conductor hole -	0 - 90' - dry hole digger
12 1/4" surface -	90 - 1563' - freshwater spud mud
7 7/8" production -	1563 - 8218' - LSND
	8218 - 9350' - Dispersed

Pressure Control Program:

12 1/4" hole - diversion only

7 7/8" hole - a 3000 psi WP casinghead will be installed on the surface casing. A 3000 psi WP annulus preventer, a 3000 psi WP double gate preventer equipped with blind and pipe rams, and a 3000 psi x 3000 psi WP drilling spool with kill and choke lines will be nipped up on the casinghead.

Operations Plan
Ute Com #25
February 13, 1995

Pressure Control Program (cont'd):

7 7/8" hole - The annulus preventer will be tested to 2200 psi (75% burst) against casing. Pipe and blind rams, choke line, and manifold will be tested at 500 psi and 2200 psi against casing. Casing will be tested to 2200 psi prior to drilling the shoe.

Completion - a 5000 psi WP tubinghead will be installed on the production casing. A 5000 psi WP double gate preventer equipped with blind and pipe rams and a 5000 psi drilling spool equipped with kill and choke lines will be nipped up on the tubinghead. One 7" blooie line will be nipped up above the BOP's. A rotating head will be nipped up on top of the blooie line. Pipe and blind rams, choke line, and manifold will be tested at 500 psi and 4000 psi against casing. Casing will be tested to 4000 psi prior to completing the well.

BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blow out preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. All tests will be reported on the daily drilling report. Preventers will be tested before drilling casing cement plugs.

In the event that a kick is taken while drilling, the following procedure will be followed:

1. Pick up kelly and raise the tool joint above floor.
2. Shut down the mud pump.
3. Close the annular preventer.
4. Record standpipe pressure (SIDPP) after it stabilizes and pit gain.
5. Calculate Initial Circulating Pressure = Slow Circulating Pressure + SIDPP.
6. Calculate kill mud weight required.
7. Complete kill sheet.
8. Decide whether to raise mud weight or drill under-balanced.

BOP Configuration:

20" conductor hole	-	0' - 90' - not applicable
12 1/4" surface hole	-	90' - 1563' - not applicable
5000 psi system		
7 7/8" production hole	-	1563' - 9350' - Figures #1 & #2

Operations Plan
Ute Com #25
February 13, 1995

Casing Program: (all casing will be new)

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
20"	0' - 90'	16"		Conductor
12 1/4"	0' - 1563'	8 5/8"	24.0#	K-55 LT&C
7 7/8"	0' - 8000'	5 1/2"	17.0#	L-80 LT&C
7 7/8"	8000' - 9350'	5 1/2"	23.0#	L-80 LT&C

Float Equipment:

Surface casing - guide shoe, float collar, centralizers every 4th joint.
Production casing - float shoe, float collar, stage tools @ 3025' and 8568', centralizers every 4th joint.

Wellhead Equipment (sour gas service):

11" 3000 psi x 8 5/8" female thread casinghead
11" 3000 psi x 7 1/16" 5000 psi tubinghead
7 1/16" 5000 psi x 2 7/8" 5000 psi adapter

Tree assembly for single completion gas service.

Cementing:

20" conductor - Reccymix - grout to surface

12 1/4" surface - cement with 662 sx Class "B" 65/35 Pozmix with 1/4# flocele/sx, 6% gel and 2% calcium chloride (12.4#/gal. weight) 1172 cu.ft. of slurry). Tail with 100 sx Class "B" neat with 1/4# flocele/sx and 2% calcium chloride (15.6#/gal. weight; 118 cu.ft. of slurry), 100% excess circulated to surface.

7 7/8" production -

First stage - cement with 241 sx Class "G" with 1% fluid loss additive, 2% defoamer, 37% salt, and 1/4# flocele/sx (15.8 gal.weight; 277 cu.ft. of slurry), 100% excess circulated to stage tool @ 8568' (150' above Ismay).

Second stage - cement with 905 sx Class "B" 65/35 Pozmix w/6% gel, 1/2% fluid loss additive, 1/4# flocele/sx and 2% calcium chloride (12.4#/gal. weight; 1602 cu.ft. of slurry). Tail with 100 sx Class "B" neat with 0.5% fluid loss additive and 1/4#/sx flocele (15.8#/gal.weight; 118 cu.ft. of slurry), 75% excess circulated to stage tool @ 3025' (150' above Dakota).

Third stage - cement with 464 sx Class "B" 65/35 Pozmix w/6% gel, 1/2% fluid loss additive, 1/4# flocele/sx and 2% calcium chloride (12.4#/gal. weight; 821 cu.ft. of slurry). Tail with 100 sx Class "B" neat with 0.5% fluid loss additive and 1/4#/sx flocele (15.8#/gal.weight; 118 cu.ft. of slurry), 75% excess circulated to surface.

NOTE: 4 hour circulation time between stages.

Operations Plan
Ute Com #25
January 24, 1995

Drill Stem Test Program: none

Coring Program: none

Anticipated abnormal pressures or temperatures: none

Operations Plan
Ute Com #25
January 24, 1995

Anticipated potentially hazardous conditions:

1. H₂S is anticipated to exist from the Paradox formation (8613') to Total Depth.
2. Anticipated concentrations are estimated at 300 - 500 ppm.
3. All gasses encountered will be flared.
4. H₂S safety equipment will be operational at 7300'.
5. H₂S safety equipment will be provided for all personnel on location at all times.
6. All personnel on location will be H₂S certified.
7. An H₂S trained professional will be on location at all pertinent times; i.e., DST's, cementing operations, under-balanced drilling, etc.
8. The toxicity of H₂S gas is as follows:

1 ppm = .0001% (1/10,000 of 1%)	Can smell.
10 ppm = .001% (1/1563 of 1%)	Allowable for 8 hrs. exposure
50 ppm = .005% (5/1563 of 1%)	NOTE: when H ₂ S concentration reaches 10 ppm on the rig floor, call for the safety trailer.
100 ppm = .01% (1/100 of 1%)	Kills smell rapidly. Burns eyes and throat.
500 ppm = .05% (5/100 of 1%)	Loses sense of reasoning and balance. Respiratory disturbances in 2-15 min. Needs prompt artificial resuscitation.
700 ppm = .07% (7/100 of 1%)	Will become unconscious quickly. Breathing will stop and death will result if not rescued promptly.
1,000 ppm = .10% (1/10 of 1%)	Unconscious at once. PERMANENT BRAIN DAMAGE MAY RESULT UNLESS RESCUED PROMPTLY.

