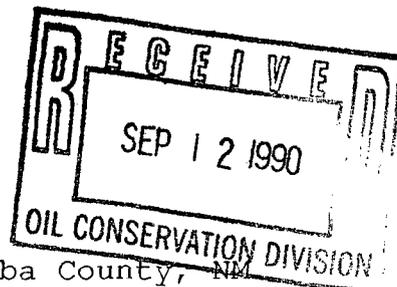


# MERIDIAN OIL

September 7, 1990

Mr. William LeMay  
New Mexico Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87503

Re: San Juan 30-6 Unit #498  
2185'FNL, 2295'FEL  
Section 30, T-30-N, R-7-W, Rio Arriba County, NM



Gentlemen:

This is an application for administrative approval for non-standard location of the referenced well in the Fruitland Coal formation. This location is necessary due to the terrain features of this section as shown on the topographic map.

The following are items for your consideration:

1. Application for Permit to Drill as filed with the Bureau of Land Management.
2. Completed C-102 showing well location, proration unit and leases within the unit.
3. Plat showing offset operators/owners.
4. 7.5 minute topographic map of well location, showing the orthodox windows for the east-half dedication; and enlargement of the map to define topographic features.
5. Archaeological report.
6. This well may be deemed economically unfeasible due to incremental directional drilling costs of \$88,000.00.
7. Affidavit of notification of offset operators/owners by certified mail, and waiver signed by Blackwood & Nichols.

Please let me know if you require further information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peggy Bradfield".

Peggy Bradfield  
Regulatory Affairs

encs.

xc: Bureau of Land Management, Farmington District  
New Mexico Oil Conservation Division, Aztec District

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL

1b. TYPE OF WELL  
GAS

2. OPERATOR  
EL PASO NATURAL GAS CO.

3. ADDRESS & PHONE NO. OF OPERATOR  
P O BOX 4289  
FARMINGTON, NM 87499

4. LOCATION OF WELL  
2185' FNL 2295' FEL

5. LEASE NUMBER  
NM-012709

6. IF INDIAN, ALL. OR TRIBE NAME

7. UNIT AGREEMENT NAME  
SAN JUAN 30-6 UNIT

8. FARM OR LEASE NAME  
SAN JUAN 30-6 UNIT

9. WELL NO.  
498

10. FIELD, POOL, OR WILDCAT  
BASIN FRUITLAND COAL

11. SEC. T. R. M OR BLK.  
SEC. 30 T30N R07W NMPM

14. DISTANCE IN MILES FROM NEAREST TOWN  
4 MILES NAVAJO DAM P.O.

12. COUNTY  
RIO ARRIBA

13. STATE  
NM

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE.  
2185'

16. ACRES IN LEASE  
320.00

17. ACRES ASSIGNED TO WELL

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. COMPL., OR APPLIED FOR ON THIS LEASE.  
500'

19. PROPOSED DEPTH  
3062'

20. ROTARY OR CABLE TOOLS  
ROTARY

21. ELEVATIONS (DF, FT, GR, ETC.)  
6222' GL

22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

\*SEE OPERATIONS PLAN

24. AUTHORIZED BY:   
REG. DRILLING ENGR.

7/18/90  
DATE

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US 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

Form C-102  
 Revised 1-1-89

**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 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

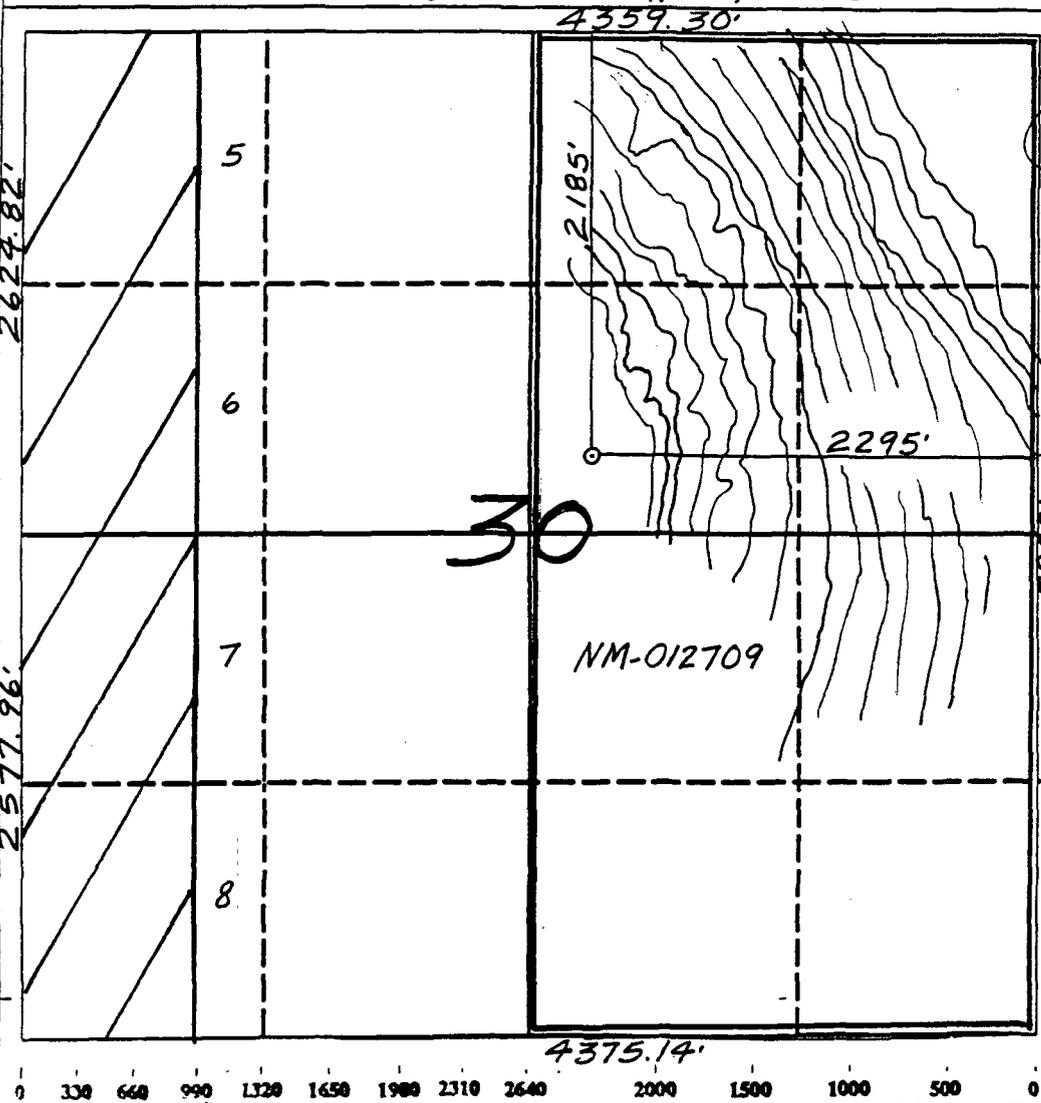
Operator <b>El Paso Natural Gas</b>		Lease <b>San Juan (NM-012709) 30-6 Unit</b>		Well No. <b>498</b>
Unit Letter <b>G</b>	Section <b>30</b>	Township <b>30 North</b>	Range <b>7 West</b>	County <b>NMPM Rio Arriba</b>
Actual Footage Location of Well: <b>2185</b> feet from the <b>North</b> line and <b>2295</b> feet from the <b>East</b> line				
Ground level Elev. <b>6222'</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin</b>	Dedicated Acreage: <b>320.00</b> Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 unitization

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.

*Peggy Bradford*  
 Signature  
 Printed Name  
**Peggy Bradford**

Position  
**Regulatory Affairs**

Company  
**El Paso Natural Gas**

Date  
**7-18-90**

**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.

Date Surveyed  
**6-1-90**  
*Neale G. Edwards*  
 Signature  
 Registered Professional Surveyor



Certificate  
**Neale G. Edwards**

Well Name: 498 SAN JUAN 30-6 UNIT  
 Sec. 30 T30N R07W  
 BASIN FRUITLAND COAL

2185'FNL 2295'FEL  
 RIO ARRIBA NEW MEXICO  
 Elevation 6222'GL

Formation tops: Surface- San Jose

Ojo Alamo-	1970		
Kirtland-	2160		
Fruitland-	2775		
Fruitland Coal Top-	2949	Intermediate TD-	2929
Fruitland Coal Base-	3060	Total Depth-	3062
Pictured Cliffs-	3076		

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 200	Spud	8.4 - 8.9	40-50	no control
	200 - 2929	Non-dispersed	8.4 - 9.1	30-60	no control
	2929 - 3062	Formation Water	8.4		no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2929	7"	20.0#	K-55
	6 1/4"	2879 - 3062	5 1/2"	15.5#	K-55

Tubing Program:	Depth Interval	Csg. Size	Weight	Grade
	0 - 3062	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2160'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

5 1/2" production casing - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

#### Cementing:

9 5/8" surface casing - cement with 160 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (189 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 423 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 935 cu ft. of slurry, 110% excess to circulate to surface. If hole conditions permit, a 600 ft spacer will be run ahead of the cement slurry to avoid mud contamination of the cement. WOC 12 hours. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

5 1/2" liner - do not cement.

## BOP and Tests:

Surface to intermediate TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600 psi for 30 minutes.

Intermediate TD to TD - 7 1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test blind rams and casing to 2500 psi for 30 minutes; all pipe rams and casing to 2500 psi for 30 minutes each.

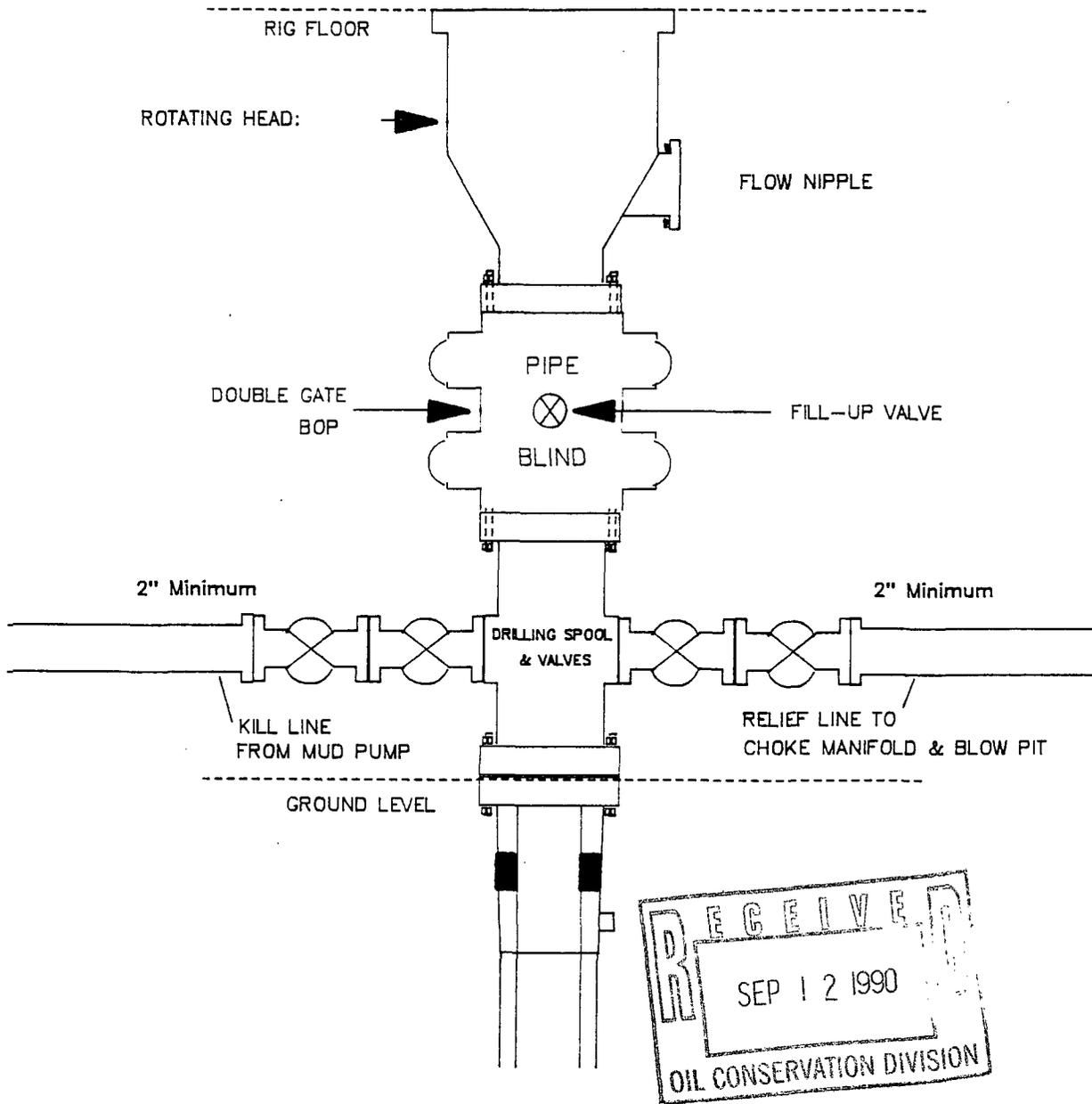
From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at 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 formation will be completed.
- \* Anticipated Fruitland pore pressure is 1554 psi.
- \* This gas is dedicated.
- \* The E/2 of Section 30 is dedicated to this well.
- \* New casing will be utilized.
- \* Cementing Contractor will provide the BLM with a chronological log including the pump rate and pressure, and the slurry density and volume for all cement jobs.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

