

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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94 AUG 30 PM 1:47

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

070 FARMINGTON, NM

1a. Type of Work DRILL	5. Lease Number SF-081155
1b. Type of Well <del>GAS</del> <i>inj</i>	6. If Indian, All. or Tribe
2. Operator <b>MERIDIAN OIL</b> <i>14538</i>	7. Unit Agreement Name Allison Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name <i>6784</i> Allison Unit <del>215</del> ✓ 9. Well Number 140
4. Location of Well 600' FSL, 785' FEL  Latitude 36° 57' 36", Longitude 107° 29' 36"	10. Field, Pool, Wildcat <i>71629</i> Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. <i>P</i> Sec 19, T-32-N, R-6-W NMPM
14. Distance in Miles from Nearest Town 5 miles to Allison	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 600'	<i>API #: 30-045-29182</i>
16. Acres in Lease	17. Acres Assigned to Well n/a <i>CO2 inj well</i>
18. Distance from Proposed Location to Nearest Well, Dry, Compl. or Applied for on this Lease 1200'	
19. Proposed Depth 3436'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6477' GR ✓	22. Approx. Date Work will Start 4th quarter 1994
23. Proposed Casing and Cementing Program <i>See Operations Plan attached</i>	
24. Authorized by: <i>[Signature]</i> Regional Drilling Engineer	Date <i>8/29/94</i>

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

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SEP 15 1994

OIL CON. DIV.  
DIST. 3

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Archaeological Report submitted by Arboles Contract Arch. Tech Report #538 07-01-94  
Threatened and Endangered Species Report to be submitted  
NOTE: This format is issued in lieu of U.S. BLM Form 3160-

APPROVED  
AS AMENDED

SEP 13 1994

DISTRICT MANAGER

*C-104 For UTC @ order*

WLOD

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

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Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

070 FARMINGTON, NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-29182	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 67854	Property Name Allison Unit <del>INE</del>	Well Number 140
OGRID No. 14538	Operator Name MERIDIAN OIL INC.	Elevation 6477'

10 Surface Location

UL or lot no. P	Section 19	Township 32 N	Range 6 W	Lot Idn	Feet from the 600	North/South line South	Feet from the 785	East/West line East	County S.J.
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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
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12 Dedicated Acres n/a	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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 1312.08'	1325.28	2650.56	17 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 Representative Title 8-18-94 Date
1			
2			
3			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. 5-5-94 Date of Survey Signature and Seal 6857 Certificate Number
4			
1275.12	1314.06	2657.82	

OPERATIONS PLAN

**Well Name:** Allison Unit INJ #140  
**Location:** 600'FSL, 785'FEL, Section 19, T-32-N, R-6-W  
 San Juan County, New Mexico  
 Latitude 36° 57' 36", Longitude 107° 29' 36"  
**Formation:** Basin Fruitland Coal  
**Elevation:** 6488'GL

Formation:	Top	Bottom	Contents
Surface	San Jose	2321'	
Ojo Alamo	2321'	2432'	aquifer
Kirtland	2432'	2977'	
Fruitland	2977'	3381'	gas
Fruitland Coal	3109'	3376'	gas
Pictured Cliffs	3381'		gas
Total Depth	3436'		

**Logging Program:** Mud logs from 2877' to Total Depth.  
 Dens/Neut/GL; Dens/GR; Micro/GR: 2900-TD  
 Ind/GR/SP: surface-TD

**Mud Program:**

Interval	Type	Weight	Vis.	Fluid Loss
0- 350'	Spud	8.4-8.9	40-50	no control
350-3436'	Non-dispersed	8.4-9.5	30-60	no control

**Casing Program:**

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0 - 350'	8 5/8"	24.0#	K-40
7 7/8"	0 - 3436'	4 1/2"	10.5#	K-55

**Tubing Program:**

0 - 3436'	2 3/8"	4.7#	J-55
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**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. Two centralizers run every 3rd joint to the base of the Ojo Alamo @ 2432'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2432'. 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.

August 29, 1994

**Cementing:**

8 5/8" surface casing - cement with 175 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (189 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi/30 minutes.

4 1/2" production casing - Lead w/606 sx of 65/35 Class "B" Poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (1190 cu.ft. of slurry, 100% 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 600psi/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).

