

9



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

May 27, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ANITA LOCKWOOD
CABINET SECRETARY

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

RECEIVED
JUN 3 1993
OIL CON. DIV
DIST. 3

Administrative Order NSL-3250

Dear Ms. Bradfield:

Reference is made to your application dated May 5, 1993 for an unorthodox Blanco-Mesaverde gas well location on a previously approved (Division Administrative Order NWU-284, dated August 6, 1958) non-standard 266.77-acre gas spacing and proration unit (GPU) for said Blanco-Mesaverde Pool comprising Lots 5 through 12 (N/2 equivalent) of Section 7, Township 31 North, Range 9 West, NMPM, San Juan County, New Mexico. Said GPU presently has dedicated thereon the Johnston Federal Well Nos. 7 and 7A located in Units A and F, respectively, of said Section 7.

By the authority granted me under the provisions of Rule 2(d) of the Special Rules and Regulations for the Blanco-Mesaverde Pool, as promulgated by Division Order No. R-8170, as amended, the following described well to be drilled at an unorthodox gas well location is hereby approved:

Johnston Federal Well No. 7-B
1275' FNL - 810' FWL (Unit C)

Further, Meridian is authorized to simultaneously dedicate Blanco-Mesaverde gas production on the subject GPU from the No. 7-B well with the two existing Well Nos. 7 and 7-A. Said wells and GPU will be subject to all existing rules, regulations, policies, and procedures applicable to prorated gas pools in Northwest New Mexico.

Sincerely,

A handwritten signature in dark ink, appearing to read "William J. LeMay".

William J. LeMay
Director

WJL/MES/amg

cc: Oil Conservation Division - Aztec
U. S. Bureau of Land Management - Farmington



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1100000000000000
AZTEC, NEW MEXICO 87410
(505) 334-0170

JOSEPH W. CAPRUTHERS
GOVERNOR

Date: 5-23-93

Attn: Mike Stagner

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Re: Proposed HC _____
Proposed DHC _____
Proposed HSL X _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 5-6-93
for the Mexican Oil Inc. Johnston Federal # 713
Operator Lease & Well No.

C-7-31N-910 and my recommendations are as follows:
Unit, S-T-R

APPROVE

Yours truly,

Eugene Busch

MERIDIAN OIL

May 5, 1993

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Meridian Oil Inc. Johnston Federal #7B
1275'FNL, 810'FWL Section 7, T-31-N, R-9-W
San Juan County, New Mexico

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the Mesa Verde formation.

This application for the referenced location is due to terrain as shown on the enclosed maps and this being a non-standard short section.

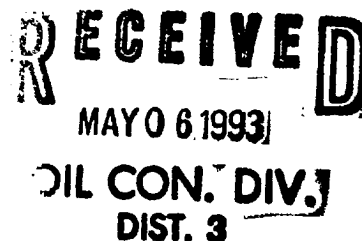
The following attachments are for your review:

1. Application for Permit to Drill.
2. Completed C-102 at referenced location.
3. Offset operators/owners plat. Meridian Oil is the operator of the surrounding proration unit.
4. 7.5 minute topographic map showing the orthodox windows for the north half dedication 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 \$200,000.

Sincerely,


Peggy Bradfield
Regulatory/Compliance Representative

encs.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

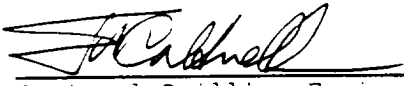
RECEIVED

MAY 06 1993

OIL CON. DIV.

DIST. 3

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SE-078439
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator MERIDIAN OIL	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Johnston Federal
	9. Well Number TB
4. Location of Well 1275'EML, 810'FWL Latitude 36° 54' 59", Longitude 107° 49' 16"	10. Field, Pool, Wildcat Blanco Mesa Verde
	11. Sec., Twn, Rge, Mer. Sec 7, T-31-N, R-9-W NMPM
14. Distance in Miles from Nearest Town 4 miles to Cedar Hill	12. County San Juan
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 810'	
16. Acres in Lease	17. Acres Assigned to Well 266.77 N/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 65'	
19. Proposed Depth 6177'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6556'GR	22. Approx. Date Work will Start 2nd quarter 1993
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by:  Regional Drilling Engineer	Date <u>4/21/93</u>

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

Archaeological Report will be submitted
Threatened and Endangered Species Report will be submitted

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

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
RECEIVED
MAY 06 1993
OIL CON. DIV.
DIST. 3