**MERIDIAN OIL INC.**  
 Drilling Rig  
 BOP Configuration

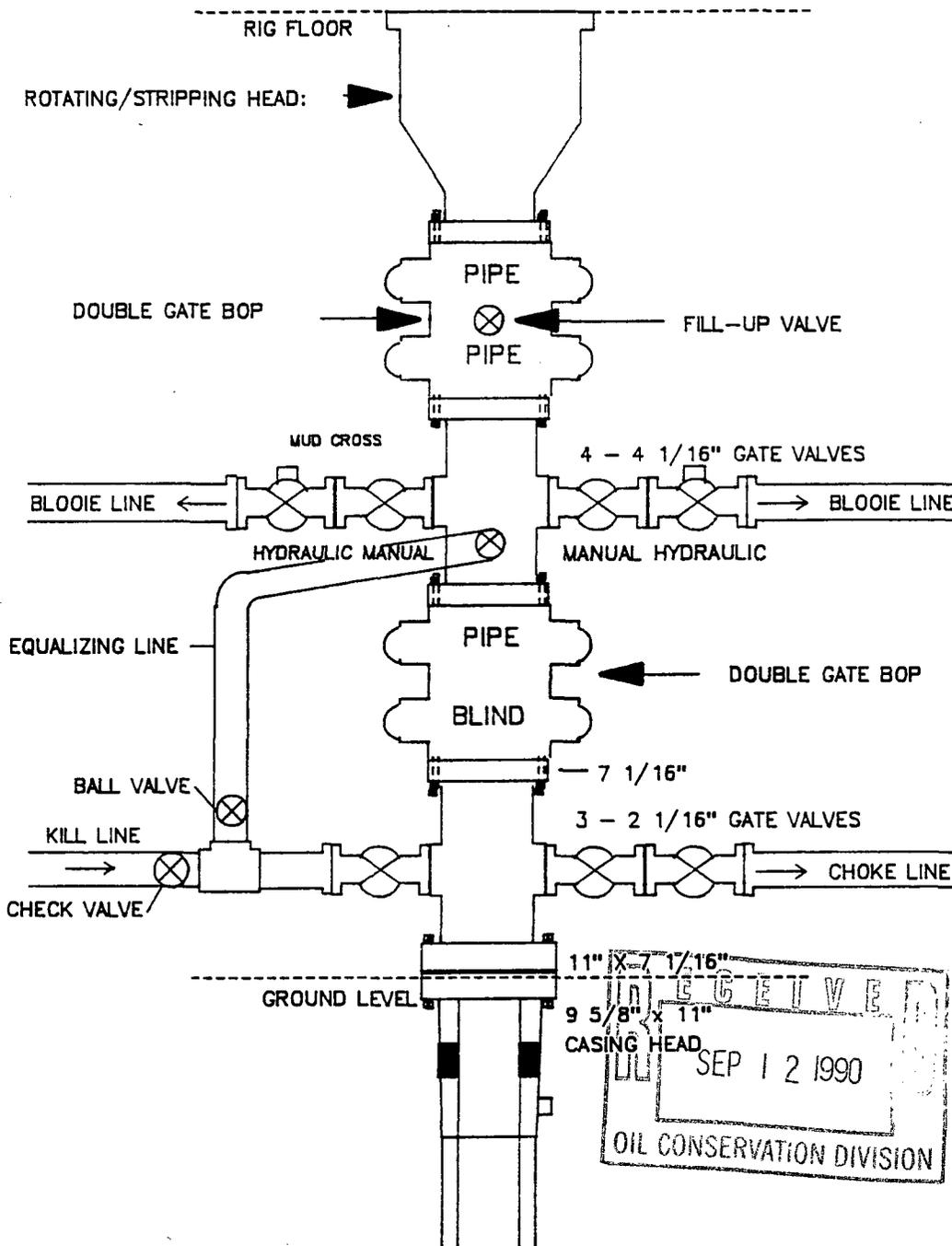


RECEIVED  
 SEP 12 1990  
 OIL CONSERVATION DIVISION

Minimum BOP installation for a typical Fruitland Coal well from surface to Intermediate casing point. 11" Bore (10" Nominal), 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 equivalent rotating head to be installed on the top of BOP. All equipment is 2000psi working pressure/or greater.

**Figure #1**

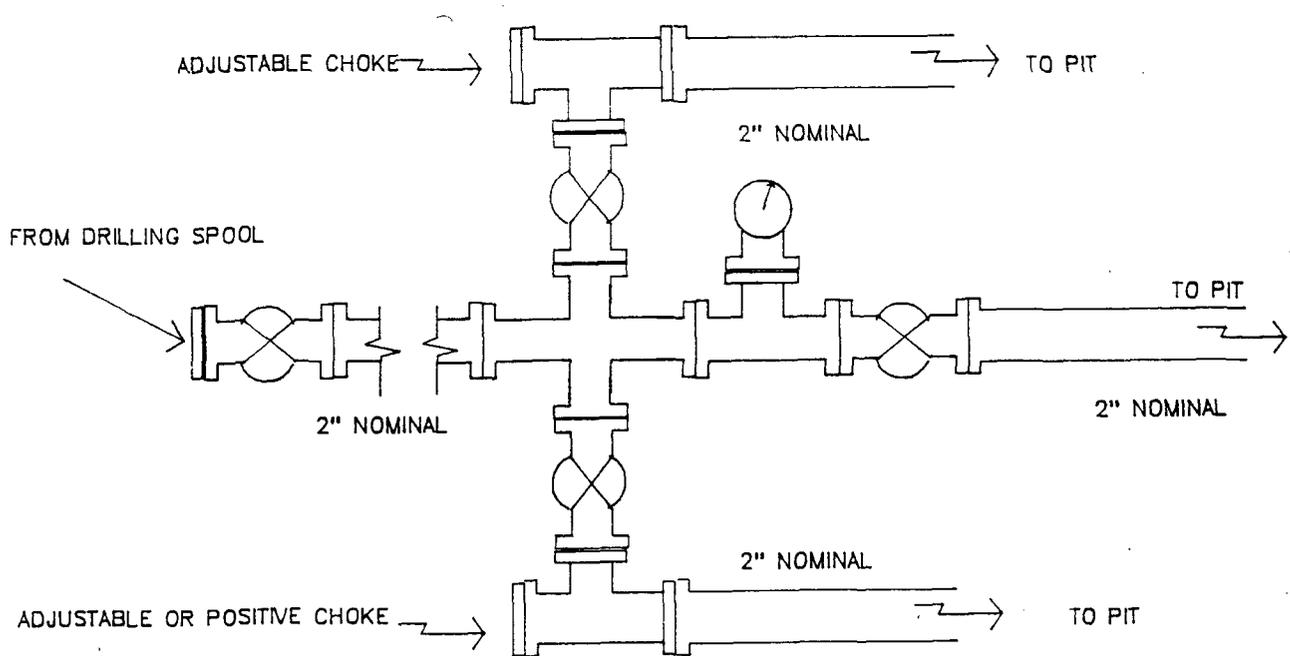
**MERIDIAN OIL INC.**  
 Completion Rig  
 BOP Configuration



Minimum BOP installation for a typical open-hole Fruitland Coal well from intermediate TD to TD. 7 1/16" Bore (6" Nominal), 2000psi working pressure/ or greater double stack double gate BOP equipped with three pipe and one blind ram.

**Figure #2**

**MERIDIAN OIL INC.**  
Typical Fruitland Coal Well  
Choke Manifold Configuration



Minimum choke manifold installation for a typical Fruitland Coal well from surface to Total Depth. 2", 2000psi working pressure equipment with two chokes.

**Figure #3**

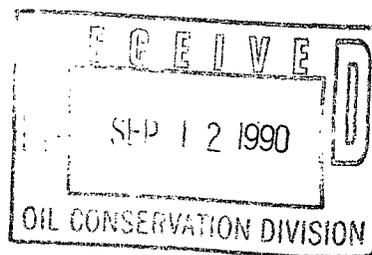
Multi-Point Surface Use Plan  
El Paso Natural Gas Co.  
San Juan 30-6 Unit #498

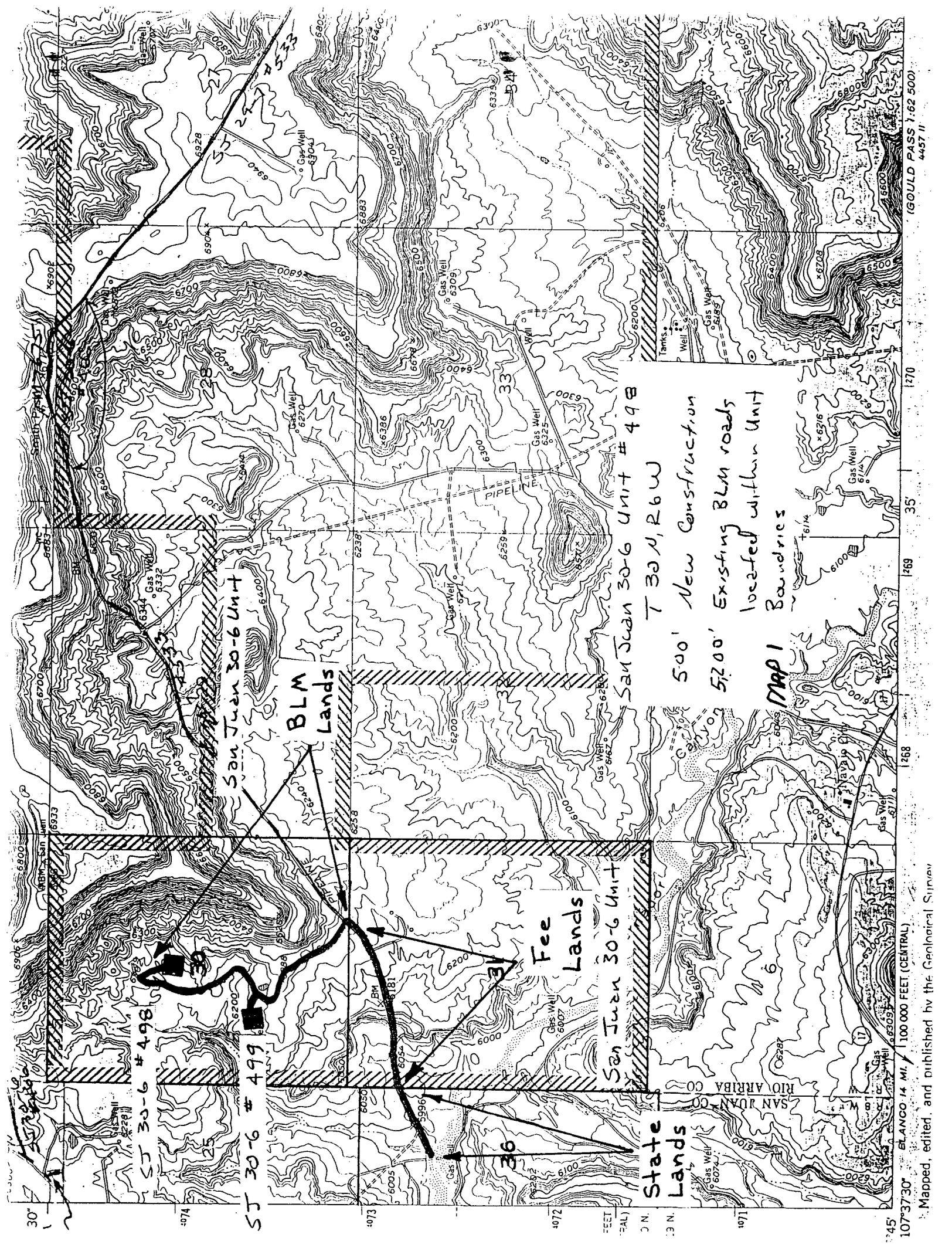
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access 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 500' 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 Manzanares Mesa Water Well #1 located in SW/4 Section 09, T-29-N, R-08-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 earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Hazardous waste will be disposed of in accordance with Federal Regulations.
8. Ancillary Facilities - None anticipated.
9. Wellsite Layout - Refer to the location diagram (Plat No. 2) and to the wellsite cut and fill diagram (Plat No. 2A). 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.