H₂S Drilling Operations Plan

1. Training Program - Meridian Oil will ensure all personnel have been properly H₂S trained as per API RP 49 prior to three days or 500 feet prior to penetrating the Upper Ismay at 3613' KB. An initial training session and weekly H₂S and well control drills for all personnel in each working crew will be conducted. Each training session and drill will be recorded on the drillers log. Two briefing areas will be designated and located at least 150 feet from the wellbore. One such briefing area will be upwind of the well at all times. John Dolan, Meridian Oil Safety Representative, will be designated and identified to all personnel on-site as responsible for on-site safety and training programs.
2. Protective Equipment - Meridian Oil will ensure respiratory protection equipment program is implemented as per ANSI 2.88.2-1980. Proper breathing apparatus will be readily accessible for all essential personnel, meaning one working breathing apparatus including a five minute escape-type SCBA for the derrickman, available for all essential personnel. The following additional safety equipment will be available for use:
 - a. Effective means of communication when using breathing apparatus.
 - b. A flare gun and flares to ignite well.
 - c. A telephone, radio, mobile phone or other device that provides communication from a safe area, where practical.
3. H₂S Detection and Monitoring Equipment
 - a. Drilling - will be three sensing points (shale shaker, rig floor, bell nipple) with rapid response sensors capable of sensing a minimum of 10 ppm of H₂S, in ambient air, which automatically activates visible and audible alarms at levels or threshold limits of 10 and 15 ppm, respectively.

Completion - same as above except sensors will be located at the rig floor, cellar, and shale shaker or circulating tank.

Workover - will have one sensor operational as close to the wellbore as possible.
 - b. All tests on H₂S monitoring system will be recorded on drillers log.
4. Visible Warning System
 - a. Wind direction indicators (drilling (2); completion/workover (1)) will be located at separate elevations with one indicator clearly visible at all times from principle working areas. The wind indicator will be clearly visible from the briefing areas or additional indicators will be installed at such areas.

b. Operation Danger or Caution signs will be displayed along all controlled accesses to the site. Each sign will be painted high visibility red, black, and white or yellow with black lettering. Signs will be large enough to be read by all persons entering the wellsite and be placed a minimum of 200 feet but no more than 500 feet from the wellsite.

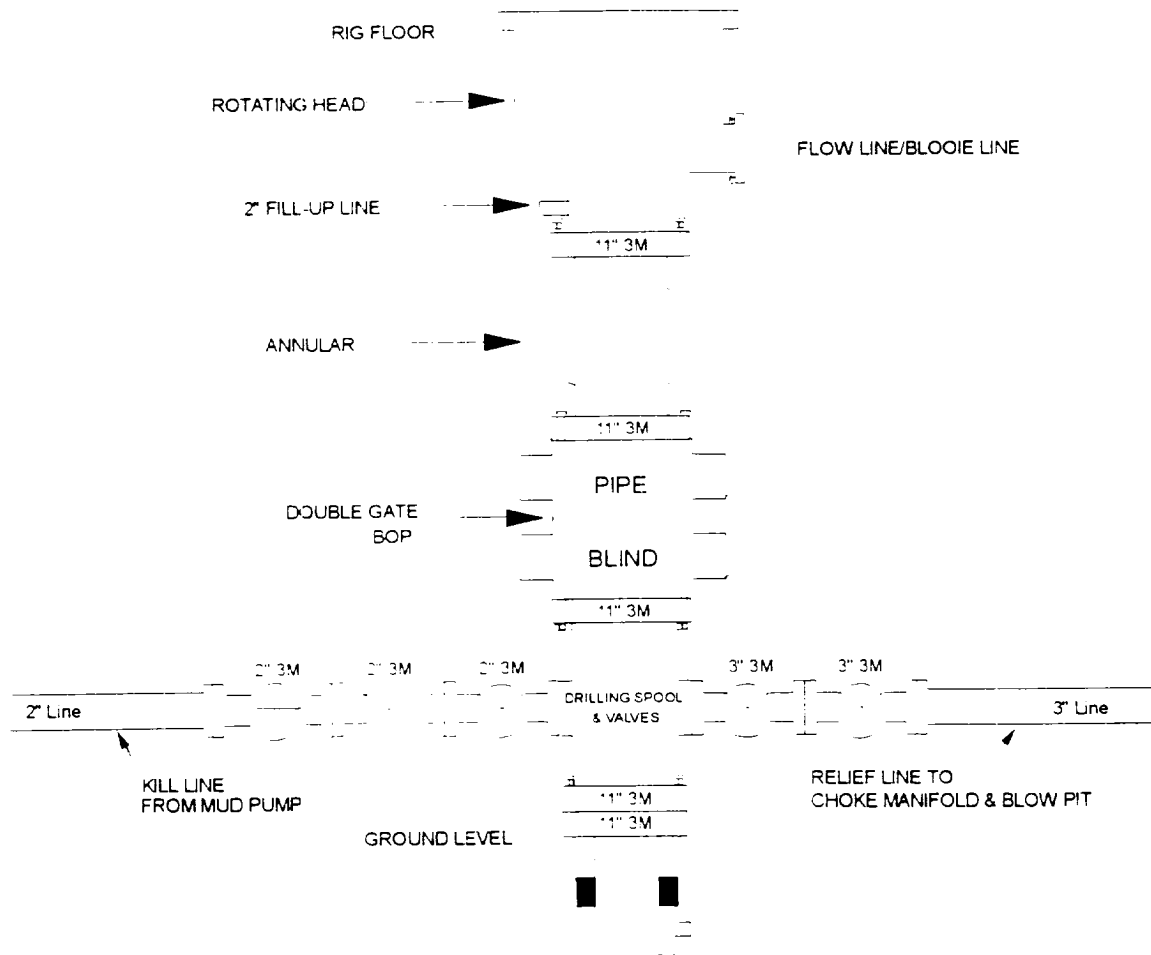
c. The sign(s) will read "DANGER - POISON GAS - HYDROGEN SULFIDE" and in smaller lettering, "Do not approach if red flag is flying".

d. When H_2S is detected in excess of 10 ppm, red flag(s) will be displayed and visible to all personnel approaching the location under normal lighting and weather conditions.

5. Warning System Response - H_2S detected above 10 ppm will initiate all non-essential personnel to be moved to a safe area and all essential personnel to don breathing apparatus.

MERIDIAN OIL INC.