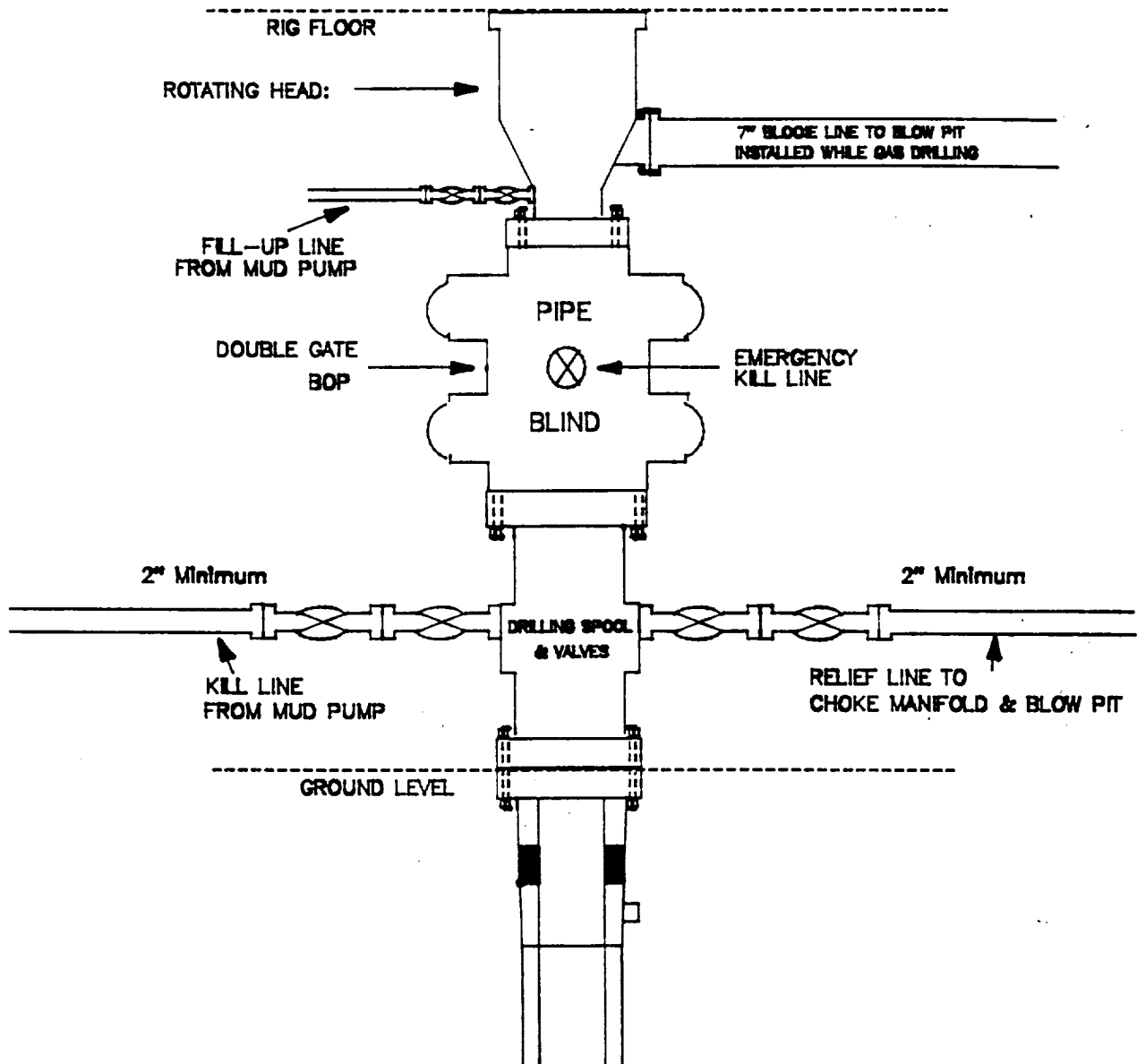
Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

**Additional information:**

- \* This well is intended for CO2 injection purposes only.
- \* This well was presented before the New Mexico Oil Conservation Division in hearing August 18, 1994 for the above procedure, and for non-standard location purposes.
- \* Anticipated pore pressure for the Fruitland is 700 psi.
- \* 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