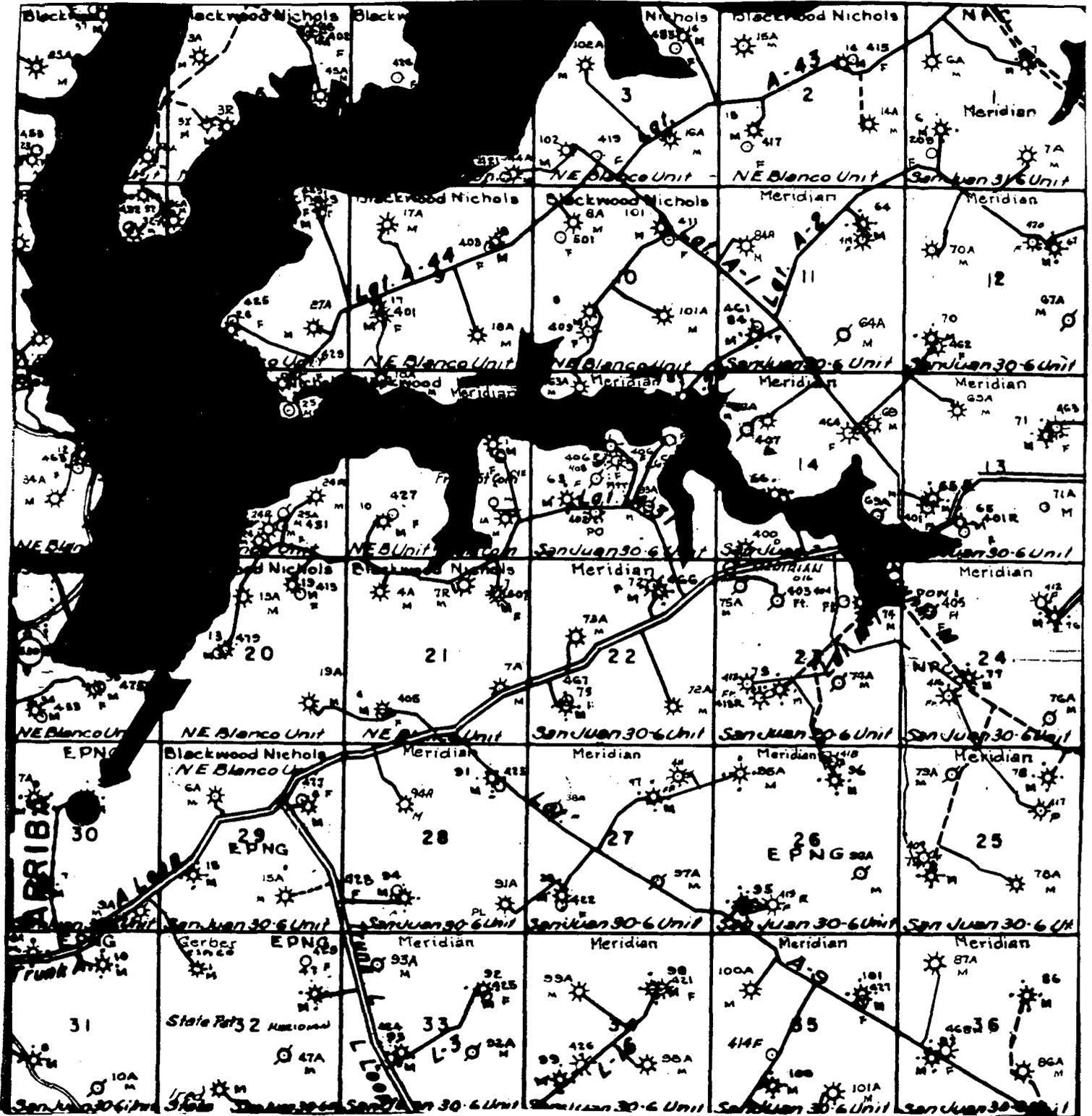
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be 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 El Paso Natural Gas Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

 7/18/90  
Regional Drilling Engineer

JWC/adw

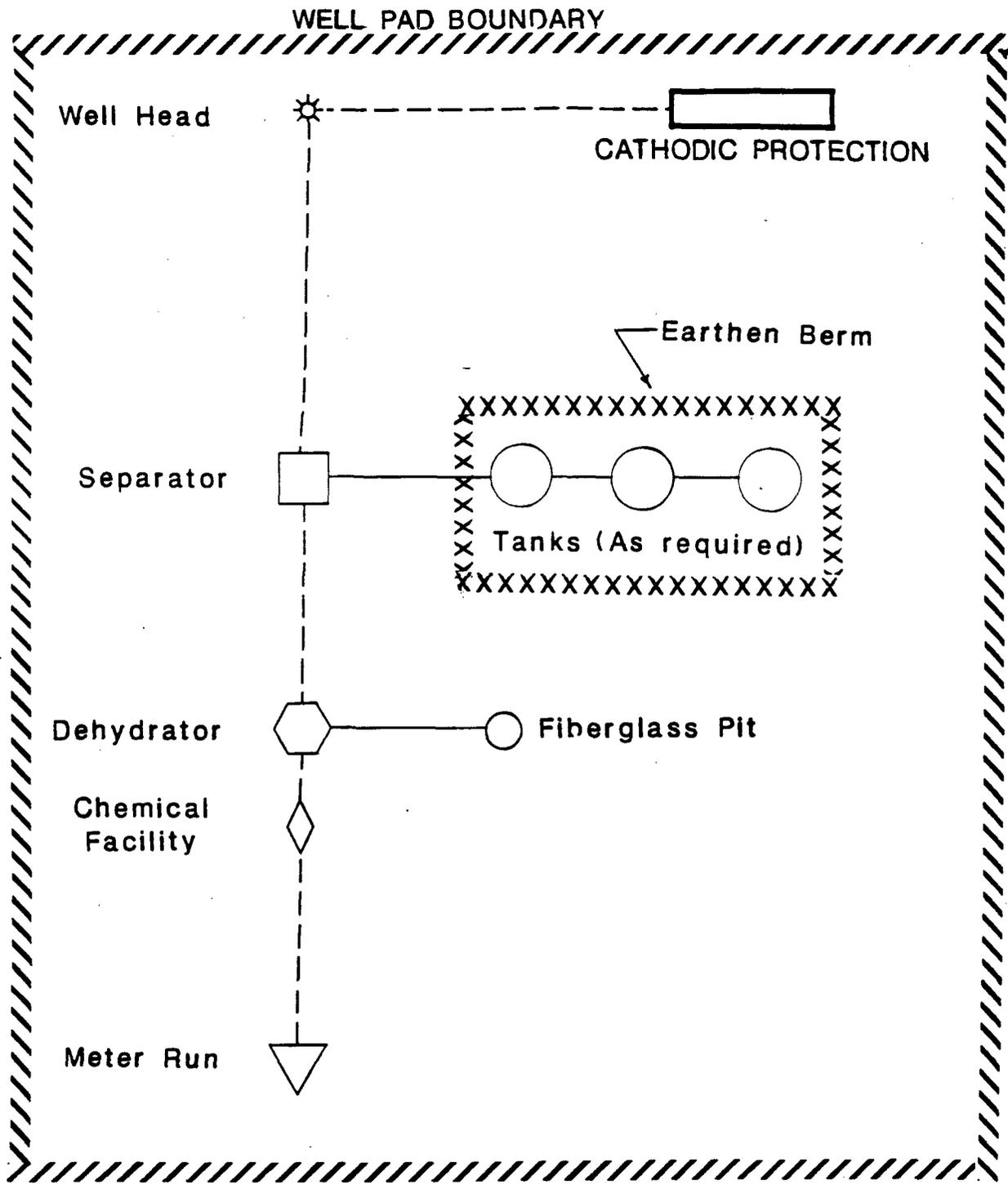






MERIDIAN OIL INC.  
 Pipeline Map  
 T-30-N, R-07-W  
 San Juan and Rio Arriba Counties, New Mexico