Drilling Rig Surface Casing BOP Configuration 3000 psi System

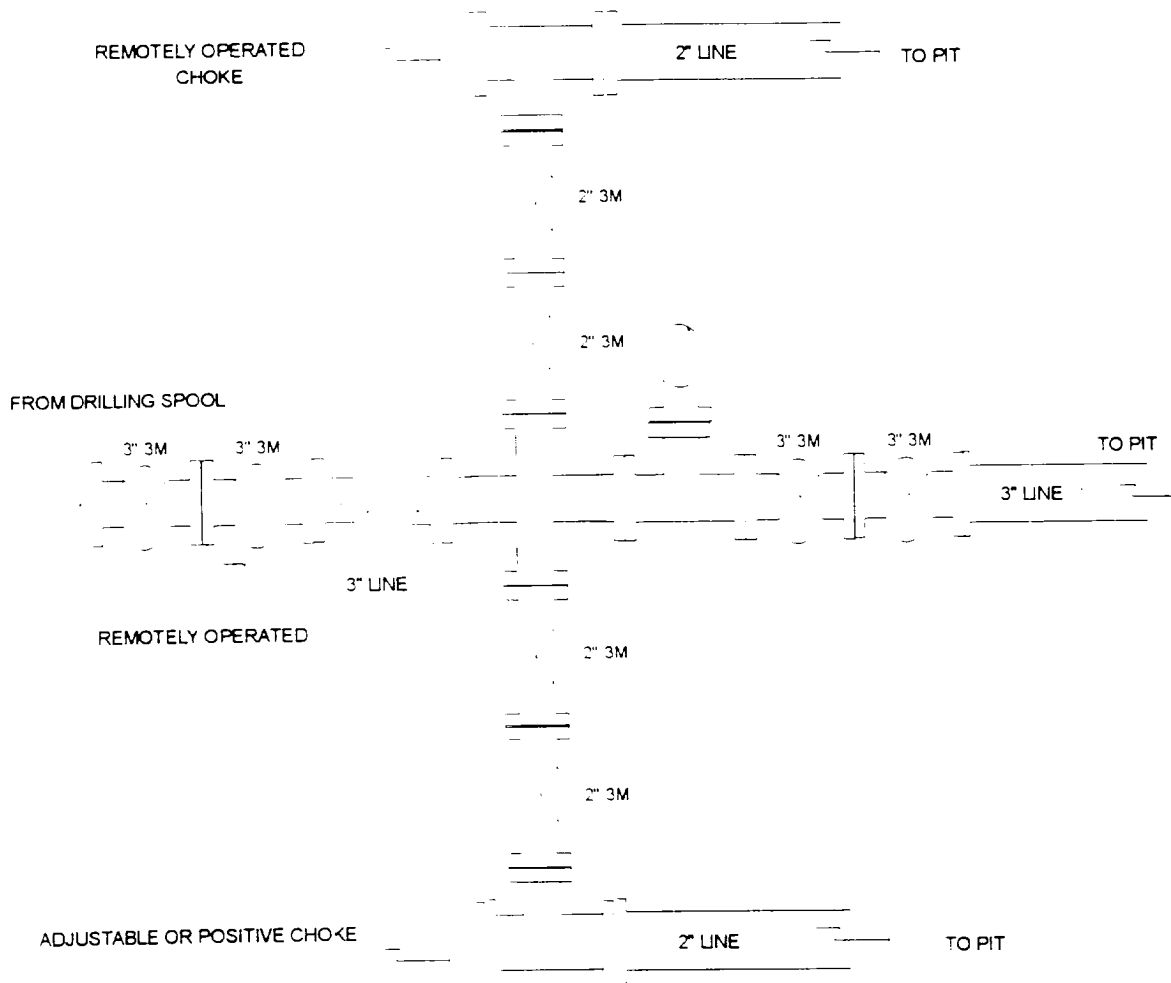


BOP installation from surface to intermediate casing point. 11" Bore (10" Nominal), 3000psi working pressure double gate BOP to be equipped with blind and pipe rams. A 3000psi Annular preventer to be installed on top of rams. A rotating head on the top of Annular preventer. All BOP equipment is 3000psi working pressure.

Figure #1

MERIDIAN OIL INC.

Drilling Rig Choke Manifold Configuration 3000 psi System



Choke manifold installation from surface
to Total Depth. 3000psi working pressure
equipment with two chokes.

Figure #2

MERIDIAN OIL
Ute Com #25
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 950' 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 Mancos River Bridge located in Section 36, T-33-N, R-16-W, Colorado.
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.

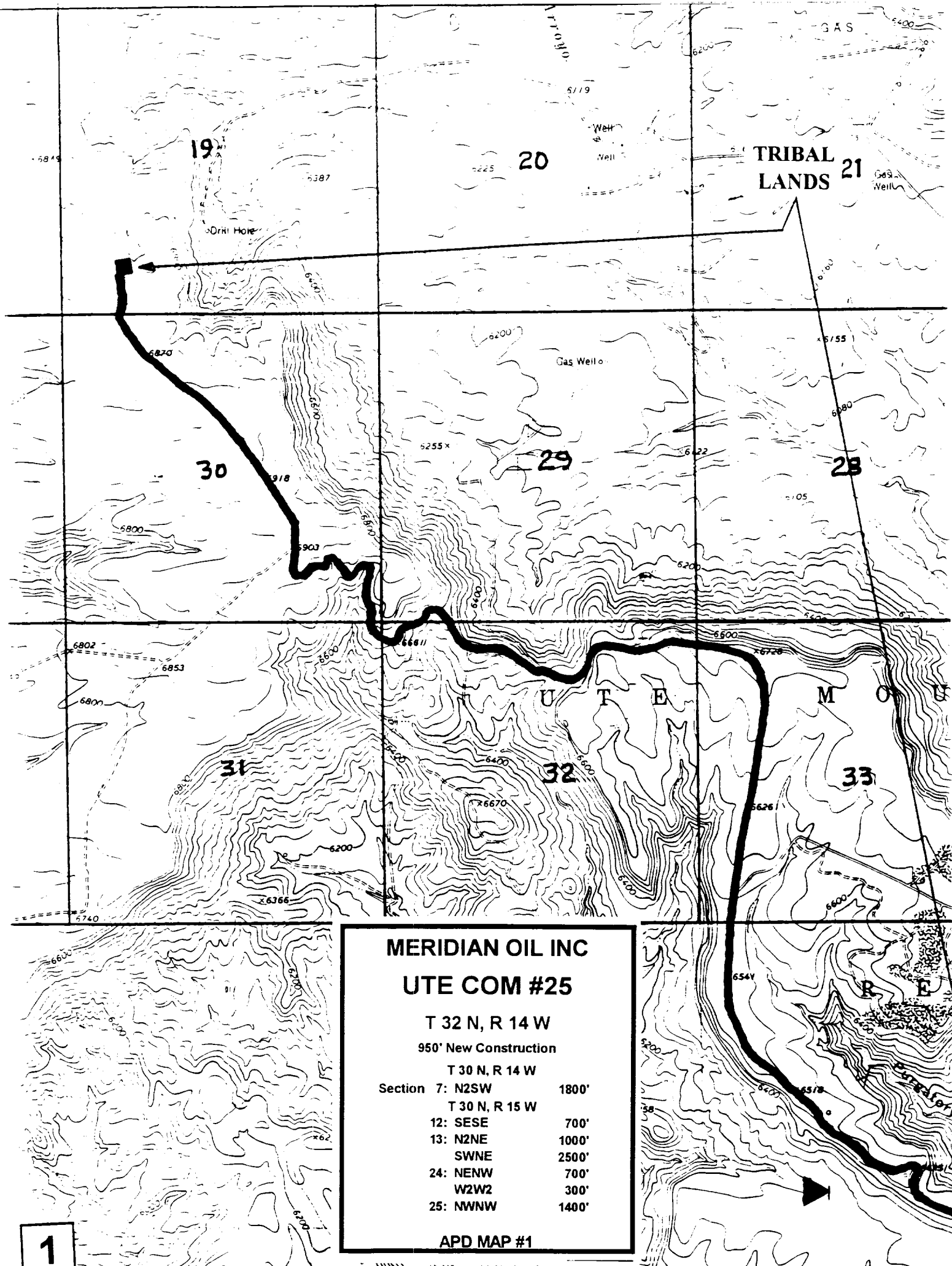
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be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