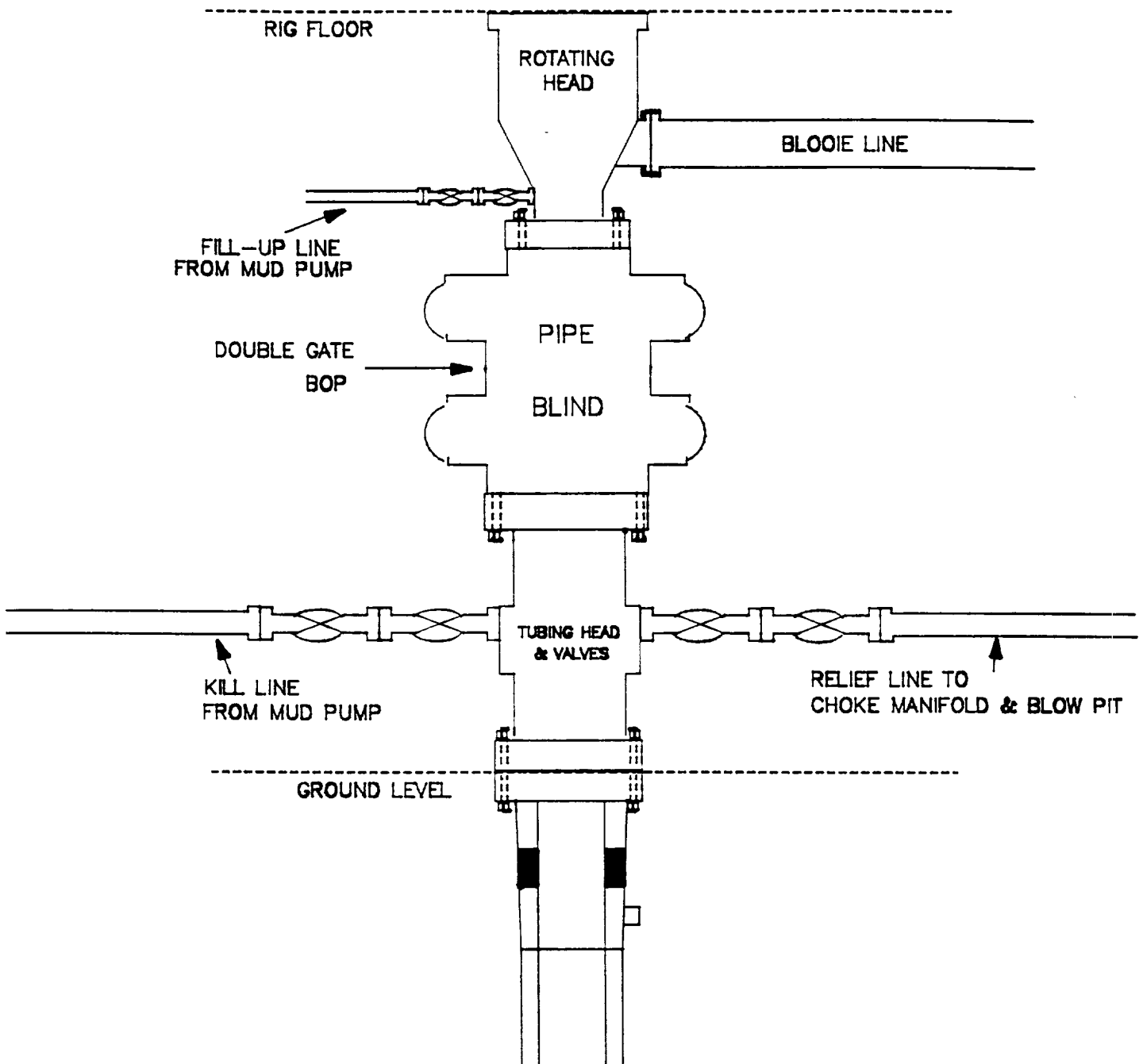


11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

# MERIDIAN OIL INC.

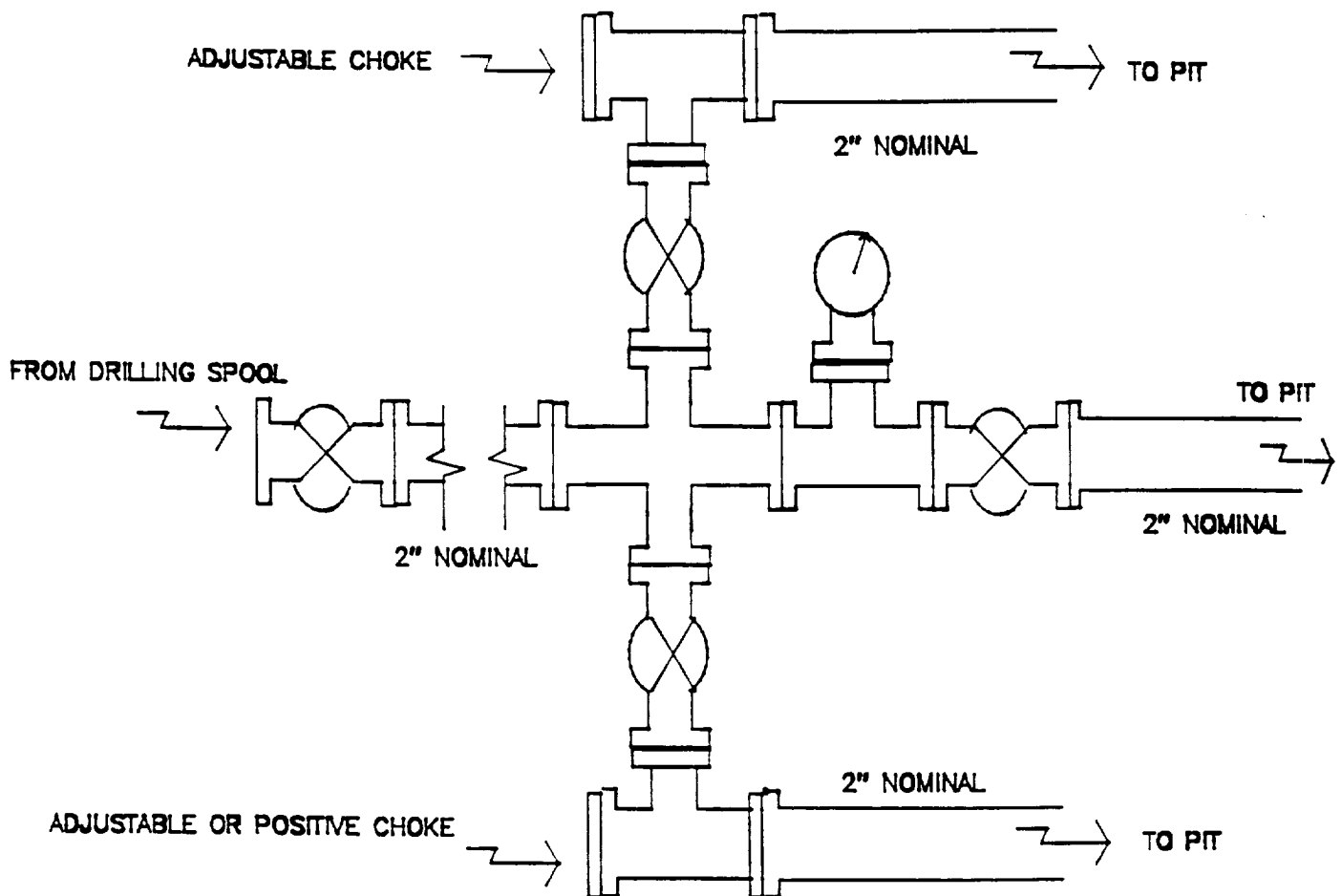
BOP Configuration  
2M psi SYSTEM



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**  
Allison Unit INJ #140  
Multi-Point Surface Use Plan

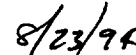
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access 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 1300' 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 Menzel Ditch located NW Section 7, T-32-N, R-6-W
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.