MAP 1A  
 30-6 Unit # 498



**PLAT #1**

**MERIDIAN OIL**  
 ANTICIPATED  
 PRODUCTION FACILITIES  
 FOR A  
 FRUITLAND WELL

KFR 2/90

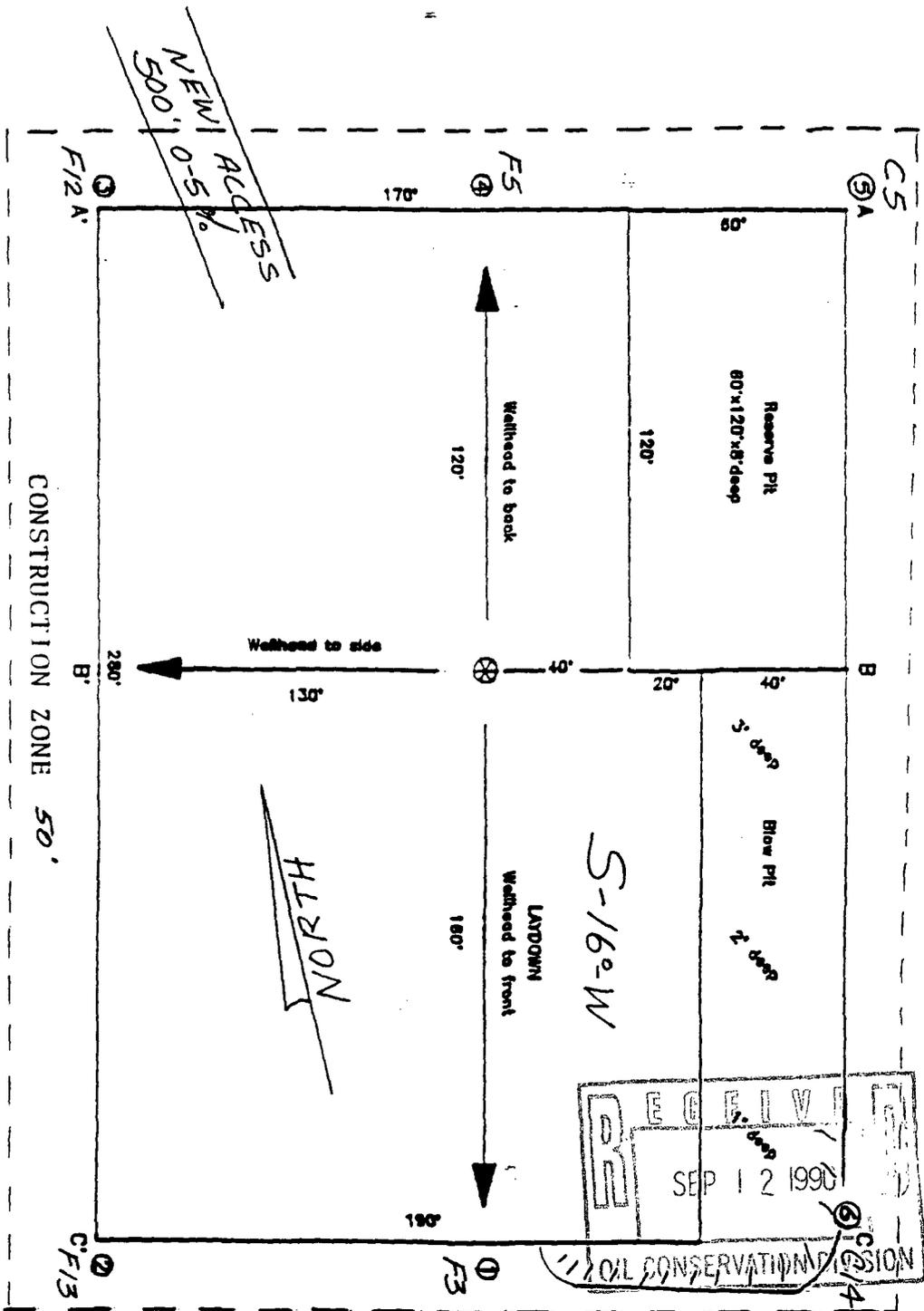
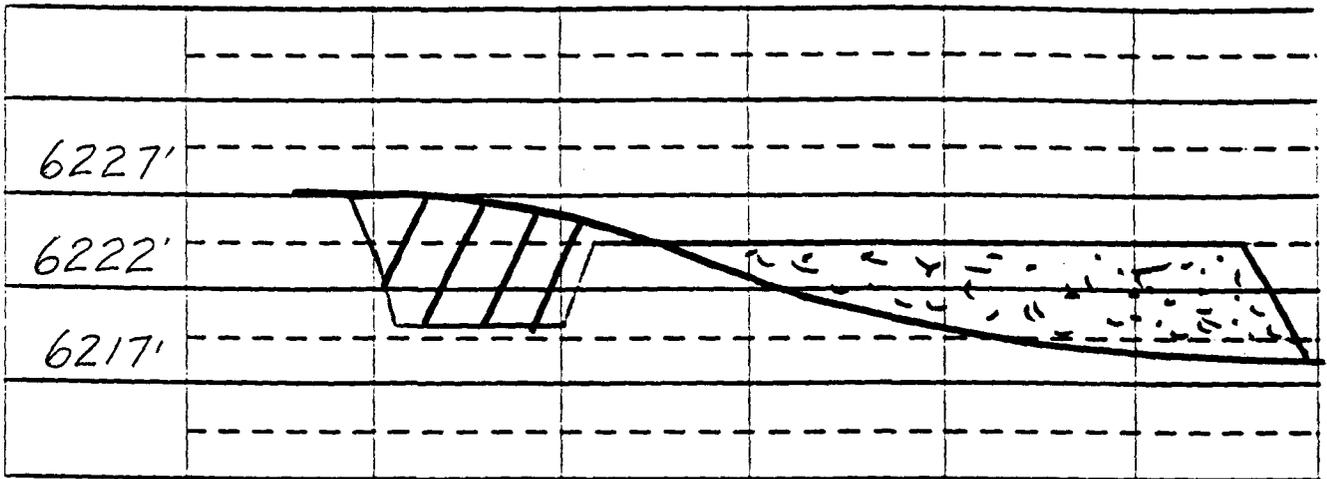


EXHIBIT: PIAT 2  
 Name: EPNG SAN JUAN 30-6 # 498  
 Footage: 2185 FNL 2295 FEL  
 Sec 30 T-30 -N, R-7 -W NMPM  
 Co. RIO ARRIBA St. N.M.  
 Elevation: 6222' Date: 6-1-90

Plat 2  
 2/3/90

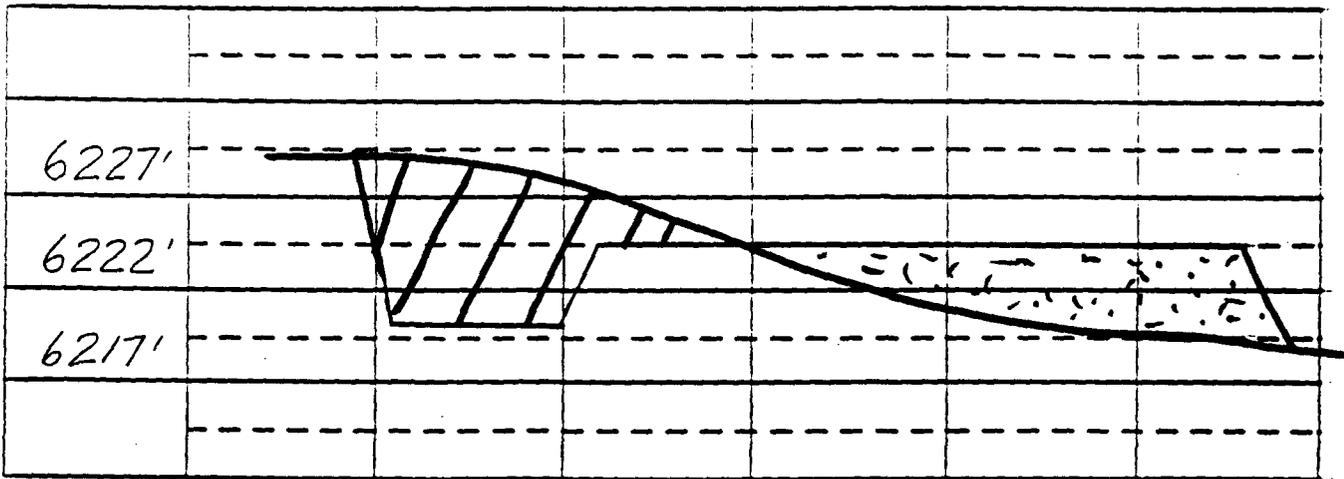
A - A' Vert: 1" = 20' Horiz: 1" = 50'

C/L



B - B'

C/L



C - C'

C/L

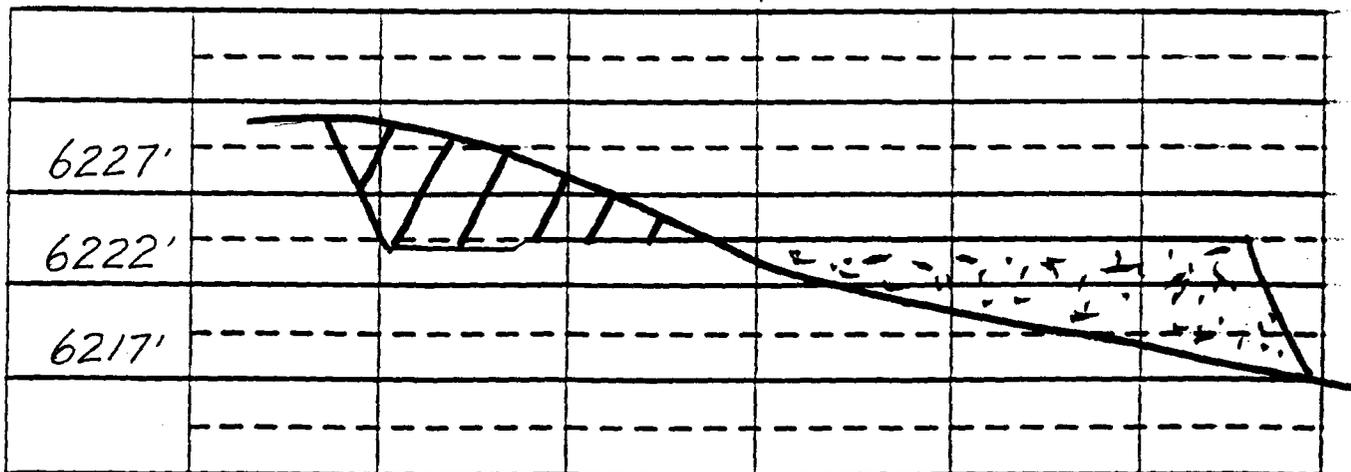


EXHIBIT: PIAT 2A  
 Name: EPNG SAN JUAN 30-6 UNIT # 498  
 Footage: 2185 FNL 2295 FEL  
 Sec. 30 T- 30 -N,R- 7 -W NMPM  
 Co. RIO ARRIBA St. N.M.  
 Elevation: 6222' Date: 6-1-90

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

**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 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

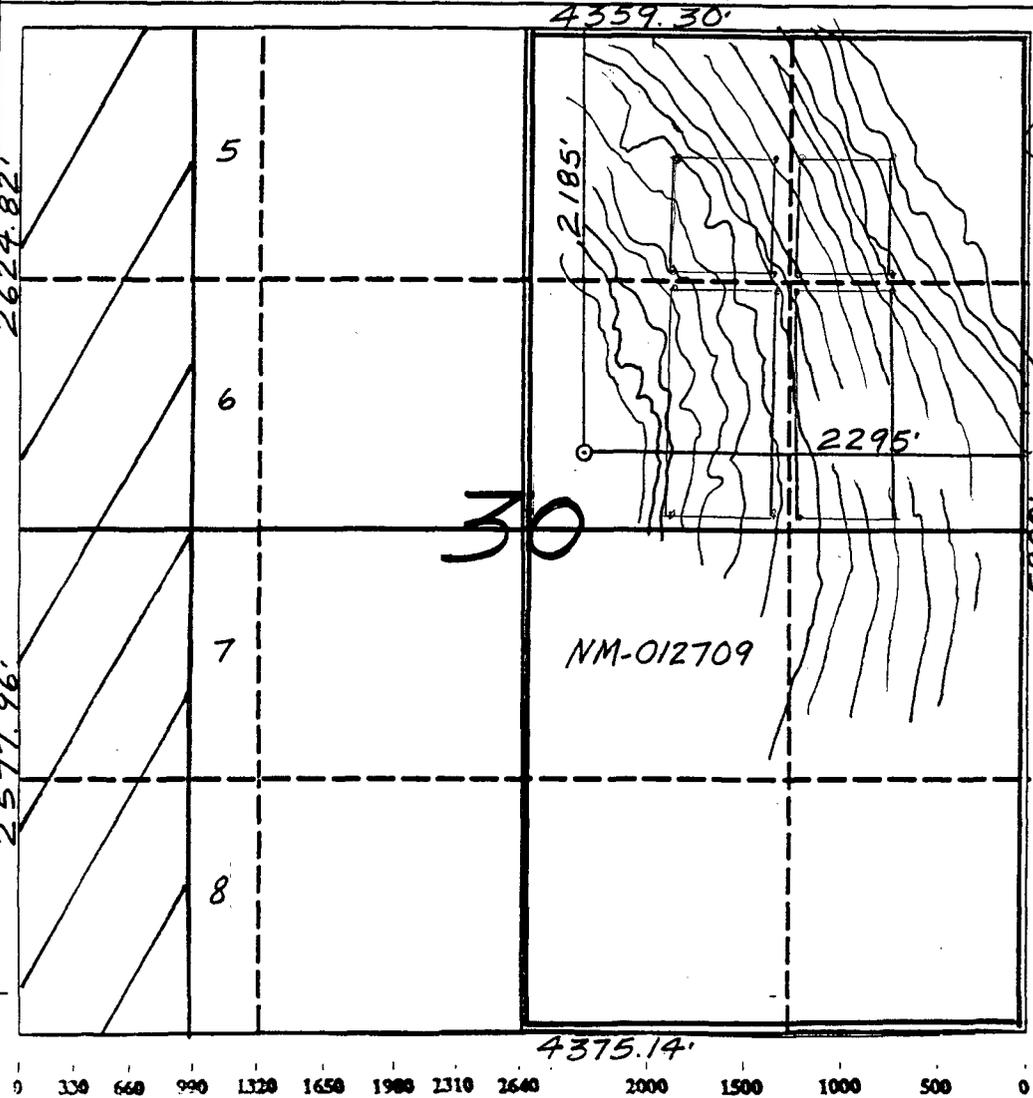
Operator <b>El Paso Natural Gas</b>		Lease <b>San Juan (NM-012709) 30-6 Unit</b>		Well No. <b>498</b>
Unit Letter <b>G</b>	Section <b>30</b>	Township <b>30 North</b>	Range <b>7 West</b>	County <b>NMPM Rio Arriba</b>
Actual Footage Location of Well: <b>2185</b> feet from the <b>North</b> line and <b>2295</b> feet from the <b>East</b> line				
Ground level Elev. <b>6222'</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin</b>	Dedicated Acreage: <b>320.00</b> Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 unitization

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.