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

DISTRICT II
P.O. Drawer DD, Artesa, NM 88210

DISTRICT III
100 Rio Brizos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

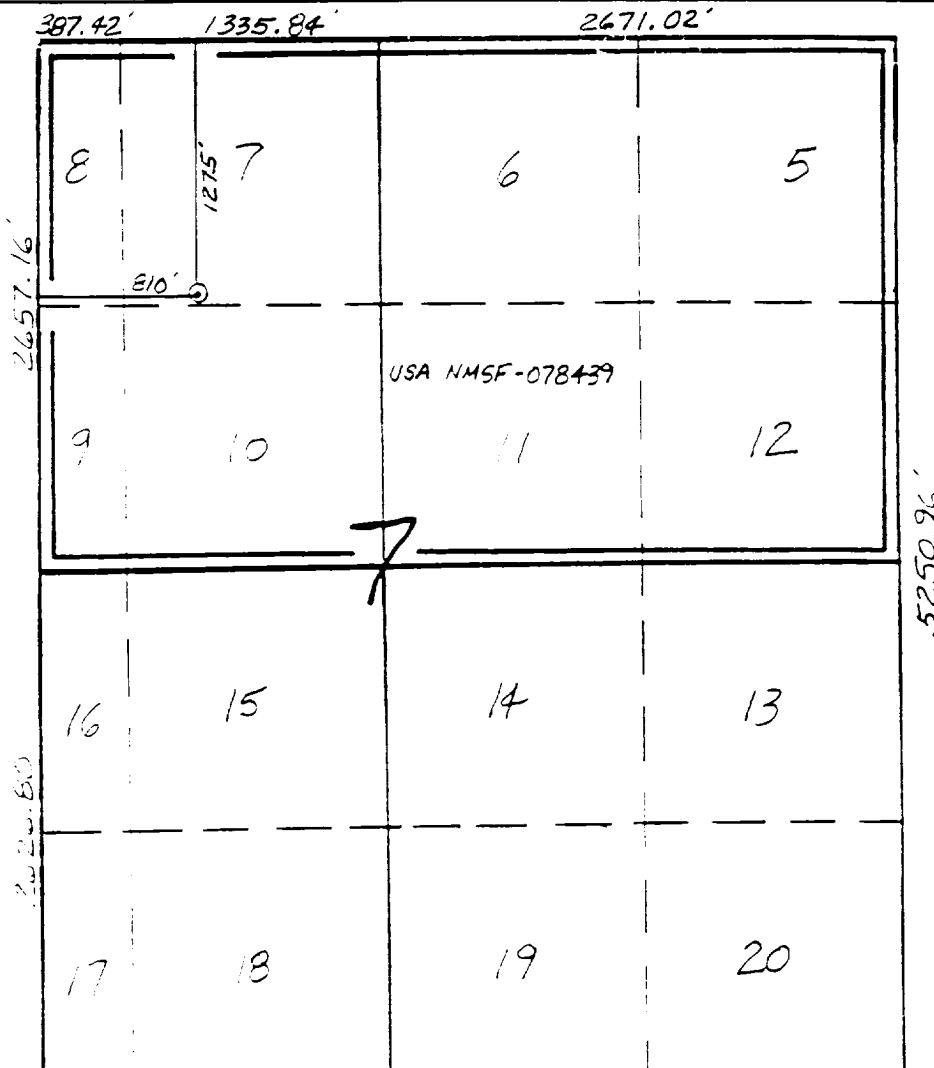
All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
Meridian Oil Inc.	Johnston Federal	7B
Grid Letter	Section	Township
C	7	10 North
Range	County	
9 West	SMPM	San Juan
Actual Footage Location of Well:		
1275 feet from the North line and	810 feet from the West line	
Ground level Elev.	Producing Formation	Pool
5556'	Mesa Verde	Blanco
		Dedicated Acreage:
		266.77 Acres

- Outline the acreage dedicated to the subject well by colored pencil or machine marks 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 will 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

1-14-93

Date

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 knowledge and belief.

1-26-93

Date Surveyed

Signature
Professional Surveyor

NEW MEXICO
6857
6857
Certificate No. 6857
Neale C. Edwards

April 21, 1993

OPERATIONS PLAN

Well Name: Johnston Federal #7B
Location: 1275'FNL, 810'FWL Section 7, T-31-N, R-9-W
 San Juan County, New Mexico
 Latitude 36° 54' 59", Longitude 107° 49' 16"
Formation: Blanco Mesa Verde
Elevation: 6556'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1872'	
Ojo Alamo	1872'	1904'	aquifer
Kirtland	1904'	3003'	gas
Fruitland	3003'	3383'	gas
Pictured Cliffs	3383'	3625'	gas
Lewis	3625'	4156'	gas
Intermediate TD	3825'		
Chacra	4156'	4133'	gas
Mesa Verde	4930'		gas
Upper Cliff House	4930'	5224'	gas
Massive Cliff House	5224'	5285'	gas
Menefee	5285'	5627'	gas
Massive Point Lookout	5627'	5737'	gas
Lower Point Lookout	5737'		gas & oil
Total Depth	6177'		

Logging Program:

Openhole Wireline Logging -
 Surface to Total Depth : GR/DIL
 Intermediate TD to Total Depth : GR/LDT/CNL/DIL
 Mud Logs/Coring/DST -
 Mud logs - none
 Coring - none
 DST - none

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
200-3825'	Weighted	8.4-9.1	30-60	no control
3825-6177'	Gas/Mist	n/a	n/a	n/a

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' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3825'	7"	20.0#	K-55
6 1/4"	3825' - 6177'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 6177' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 3000 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.