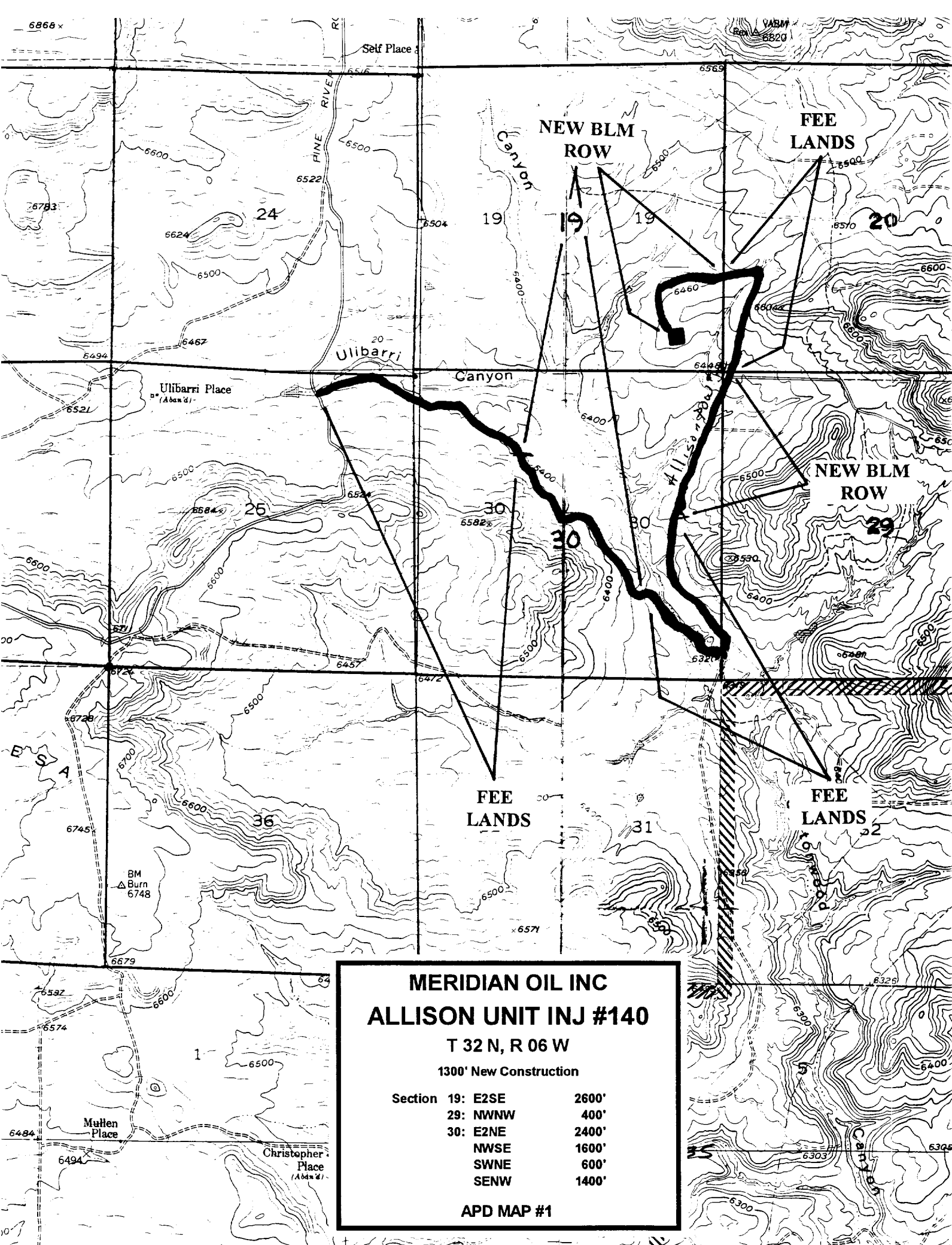


Regional Drilling Engineer



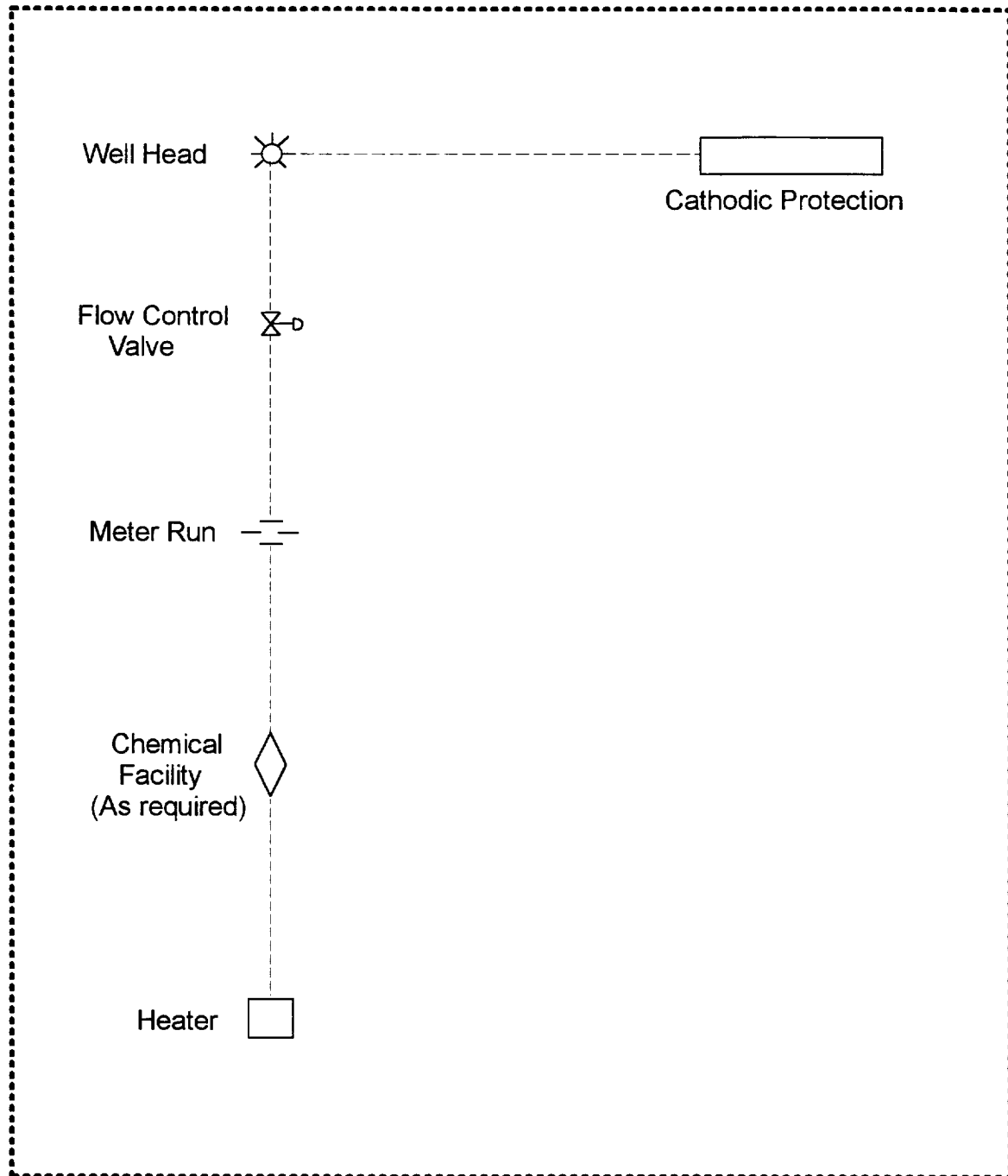
Date

JWC:pb