*Peggy Bradford*  
Signature  
Peggy Bradford

Printed Name  
Regulatory Affairs

Position  
El Paso Natural Gas

Company  
8-27-90

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.

6-1-90

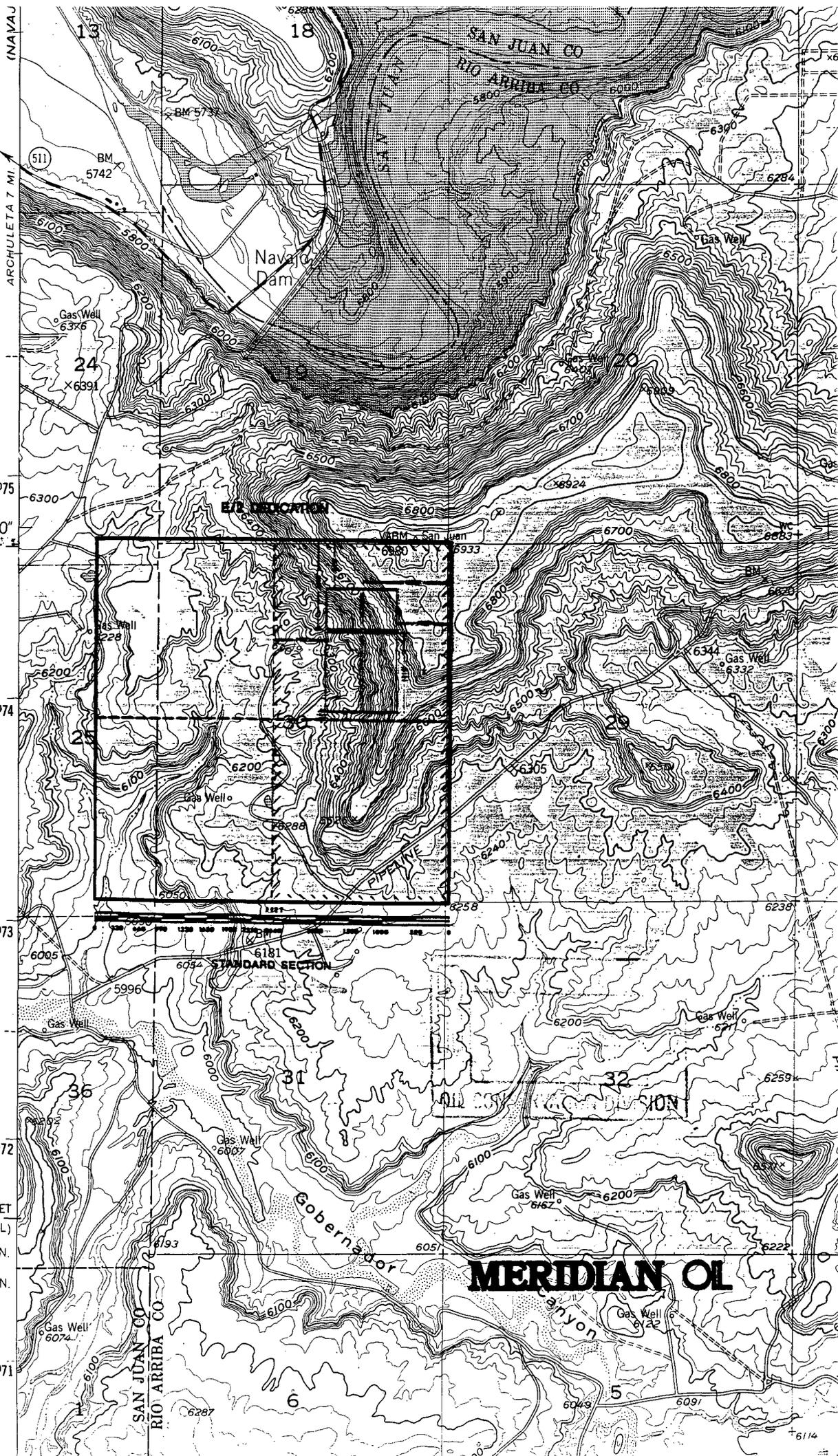
Date Surveyed

*Neale C. Edwards*  
Signature  
Professional Surveyor

NEW MEXICO  
6857  
REGISTERED LAND SURVEYOR

Certificate  
Neale C. Edwards





(NAVAJO)  
ARCHULETA 7 MI.

4075  
4730'

4074

4073

4072

2 100 000 FEET  
(CENTRAL)

T. 30 N.

T. 29 N.

4071

**MERIDIAN 01**

SAN JUAN CO  
RIO ARRIBA CO

Gobernador

anyon

Navajo Dam

SAN JUAN CO

RIO ARRIBA CO

E.I. DIVISION

W.C. DIVISION

STANDARD SECTION

13

18

24

20

25

28

36

31

32

6

5

6114

BM 5733

BM 5742

(511)

Gas Well 6376

X 6391

Gas Well 6228

Gas Well 6228

6181

Gas Well 6007

Gas Well 6074

6287

V.B.M. San Juan 6333

X 6924

X 6305

6258

6054

Gas Well 6167

6049

6091

Gas Well 6390

Gas Well 6389

Gas Well 6344

Gas Well 6332

Gas Well 6271

Gas Well 6200

Gas Well 6142

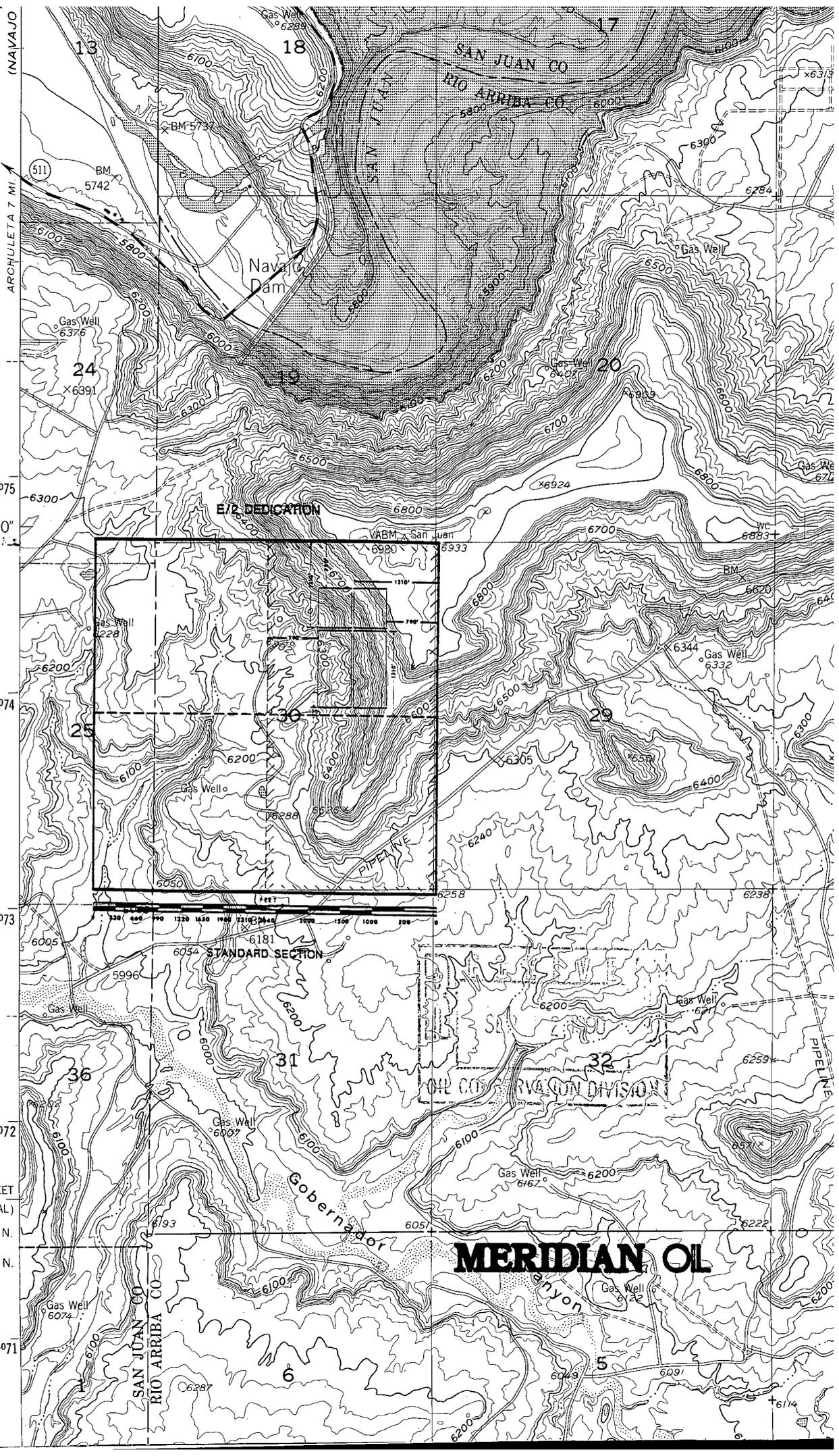
x6

Fill

6114

(NAVAJO)  
ARCHULETA 7 MI.