Intermediate TD to Total Depth -

11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

6" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 3000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" 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:

9 5/8" surface casing - cement with 180 sx Class "B" cement with 1/4# flocele/sx and 3# calcium chloride (212 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. 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.

7" intermediate casing -

Lead w/664 sx of 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 3# gilsonite/sx and 1/4# flocele/sx. Tail w/100 sx class "B" w/2# calcium chloride (1293 cu.ft. of slurry, 125% excess to circulate to surface). WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a temperature log will be run after 3 hours to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Nine bowspring centralizers spaced every other joint off bottom, with three spaced every fourth joint to the base of the Ojo Alamo at 1904'. Two circulating centralizers at the base of the Ojo Alamo at 1904'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to circulate liner top. Lead with 187 sx 50/50 Class "B" Poz with 2% gel, 0.6% fluid loss additive. Tail with 100 sx 50/50 Class "B" Poz with 2% gel, 0.6% fluid loss additive, 6.25#/sx gilsonite and 1/4#/sx cellophane flakes (450 cu.ft., 75% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom to top of the Mesa Verde or above. The liner hanger will have a rubber packoff.

- 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.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

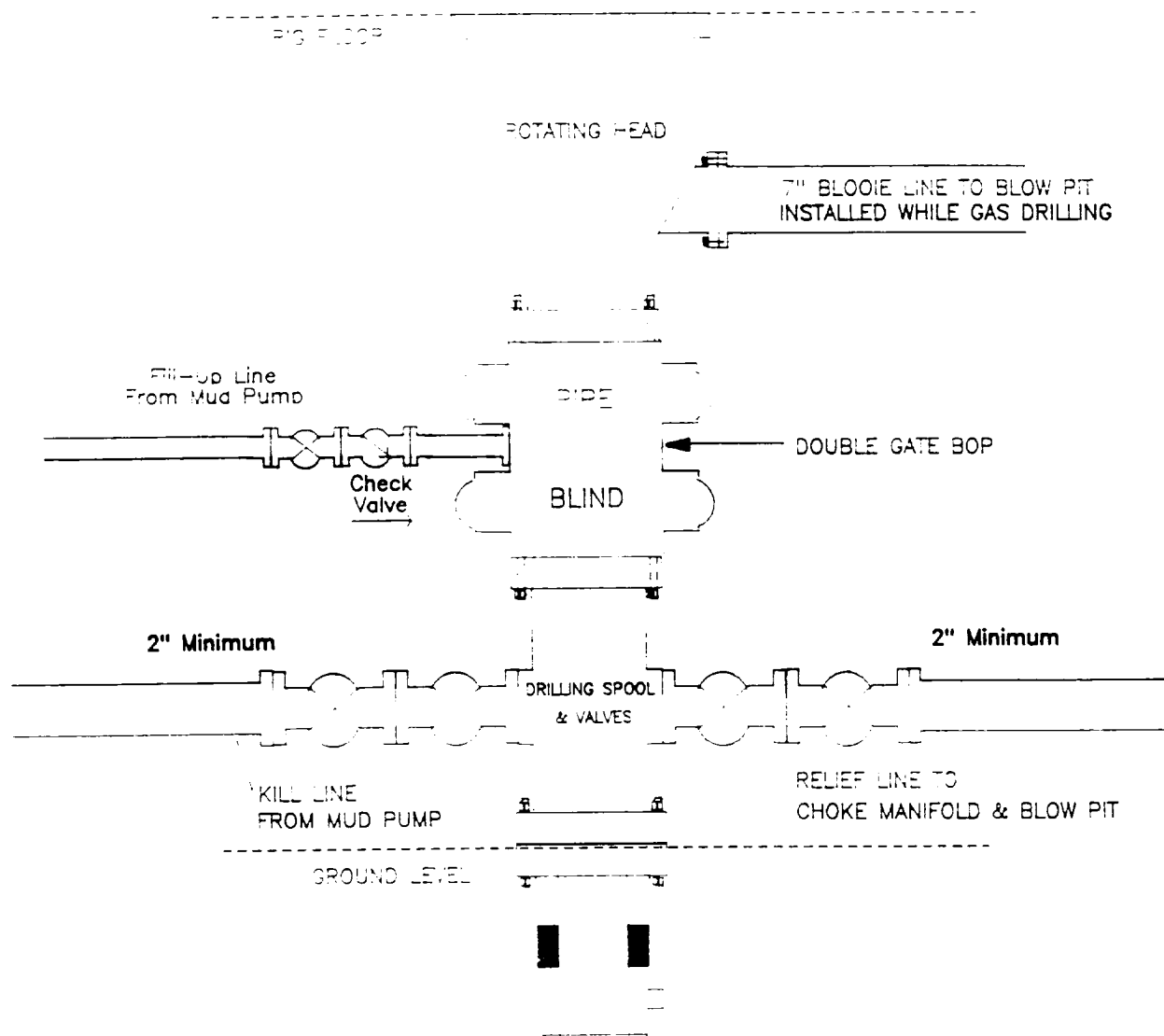
Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	1000 psi
Mesa Verde	700 psi
- 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 North half of Section 7 is dedicated to this well.
- This gas is dedicated.