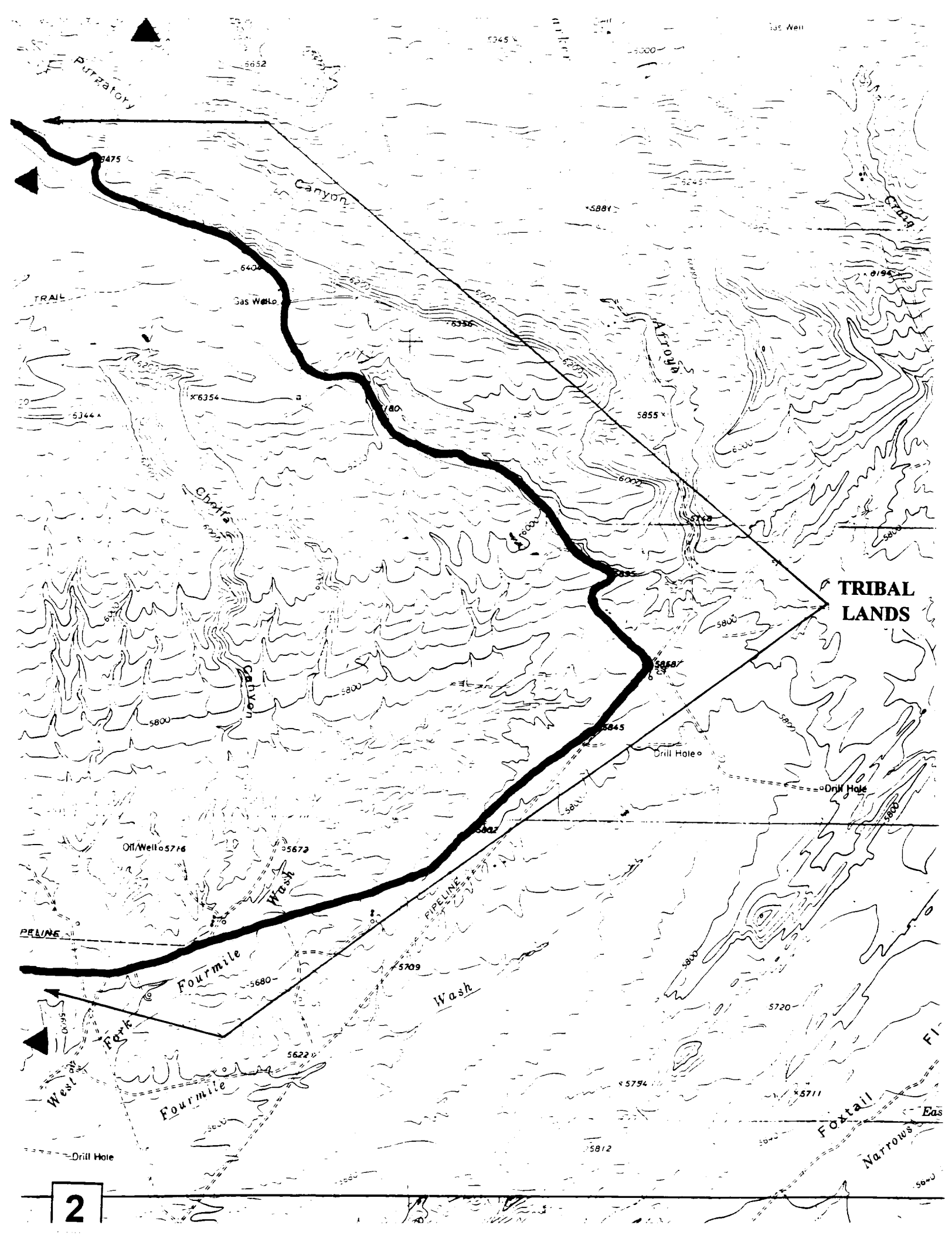


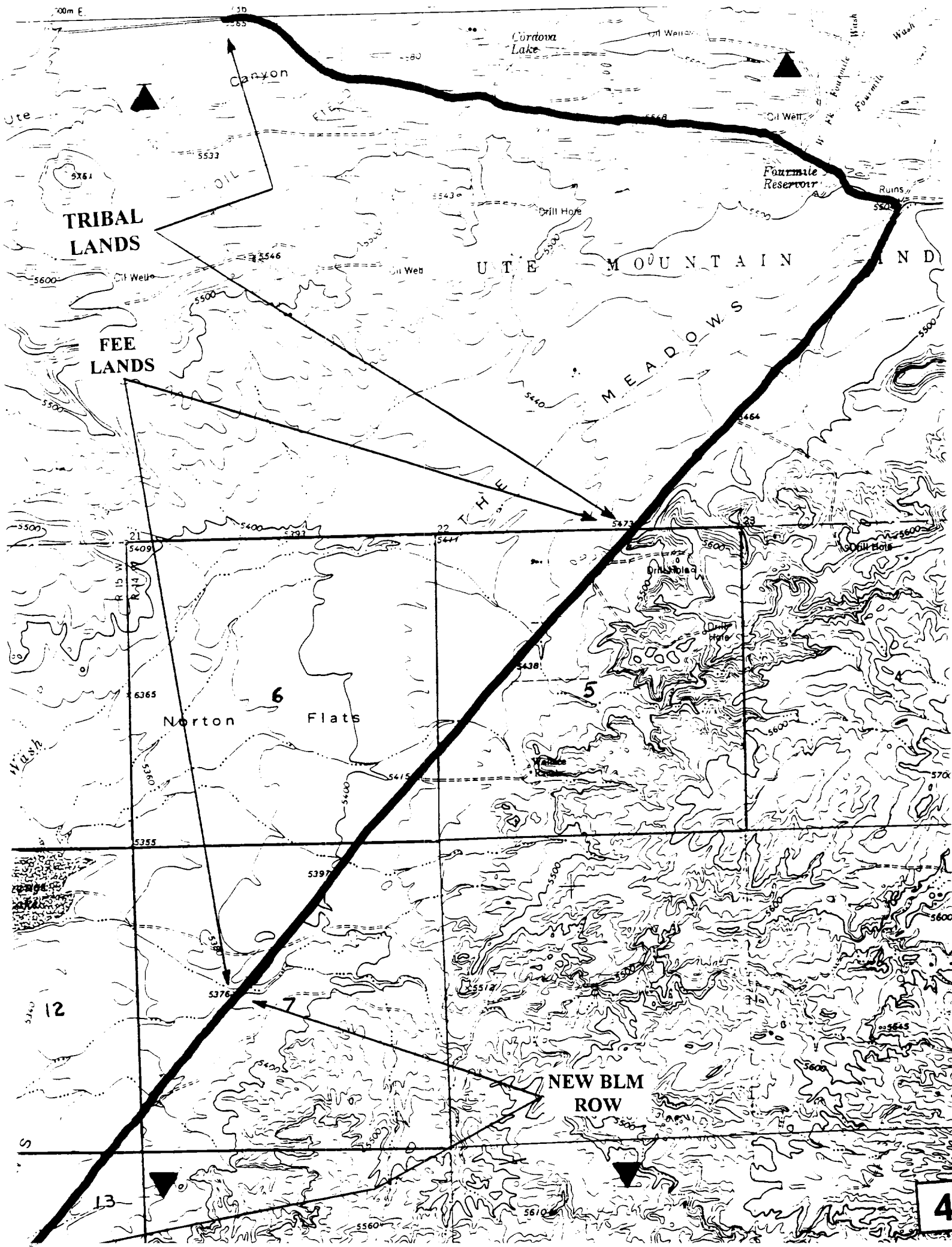
Regional Drilling Engineer

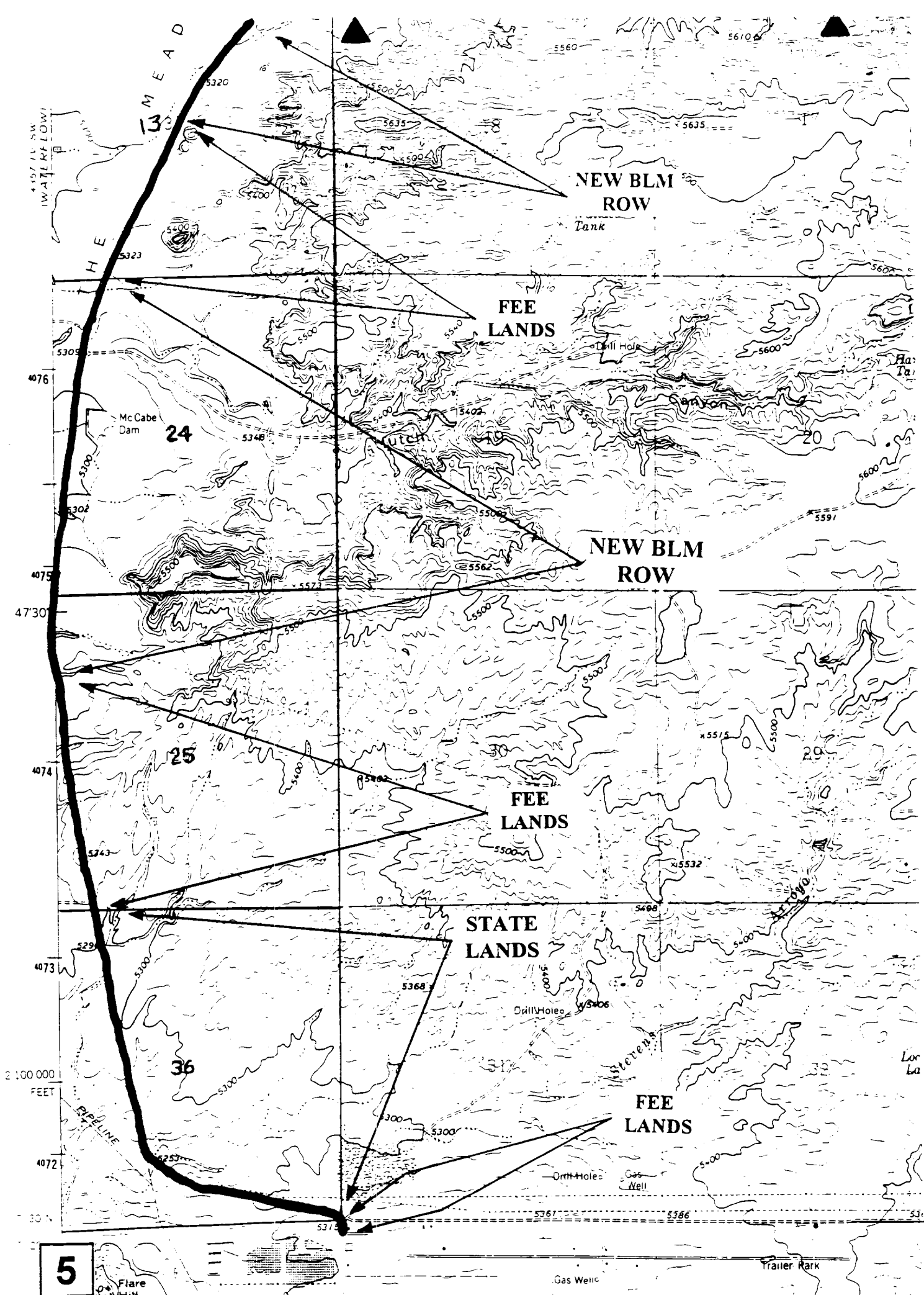
2/11/95
Date

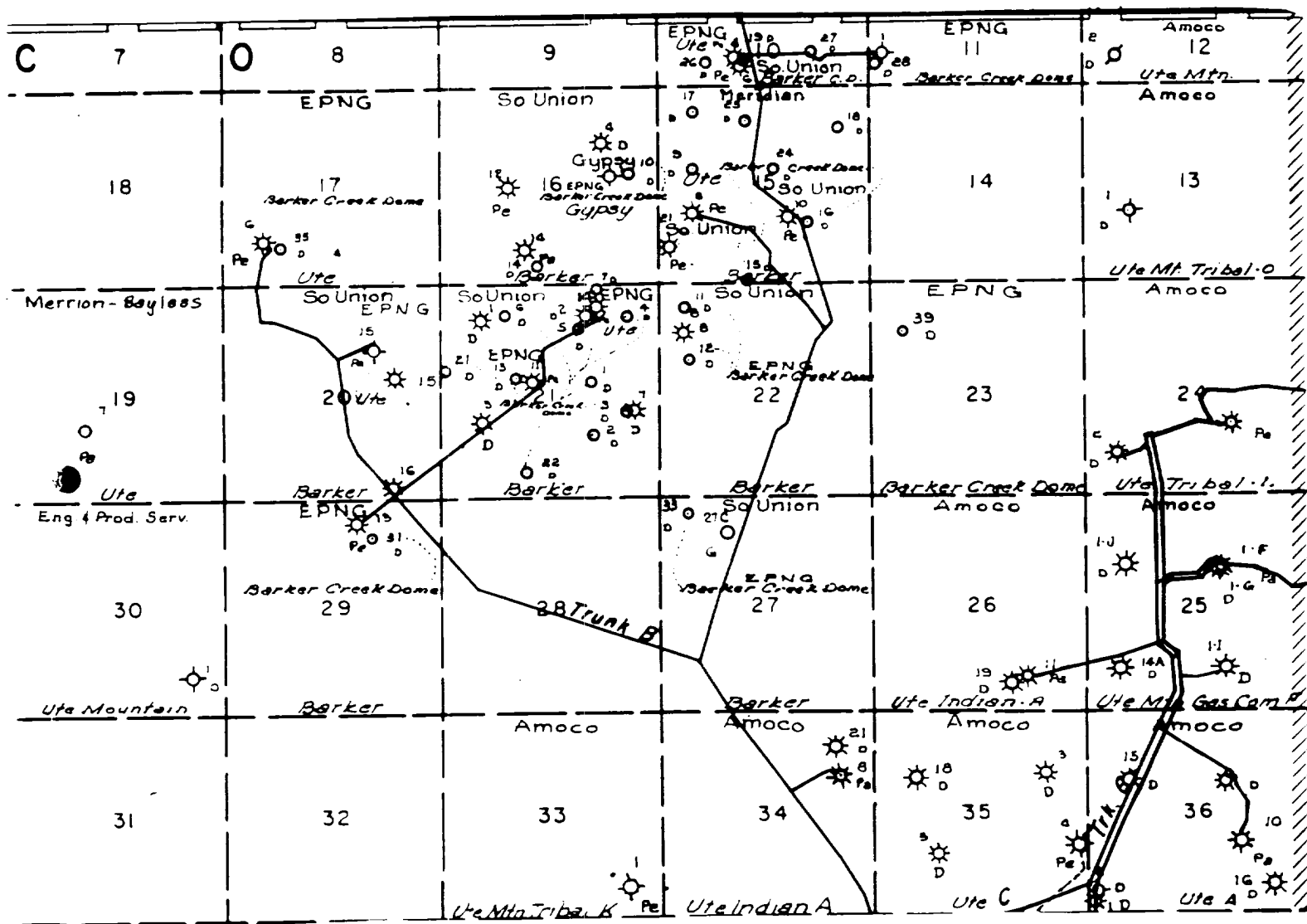