4075  
4730'  
4074  
4073  
4072  
2 100 000 FEET  
(CENTRAL)  
T. 30 N.  
T. 29 N.  
4071



E/2 DEDICATION

STANDARD SECTION

**MERIDIAN OIL**

SAN JUAN CO  
RIO ARRIBA CO

OIL CO. SURVEY DIVISION

Navajo Dam

Gobernador Canyon

SAN JUAN CO

RIO ARRIBA CO

13

18

17

24

19

20

25

30

29

36

31

32

6

5

BM 5737

BM 5742

Gas Well 6376

X 6391

6300

6200

6005

6100

6100

Gas Well 6289

6300

6500

6600

6200

6400

6050

6200

6100

6100

6200

6800

6900

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6000

6900

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6700

6600

6500

6400

6300

X 6375

X 6375

Gas Well 6390

Gas Well 6376

Gas Well 6376

Gas Well 6332

BM 5742

Gas Well 6376

Gas Well 6376

Gas Well 6376

Gas Well 6332

BM 5742

Gas Well 6376

Gas Well 6376

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Gas Well 6332

BM 5742

Gas Well 6376

Gas Well 6376

Gas Well 6376

Gas Well 6332

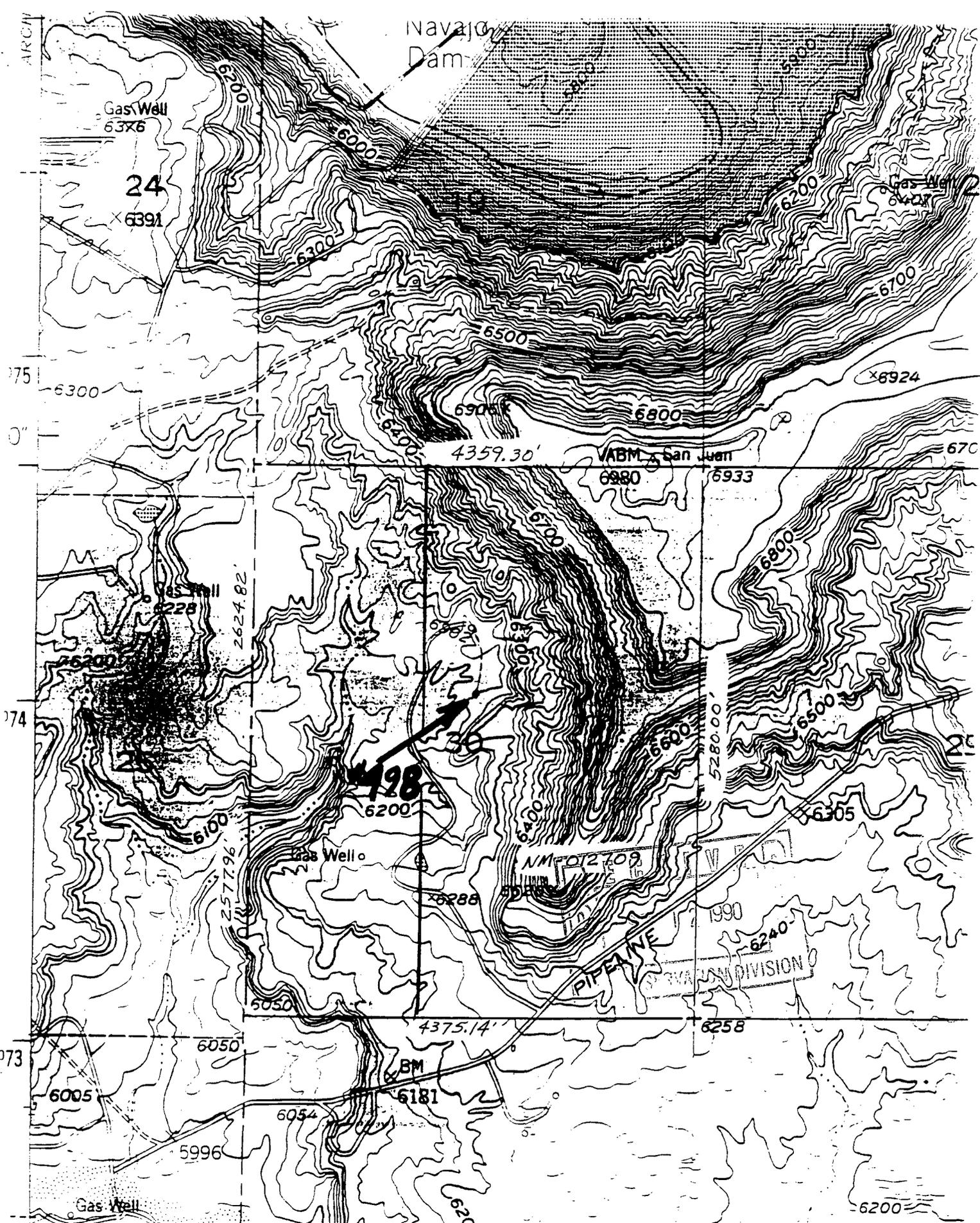
BM 5742

Gas Well 6376

Gas Well 6376

Gas Well 6376

Gas Well 6332



# MERIDIAN OIL

JUN 12 1990

FARMINGTON, NEW MEXICO  
Construction Supervisor

A CULTURAL RESOURCES INVENTORY  
OF THE EPNG SAN JUAN 30-6 UNIT, #498  
WELL LOCATION AND ACCESS ROAD  
LOCATED NEAR NAVAJO DAM, RIO ARRIBA COUNTY, NEW MEXICO

EPNG SAN JUAN 30-6 UNIT #498  
2185 FNL, 2295 FEL, SECTION 30, T.30 N., R.7 W.

CONDUCTED FOR:  
MERIDIAN OIL INC.

PREPARED BY:

Douglas D. Dykeman  
Larry L. Baker



**DAGGETT & CHENAULT, INC**  
OIL & GAS PROPERTY MANAGEMENT  
3539 E. 30th STREET, SUITE 7B  
FARMINGTON, N.M. 87401



Report No. 90-DCI-004

Bureau of Land Management Cultural Resource Use Permit No. 91-2920-90-A

June 11, 1990

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only)

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## INTRODUCTION

On June 6, 1990, an archaeological survey of the proposed EPNG San Juan 30-6 Unit, No. 498 well pad and access was conducted by personnel of Daggett & Chenault, Inc., Archaeological Services Department. The project area for the proposed well pad and access is located on lands administered by the Farmington Resource Area of the Bureau of Land Management's Albuquerque District and are located within Rio Arriba County, New Mexico. A Class III cultural resources inventory of the proposed well pad and access was completed under the authority of Bureau of Land Management Cultural Resources Use Permit No. 91-2920-90-A.

Greater awareness and public concern for the preservation of our cultural heritage has prompted legislation by federal, state, and tribal governments to protect historical, ethnographic, and archaeological cultural resources. Cultural resource management investigations are mandated and authorized by federal legislation and stipulations. These regulatory acts include: 1) the Federal Antiquities Act of 1906 (P.L. 59-209); 2) the National Historic Preservation Act of 1966 (P.L. 89-665); 3) the National Environmental Protection Act of 1969 (P.L. 91-190); 4) Executive Order 11593: "Protection and Enhancement of the Cultural Environment" 1971 (36 F.R. 8921); 5) the Archaeological Resources Protection Act of 1979 (P.L. 95-96); and 6) the American Indian Religious Freedom Act of 1979 (P.L. 95-341). Work conducted in conjunction with this project is intended to comply with the statutes contained in these laws.

The project was undertaken at the request of Mr. Gordon Chenault who is acting as permit agent for Meridian Oil, Inc. The project was administered by Larry L. Baker, Director Archaeological Services, Daggett and Chenault, Inc. The field work was conducted by Larry L. Baker and Douglas D. Dykeman. The project area was staked at the time of the survey and the archaeologists were unaccompanied in the field.

The proposed well pad project is located approximately 1.5 miles south of Navajo Dam on a high bench north of Gobernador Canyon (Figure 1). The well pad measures 230 feet by 280 feet but the area surveyed for cultural resources measures 530 feet by 580 feet in order to include the construction zone and the cultural buffer. The proposed access road measures 500 feet in length and 30 feet in width. A 500 ft. by 130 ft. area was surveyed for the access road to accommodate the cultural buffer zone. The total area inspected for the well pad and access was 372,400 square feet (8.55 acres).

4457 1  
ARCHULETA 7 MI  
NAVAJO DAM 1:62

Pine river, N. Mex., 7.5' USGS Quadrangle  
Photorevised 1982  
NE 1/4, Section 35, T30N, R7W (NMPM)  
Rio Arriba County, NM.

**Proposed Access Road**  
**Proposed Well Location**

Figure 1: Vicinity map for the proposed San Juan 30-6 Unit Well Number 498. (90-DCI-004)

2 100 000 FEET  
(CENTRAL)  
T. 30 N.  
T. 29 N.

During the survey of the well pad and access one isolated occurrence was observed. Archaeological clearance is recommended for the EPNG San Juan Unit #498 well pad and access. Details of the project, cultural resources and recommendations are included later in this report.

#### PREFIELD RECORDS SEARCH

Searching existing records is essential in any cultural resources management undertaking in order to determine what portions of an area have been previously inspected and what sites, if any, have been identified. On June 6, 1990, a records search of the Bureau of Land Management Farmington Resource Area files was completed for the project. The file search was completed prior to initiating field work for the project. The locations of previously recorded sites are illustrated on the Nearby Sites Maps in Appendix A and are included only with the Bureau of Land Management's copies of this report.

In total, eighteen previously documented sites are located within a one-mile radius of the proposed well location. Two of the documented sites contain Anasazi and Navajo occupational components, five sites are of Anasazi cultural affiliation and six sites are of Navajo cultural affiliation. Four sites are prehistoric, but of unknown cultural affiliation and no information was found regarding LA 3186, which was apparently recorded during the survey of Navajo Reservoir.

#### PROJECT LOCATIONS AND DESCRIPTIONS

##### EPNG San Juan 30-6 Unit #498

Legal Description:	SW 1/4, SW 1/4, NE 1/4, Section 30, T.30 N., R.7 W. NMPM, Rio Arriba County, New Mexico (Figure 1 & 2)
Elevation:	6222 ft.
Map Reference:	Pine River, New Mexico 7.5' USGS Quadrangle, 1971 (Photorevised)
Land Jurisdiction:	Bureau of Land Management, Farmington Resource Area

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

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**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 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 El Paso Natural Gas		Lease San Juan 30-6 Unit		Well No. 498
Unit Letter G	Section 30	Township 30 North	Range 7 West	County NMPM Rio Arriba
Actual Footage Location of Well: 2185 feet from the North line and 2295 feet from the East line				
Ground level Elev. 6222'	Producing Formation	Pool	Dedicated Acreage: Acres	

marks on the plat below.

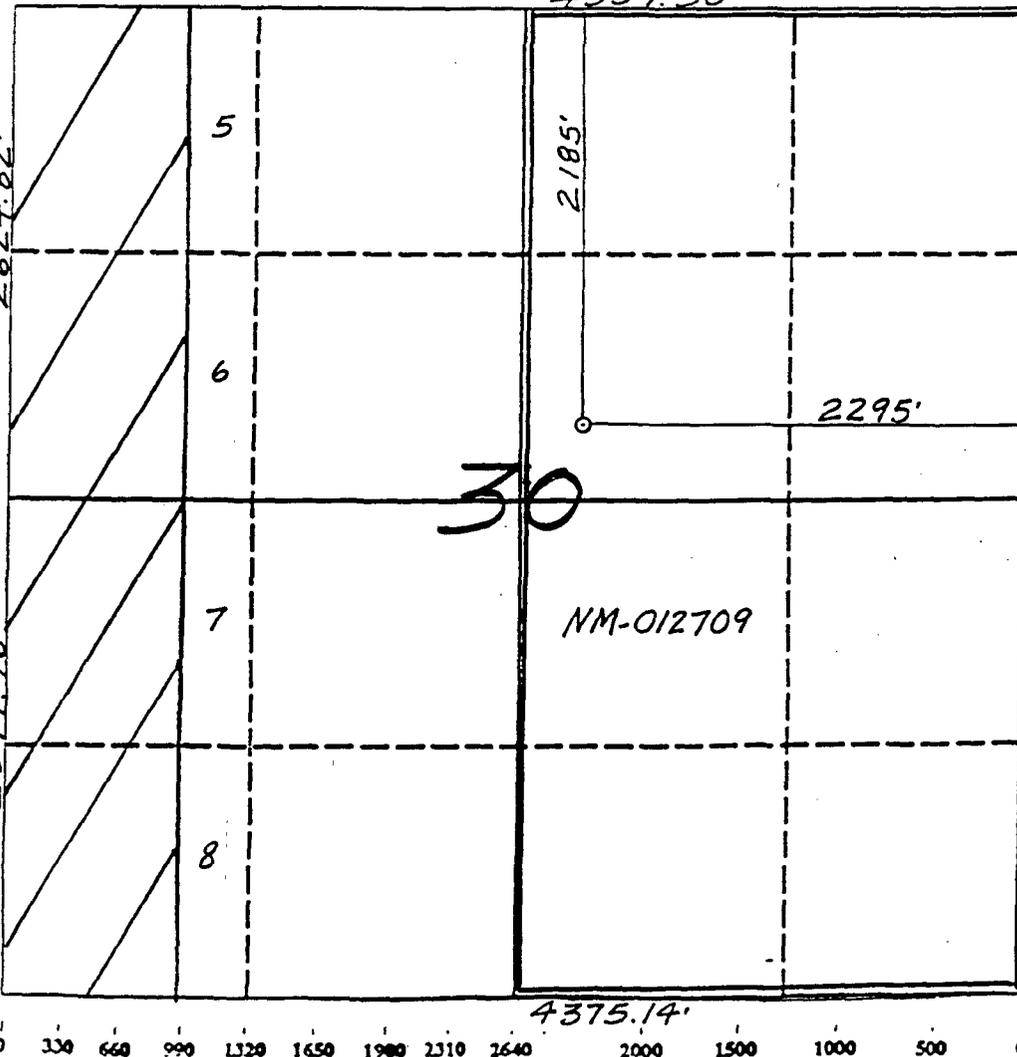
ownership thereof (both as to working interest and royalty).

interest of all owners been consolidated by communitization.

ation  
 consolidated. (Use reverse side of

ted (by communitization, unitization, forced-pooling, or otherwise)  
 Division.