MERIDIAN OIL INC.

Mesaverde Well BOP Configuration

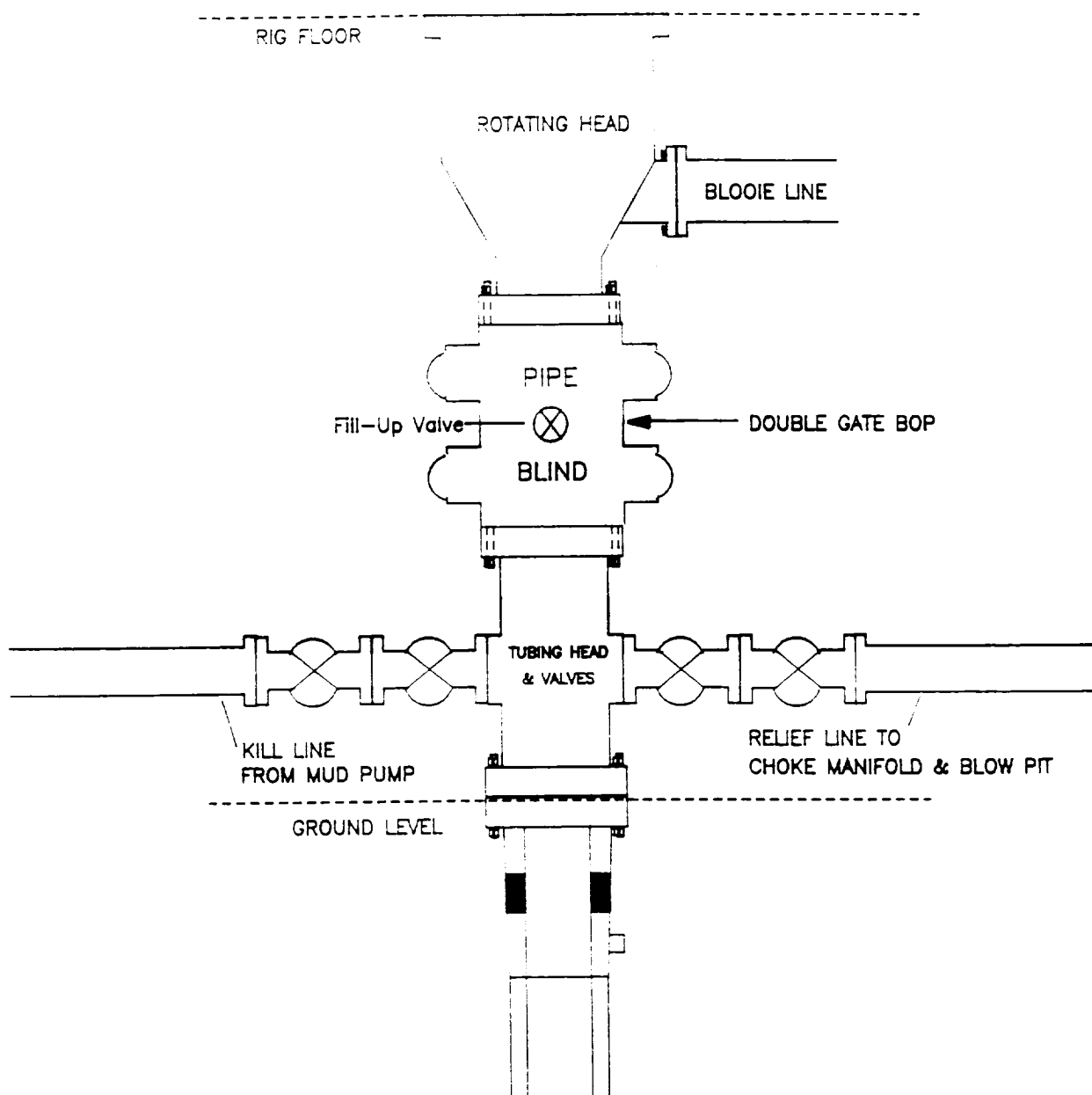


Minimum BOP installation for a Mesaverde well from Surface to Total Depth, 11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffner Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure or greater.

Figure #1

MERIDIAN OIL INC.