# MERIDIAN OIL INC.

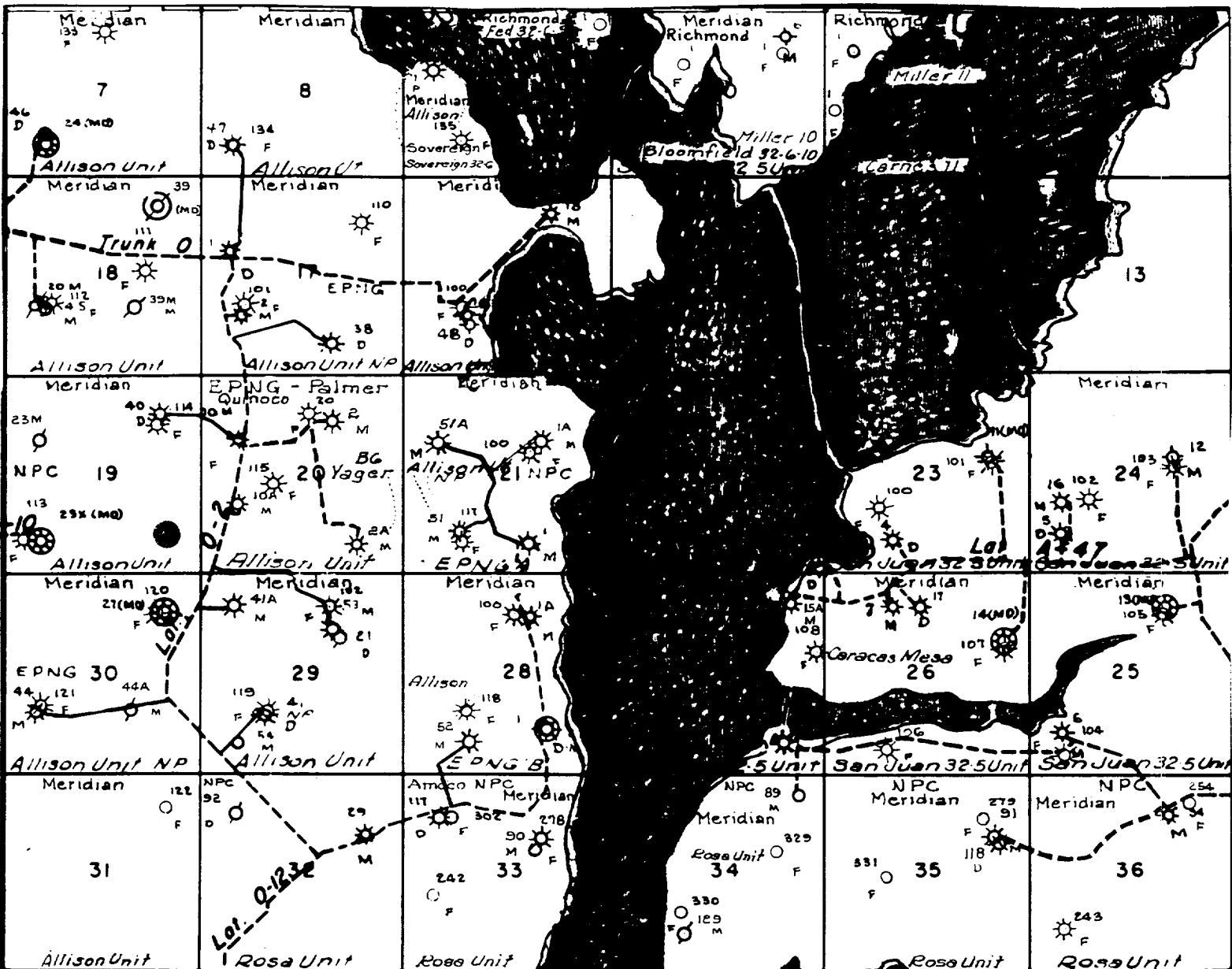
Well Pad Boundary



ANTICIPATED INJECTION FACILITIES  
FOR A  
FRUITLAND COAL INJECTION WELL

PLAT #1

AMM 08/29/94



MERIDIAN OIL INC.  
 Pipeline Map  
 T-32-N, R-06-W  
 San Juan County, New Mexico