Figure 2: Well location plat for the San Juan 30-6 Unit #498 (90-DCI-004)



**OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature \_\_\_\_\_  
 Printed Name \_\_\_\_\_  
 Position \_\_\_\_\_  
 Company \_\_\_\_\_  
 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.  
 Date Surveyed 6-1-90

Signature \_\_\_\_\_  
 Professional Surveyor  
 REGISTERED LAND SURVEYOR  
 NEALE EDWARDS  
 Certificate No. 6857

Project Area: The area of effect for the proposed well pad and construction zone measures 380 feet by 330 feet; totalling 2.88 acres. The area of effect for the proposed access road is 500 feet by 30 feet; totalling 0.34 acres.

Area Surveyed: Archaeological survey, including the cultural buffer zone, for the proposed well pad measured 580 feet by 530 feet; totalling 7.06 acres in the area. The archaeological survey area for the proposed access road measures 500 feet by 130 feet; totalling 1.49 acres.

#### FIELD METHODOLOGY

The proposed well pad was staked in the field prior to the archaeological inspection. The well center was marked with a steel fence post, and the four corners, rear end, and lay down marked with lath. The proposed route of the access road was marked with fluorescent orange ribbon flagging.

The archaeological survey of the well pad was conducted by walking a series of parallel, zig-zag transects that were oriented, northwest to southeast, parallel to the long axis of the well pad. The access road was surveyed by four pedestrian transects; two on either side of the flagged centerline.

The construction and buffer zones were inspected employing a transect interval of 35 to 40 feet. Weather conditions at the time of the field work were sunny and hot, facilitating the survey and field observations. The ground surface was clear and dry at the time of the survey and the vegetative cover was approximately 10 percent.

When artifacts were observed during survey, their distribution was delineated by marking artifact locations with pin flags. Archaeological sites and isolated artifacts, if encountered, were recorded on Museum of New Mexico, Laboratory of Anthropology, Archaeological Site Survey Forms and Isolated Occurrence Forms, respectively. Completed forms documenting these cultural resources are included in Appendix B.

## PHYSIOGRAPHY AND ENVIRONMENT

The project area is located on the south side of the inter-fluve that divides Gobernador Canyon and the San Juan River. It is situated on the upper portion of a bench that overlooks a tributary of Gobernador Canyon. The rugged canyon and mesa territory that surrounds the project area is the result of the effects of erosion on the Nacimiento Formation. Alluvial and aeolian sediments composed of fine to medium grained sand are the product of the erosional process. These sediments support an open pinyon-juniper woodland which consists of an overstory of pinyon (*Pinus edulis*), Juniper (*Juniperus* sp.), and tall shrubs such as mountain mahogany (*Cercocarpus montanus*). The understory consists of various forbs, grasses and succulents. Fauna indigenous to the area consists of elk, deer, porcupine, coyote, rabbits, and a variety of reptiles and birds.

Prehistorically, native flora and fauna observed during survey could have been used by aboriginal populations for food, clothing, and select types of tools. Non-food resources in the area include sandstone and cobbles for building material and stone implements, clay for ceramics and construction material, and trees for building materials and fuel. Water from nearby Gobernador Canyon may also have been an important resource.

The area is presently used for a variety of activities. Oil and gas extraction has been and currently is active in the area. The construction of numerous roads for energy resources development has made the area readily accessible for hunting and camping. Stock grazing is also prevalent in the area. Evidence of woodcutting activities is also present.

## CULTURAL RESOURCES

The archaeological survey of the proposed San Juan 30-6 #498 well pad and access resulted in the documentation of one isolated occurrence (IO-1). The isolate was located outside the area of effect, but within the surveyed cultural buffer. (Fig.3) Isolated Occurrence (IO-1) consisted of twelve ceramic sherds from a single Dinetah Gray jar. This isolate is interpreted to be a pot break with little possibility for subsurface cultural deposits. In fact, the ground surface upon which the I.O. was discovered is interpreted to be degraded clay bedrock.

## MANAGEMENT AND ELIGIBILITY RECOMMENDATIONS

The results of the archaeological survey of the EPNG San Juan 30-6 Unit #498 well pad and access indicate the discovery of one isolated occurrence (IO-1)(Figure 3). The isolated occurrence lacks integrity and does not meet the eligibility criteria for inclusion in the National Register of Historic Places.

The research potential of the isolate has been exhausted by the documentation provided in this report. Furthermore the isolate is located outside of the proposed area of effect and should not be disturbed by the planned action.

Consequently, archaeological clearance is recommended for the proposed EPNG San Juan 30-6 Unit #498 well pad and access.

Figure 3. Location of isolated artifact. (90-DCI-004)  
DELETED

# MERIDIAN OIL

San Juan 30-6 Unit #498  
2185'FNL, 2295'FEL Section 30, T-30-N, R-7-W  
Rio Arriba County, New Mexico

I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the subject well.

Blackwood & Nichols  
PO Box 1239  
Durango, CO 81301

  
Peggy A. Bradfield

San Juan County  
State of New Mexico

August 20, 1990

My commission expires August 17, 1992

# MERIDIAN OIL

To: Offset Owners/Operators

This is notification that Meridian Oil Inc. is seeking administrative approval for a non-standard location for the San Juan 30-6 Unit #498, located at 2185'FNL, 2295'FEL, Section 30, T-30-N, R-7-W, Rio Arriba County, New Mexico, due to topographic reasons.

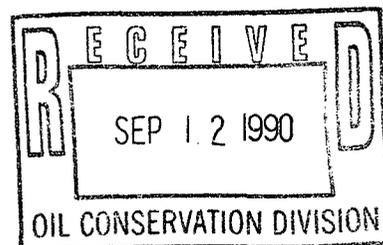
A copy of the C-102 showing the location of this well and a topographic map are enclosed.

A copy of this application is being submitted to all offset owners/operators by certified mail with a request that you furnish the New Mexico Oil Conservation Division, PO Box 2088, Santa Fe, NM 87501 with a Waiver of Objection, and return one copy to this office.

Sincerely yours,

  
Peggy Bradford

encl.



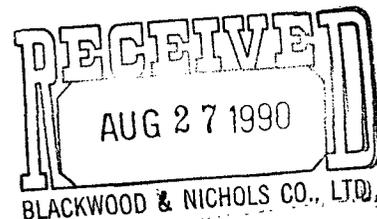
## WAIVER

Blackwood & Nichols Co., Ltd. hereby waives objection to Meridian Oil Inc.'s application for a non-standard location for their San Juan 30-6 Unit #498 as proposed above.

By: Ar Rector

Date: 8/28/90

xc: Blackwood & Nichols Co., LTD  
PO Box 1239  
Durango, CO 81301



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

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**

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

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

**DISTRICT II**  
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**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

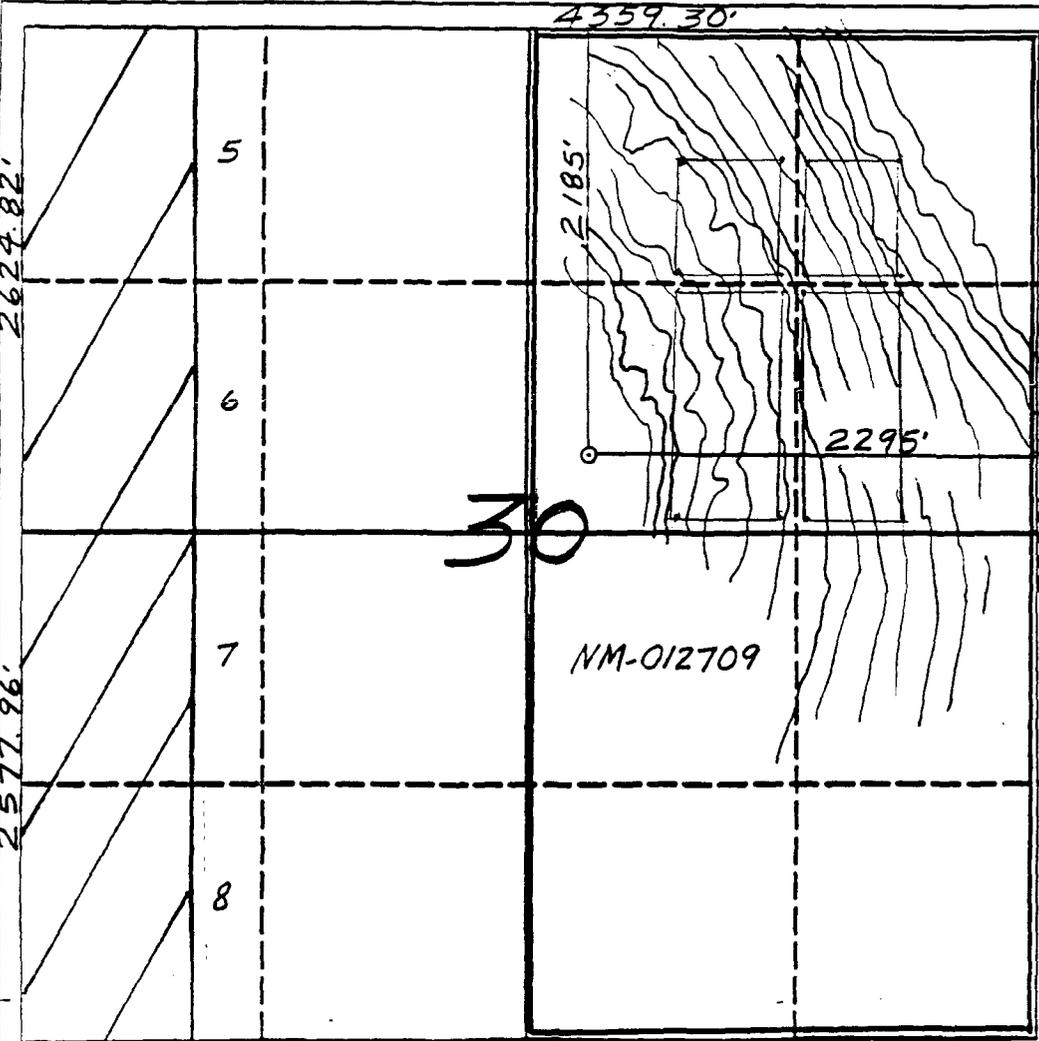
Operator El Paso Natural Gas		Lease San Juan (NM-012709) 30-0 Unit		Well No. 498
Unit Letter G	Section 30	Township 30 North	Range 7 West	County NMNM Rio Arriba
Actual Footage Location of Well: 2185 feet from the North line and 2295 feet from the East line				
Ground level Elev. 6222'	Producing Formation Fruitland Coal	Pool Basin	Dedicated Acreage: 320.00 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hectare 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 unitization

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: El Paso Natural Gas  
 Company:  
 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.