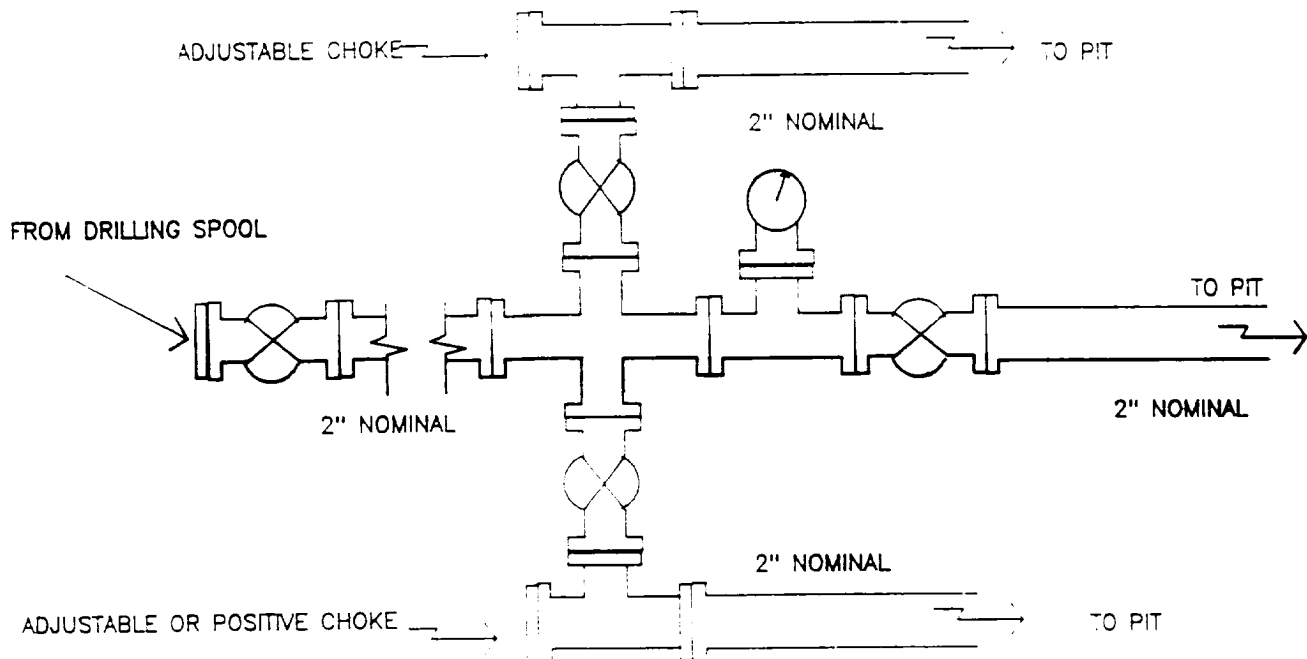
Mesaverde Well — Completion Rig BOP Configuration



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.
Mescalero Well
Choke Manifold Configuration



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

MERIDIAN OIL
Johnston Federal #7B
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 Hart Canyon Water Well located in NW/4 Section 28, T-31-N, R-10-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.

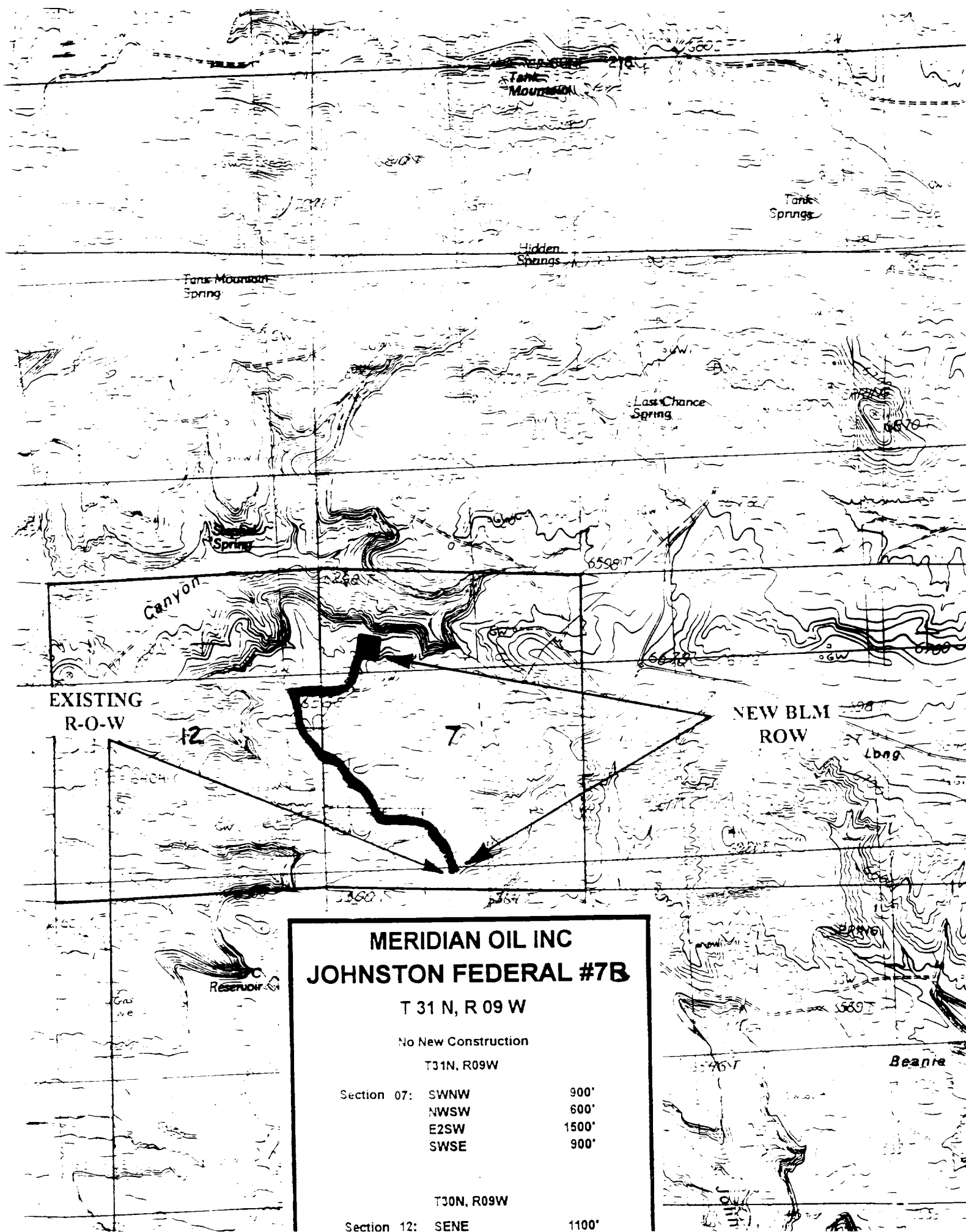
10. **Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will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