JWC:pb











MERIDIAN OIL INC.
 Pipeline Map
 T-32-N, R-14-W
 San Juan County, New Mexico

Ute Com #25
 Map #1A

3/91 adw/mjb

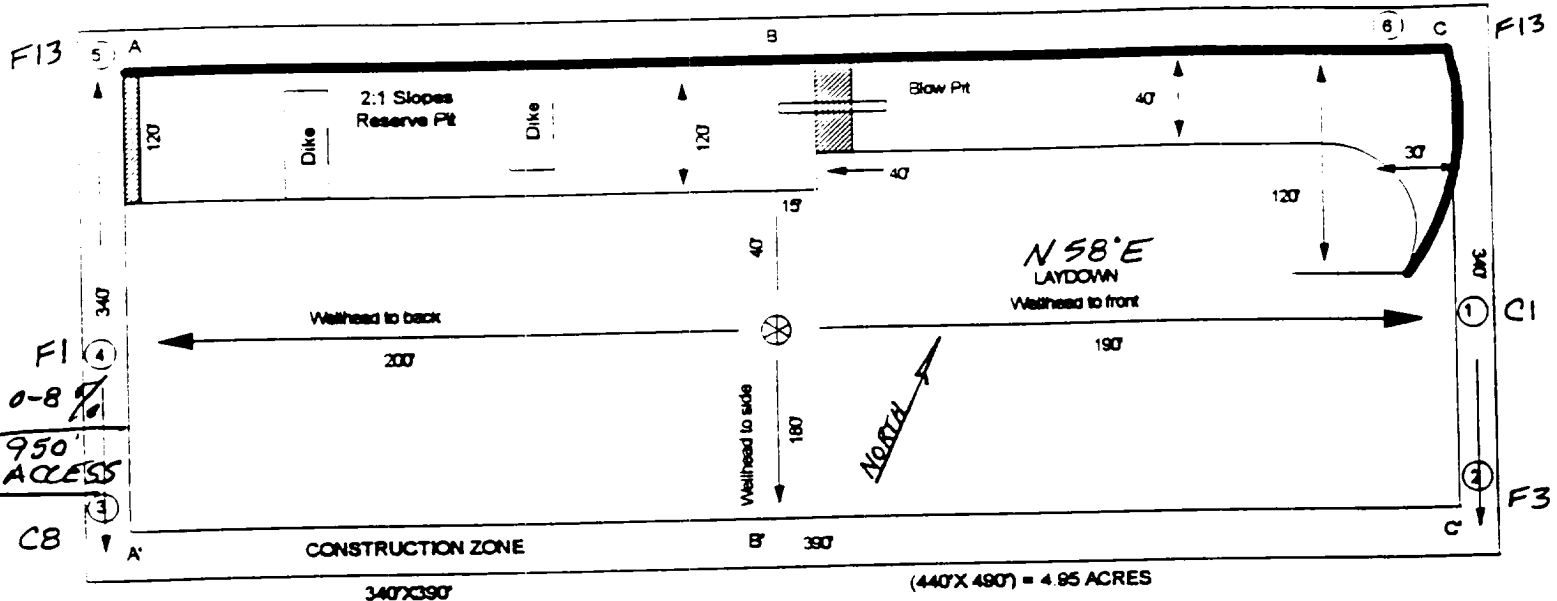
MERIDIAN OIL

PLAT #3