Date Surveyed: 6-1-90

Signature: Neale C. Edwards  
 Professional Surveyor  
 REGISTERED LAND SURVEYOR  
 6857  
 6857  
 Certificate No. 6857  
 Neale C. Edwards

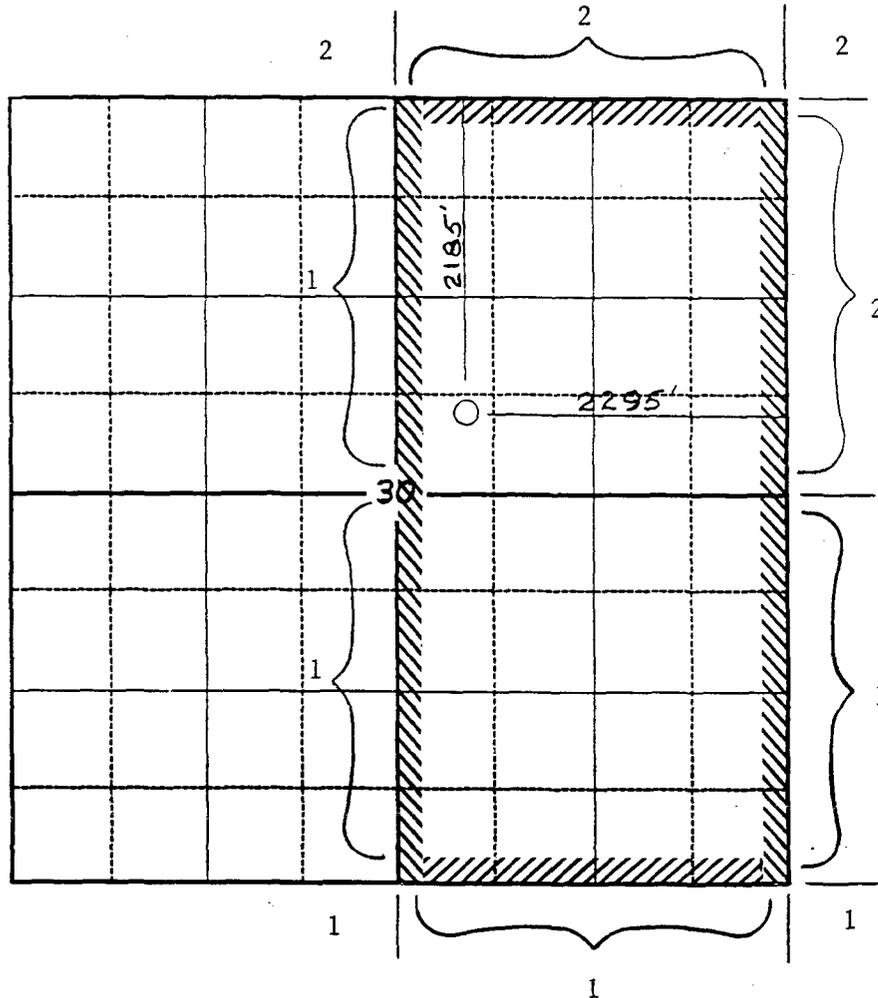
MERIDIAN OIL INC

Well Name San Juan 30-6 Unit #498

Footage 2185' FNL; 2295' FEL

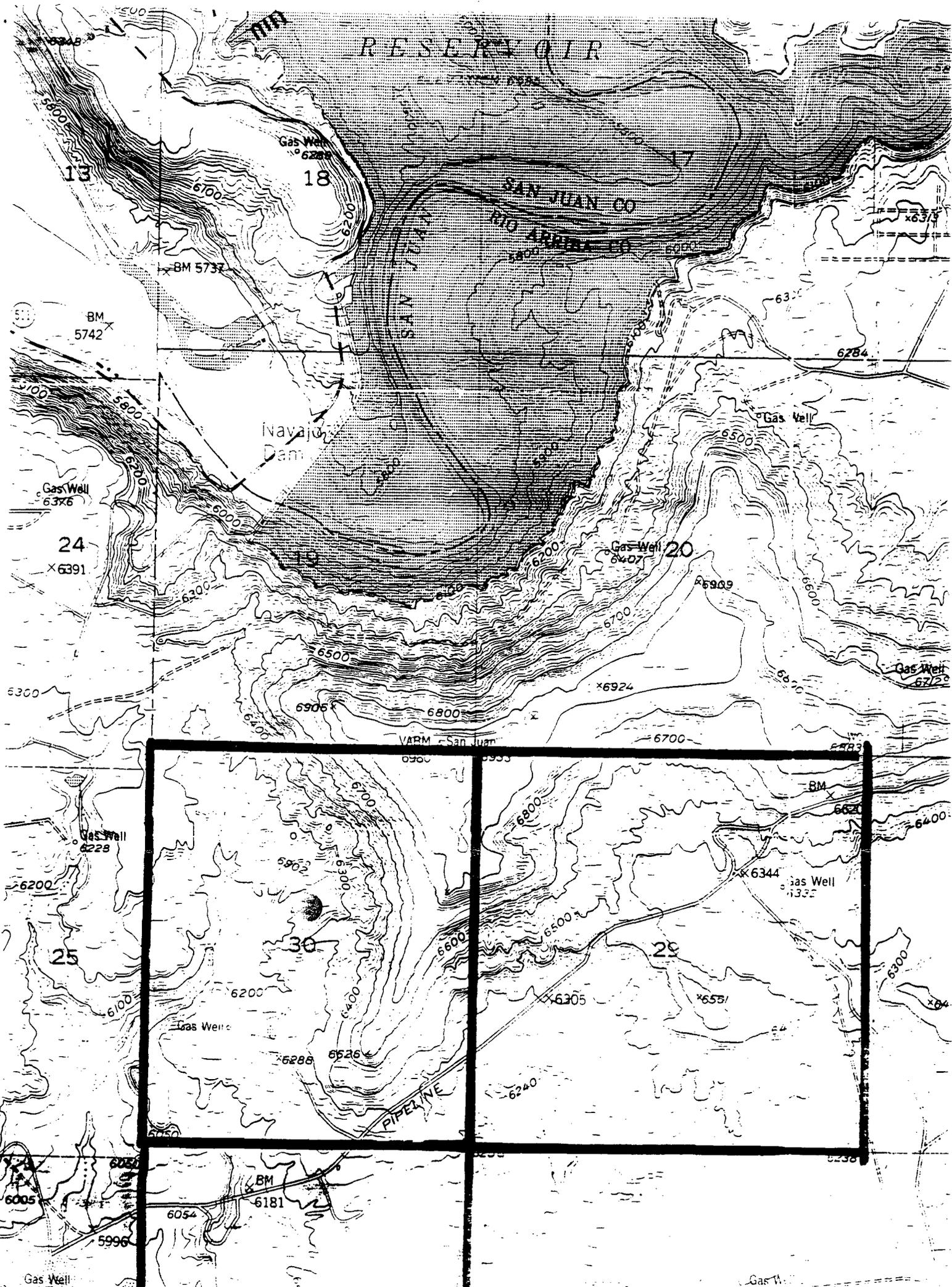
APPLICATION FOR NON-STANDARD LOCATION

County Rio Arriba State New Mexico Section 30 Township 30N Range 7W



Remarks 1) Meridian Oil Inc  
2) Blackwood & Nichols Co, LTD

# RESERVOIR



OIL CONSERVATION DIVISION  
RECEIVED

MERIDIAN OIL

'90 SEP 4 AM 9 29

To: Offset Owners/Operators

This is notification that Meridian Oil Inc. is seeking administrative approval for a non-standard location for the ~~San Juan 30-6 Unit #498~~ located at 2185' FNL, 2295' FEL, Section 30, T-30-N, R-7-W, Rio Arriba County, New Mexico, due to topographic reasons.

A copy of the C-102 showing the location of this well and a topographic map are enclosed.

A copy of this application is being submitted to all offset owners/operators by certified mail with a request that you furnish the New Mexico Oil Conservation Division, PO Box 2088, Santa Fe, NM 87501 with a Waiver of Objection, and return one copy to this office.

Sincerely yours,

  
Peggy Bradfield

encl.

WAIVER

Blackwood & Nichols Co., Ltd. hereby waives objection to Meridian Oil Inc.'s application for a non-standard location for their San Juan 30-6 Unit #498 as proposed above.

By: Ar Rector Date: 8-28-90

xc: Blackwood & Nichols Co., LTD  
PO Box 1239  
Durango, CO 81301

RECEIVED  
AUG 27 1990  
BLACKWOOD & NICHOLS CO., LTD.

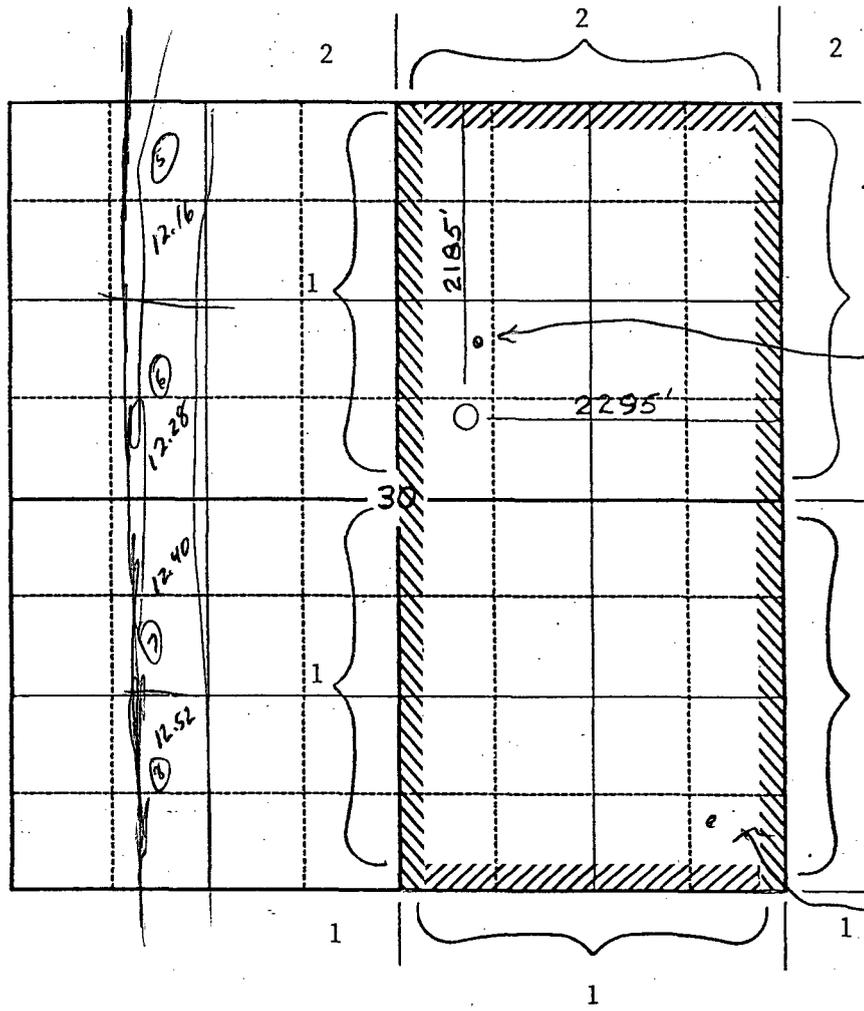
MERIDIAN OIL INC

Well Name San Juan 30-6 Unit #498

Footage 2185' FNL; 2295' FEL

APPLICATION FOR NON-STANDARD LOCATION

County Rio Arriba State New Mexico Section 30 Township 30N Range 7W



Meridian Oil Inc.  
 San Juan 30-6 Unit  
 Well No. 9  
 1560' FNL - 2200' FEL  
 Blanco Mesa Verde  
 Comp.  
 Spud: 9/19/55  
 Unorthodox Location  
 due to topo.  
 by letter dated  
 8/10/55

Meridian Oil Inc.  
 San Juan 30-6 Unit  
 Well No. 9A  
 545' FNL - 510' FEL  
 Spud: 5/28/79  
 Blanco Mesa Verde  
 Comp.  
 WSL-987

Remarks 1) Meridian Oil Inc  
2) Blackwood & Nichols Co, LTD

Exhibit A

<p>⑤ 12.16</p>			
<p>⑥ 12.28</p>	<p>Meridian Oil, Inc. San Juan 306 Unit No. 9A 2185' FSL - 2295' FEL Basin Fruitland Coal Pool Drilling - Subject well</p>	<p>Meridian Oil, Inc. San Juan 306 Unit No. 9 2185' FSL - 2200' FEL spud - 9/19/55 T.D. - 5465' Blanco Mesa Verde Producing</p>	
<p>⑦ 12.40</p>			
<p>⑧ 12.52</p>			<p>Meridian Oil, Inc. San Juan Unit No. 9A 5465' FSL - 510' FEL spud - 5/28/77 T.D. - 5787' Blanco Mesa Verde Producing 721 - 987</p>

G SECTION 30

TOWNSHIP 30N

RANGE

7W



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

RECEIVED  
 '90 OCT 5 AM 9 29

11400 IRLIAZOS ROAD  
 AZTEC, NEW MEXICO 87410  
 (505) 334-0170

ARREY CARRUTHERS  
 GOVERNOR

Date: 10-2-90

*ATTN: M. Stagner*

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

- Re: Proposed MC \_\_\_\_\_
- Proposed DHC \_\_\_\_\_
- Proposed NSL X \_\_\_\_\_
- Proposed SWD 0 \_\_\_\_\_
- Proposed WFX \_\_\_\_\_
- Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 9-12-90  
 for the Mexican Oil Lease S.J. 30-6 (Unit #498  
 Operator Lease & Well No.

G-30-30W-7W and my recommendations are as follows:  
 Unit, S-T-R

*Approved*

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Yours truly,

*Eric Beach*