4/21/93
Date

JWC:pb



MERIDIAN OIL INC
JOHNSTON FEDERAL #7B

T 31 N, R 09 W

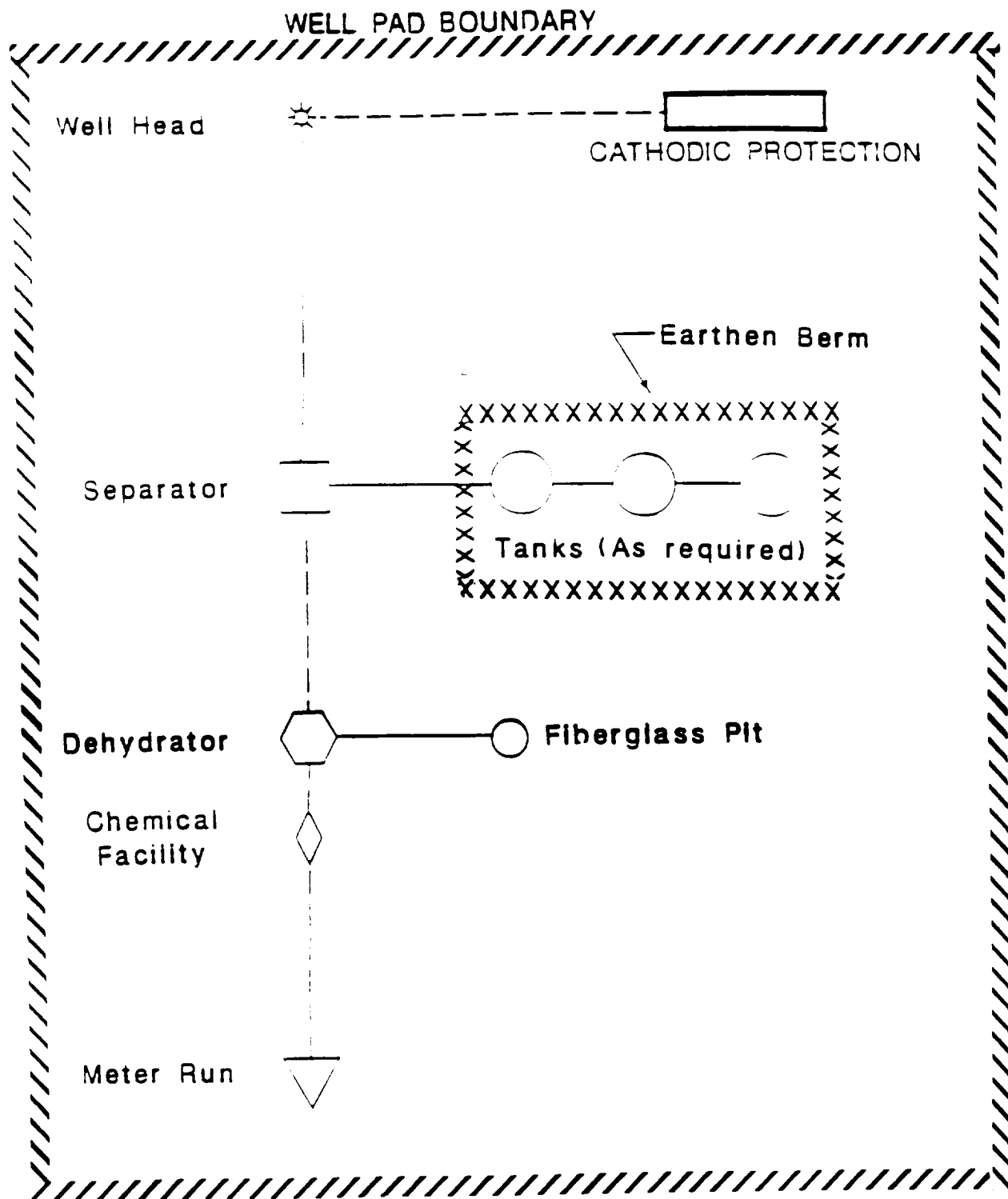
No New Construction

T31N, R09W

Section 07:	SWNW	900'
	NWSW	600'
	E2SW	1500'
	SWSE	900'