BARKER DOME

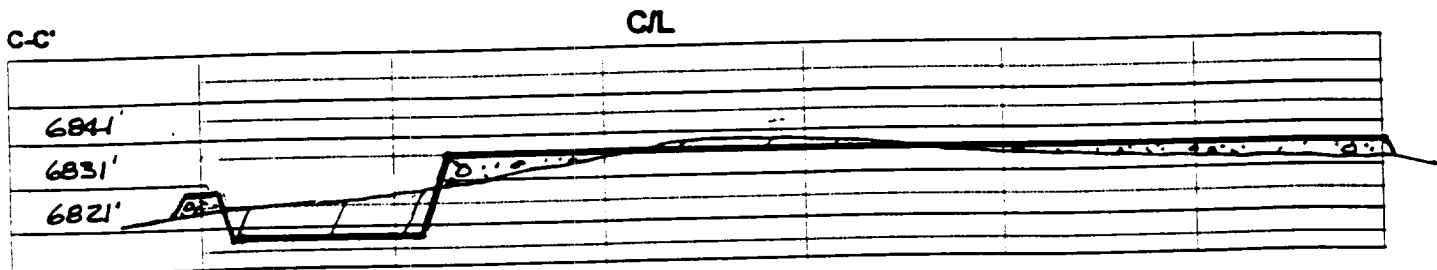
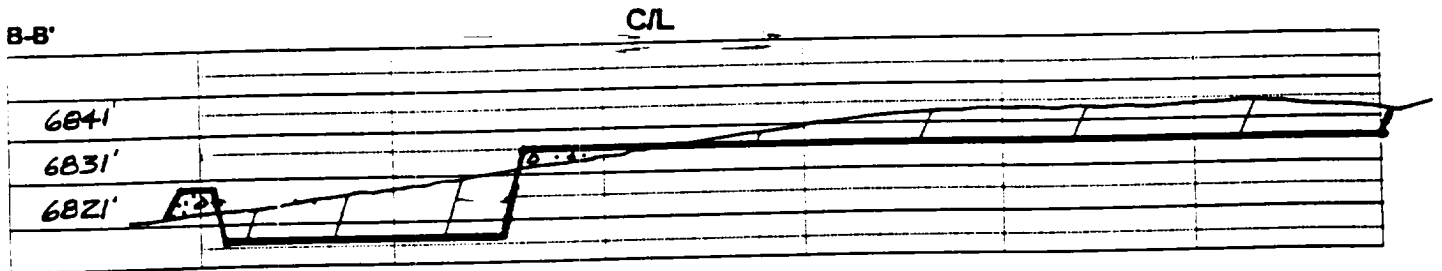
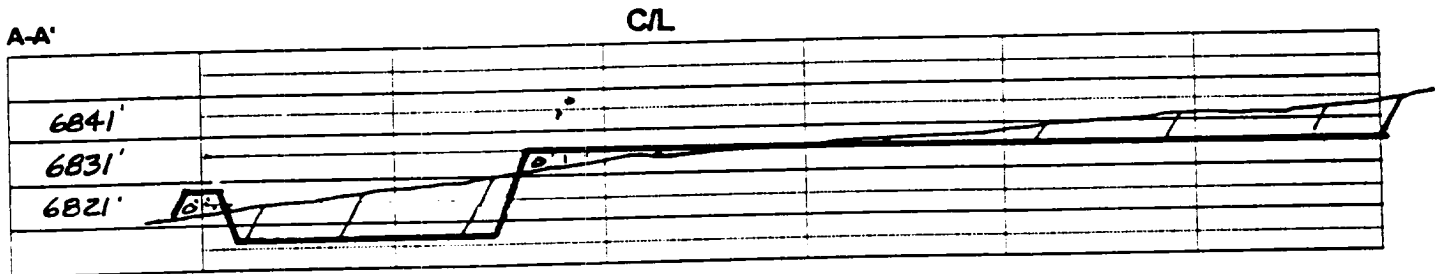
HORIZONTALS

NAME: MOI UTE COM. #25
 FOOTAGE: 475 FSL 1415 FWL
 SEC 19 TWN 32 N.R. 14 WNMPM
 CO: SAN JUAN ST: N.M.
 ELEVATION: 6831 DATE: 7-21-94



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.



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.