# MERIDIAN OIL

PLAT #1

PC/FC LOW POTENTIAL

NAME: MOI ALLISON UNIT INJ. #140

FOOTAGE: 600' FSL 785' FEL

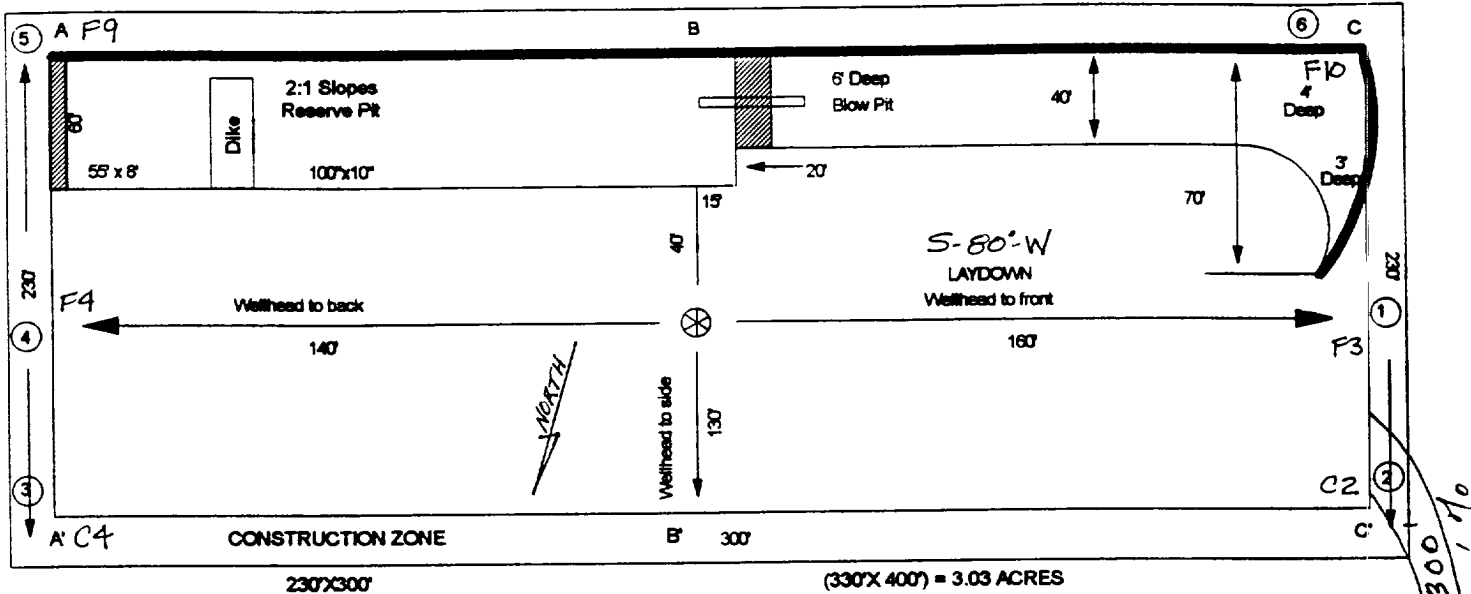
SEC 19 TWN 32 N.R. 6 WNMPM

CO: SAN JUAN

ST: N.M.

ELEVATION: 6477

DATE: 5-5-94

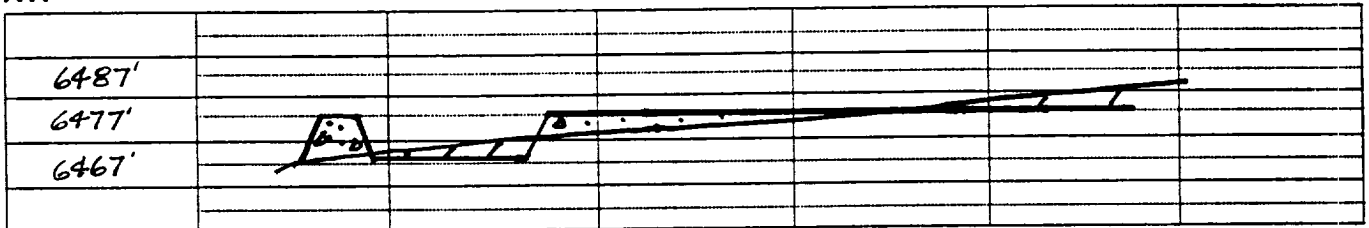


Reserve Pit Dike : to be 8' above Deep side; ( overflow - 3' wide and 1' above shallow side.)

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

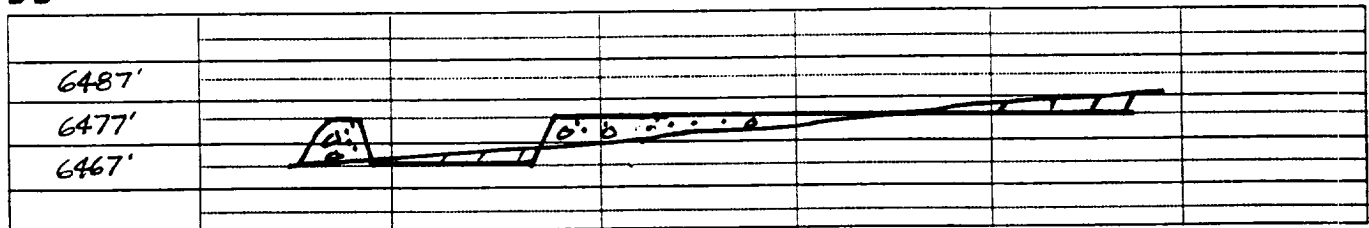
A-A'

C/L



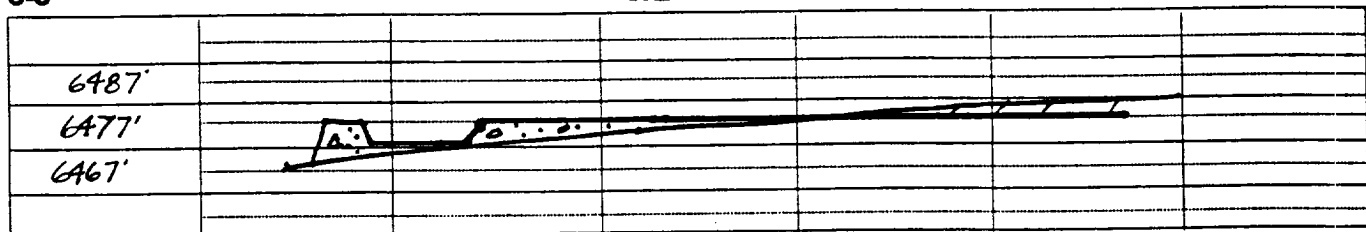
B-B'

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.