T30N, R09W

Section 12:	SENE	1100'
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PLAT #1

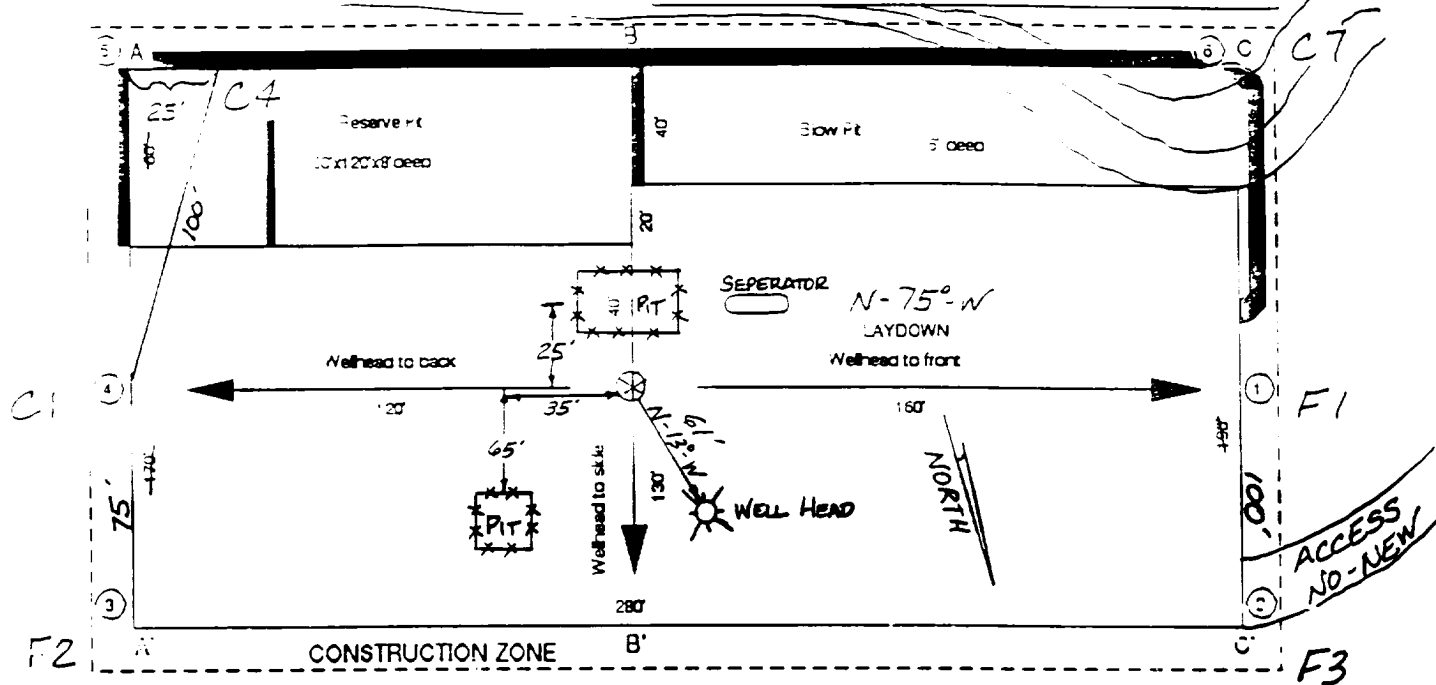
MERIDIAN OIL

ANTICIPATED
PRODUCTION FACILITIES
FOR A
MESA VERDE WELL

MERIDIAN OIL

Plat 5

Name: MOI JOHNSTON FEDERAL #7B
 Footage: 1275 FNL 210 FNL
 Sec 7 T. 31 N.R. 9 W NMPM
 Co. SAN JUAN St. NM
 Elevation: 6556' Date: 1-26-93



A-A'		C/L
6566		
6556		
6546		
B-B'		C/L
6566		
6556		
6546		
C-C'		C/L
6566		
6556		
6546		

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos 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 Johnston Federal		Well No. 7B
Unit Letter C	Section 7	Township 31 North	Range 9 West	County San Juan
Actual Footage Location of Well: 1275 feet from the North line and 810 feet from the West line				
Ground level Elev. 6556'	Producing Formation Mesa Verde	Pool Blanco	Dedicated Acreage: 266.77 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or backbone marks 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 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 will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-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

5-5-93

Date

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 knowledge and belief.