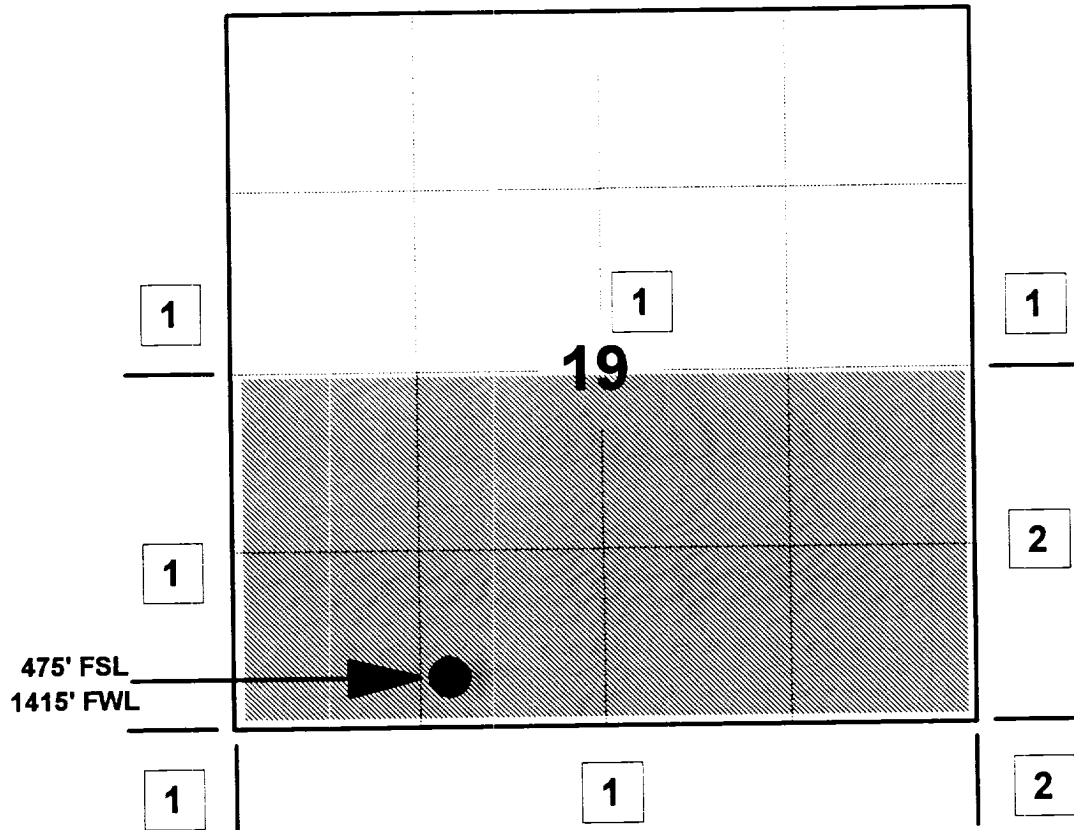
MERIDIAN OIL INC

UTE COM #25

OFFSET OPERATOR \ OWNER PLAT

Unorthodox Barker Creek Paradox Well Location

Township 32 North, Range 14 West



1) Meridian Oil Inc

2) Southland Royalty Company

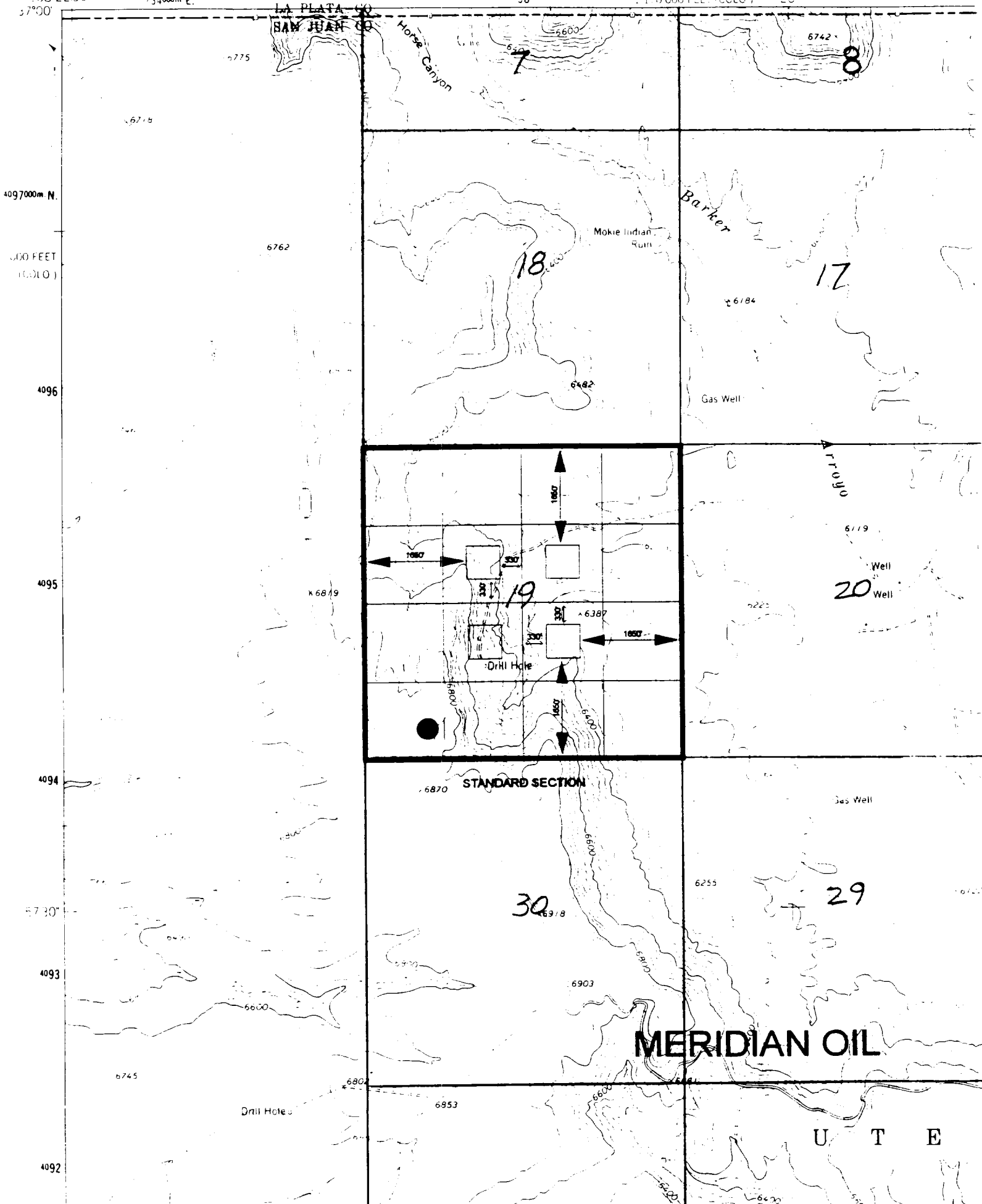
4
ANYON)

34000m E.

36

: 170 000 FEET (COLO)

10



DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

734000m. E.

736

1 170 000 FEET (COLO.)

LA PLATA CO
SAN JUAN CO

Horse Canyon

6600

6775

6718

6700

6762

6700

6600

6746

Mokie Indian
Ruins

Barker

6184

Gas Well

6482

6400

6819

19

6387

Drill Hole

6089

6730

6770

6800

6870

6400

6600

6255

30
6918