1-26-93

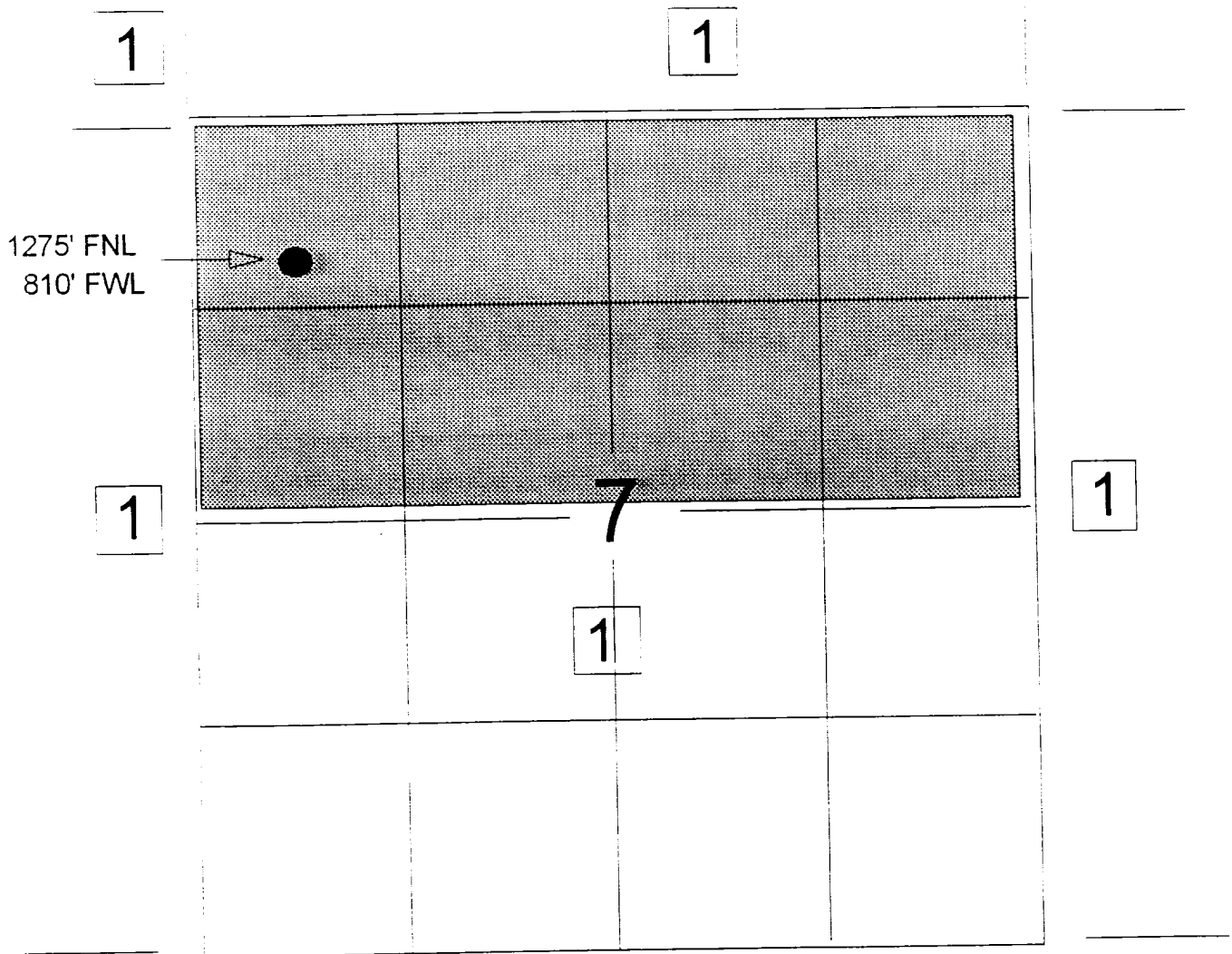
Date Surveyed

Signature
Professional Surveyor

NEW MEXICO
6857
6857
REGISTERED LAND SURVEYOR
Neale C. Edwards

MERIDIAN OIL INC.

OFFSET OPERATOR/OWNER PLAT
JOHNSTON FEDERAL #7B
Unorthodox Well Location
NW NW Section 7
Township 31 North, Range 9 West



1) Meridian Oil Inc., Operator, 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico
87499-4289

Tank
Mountain

Tank
Springs

Hidden
Springs

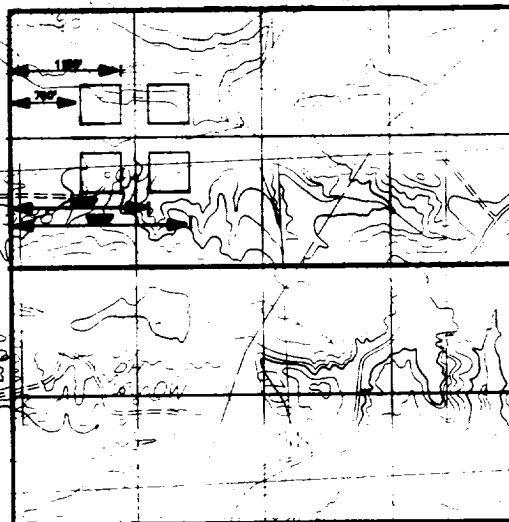
Tank Mountain
Spring

Last Chance
Spring

Stephens
Spring

N/2 DEDICATION

Canyon



6698

Long

STANDARD SECTION

Reservoir

Bean

MERIDIAN OIL

John
Brown

Tank Mountain

Hidden Springs

Tank Mountain Spring

Last Chance Spring

Stephen Spring

Canyon

Reservoir

well

PIPELINE