

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR 2000 POST OAK, SUITE 100

Apache Corporation Houston, TX 77056

3. ADDRESS AND TELEPHONE NO.

c/o J. O. Easley, Inc., P. O. Box 245, Artesia, NM 88211 (505) 746-1070

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At Surface 1124' FNL & 2541' FEL, Unit B

At proposed prod. Zone 1124' FNL & 2541' FEL, Unit B

~~WYORTHODOX LOCATION~~

**SUBJECT TO
LIKE APPROVAL
BY STATE**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

± 5.0 miles north of Eunice, NM

15. DISTANCE FROM PROPOSED *

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT. 1124'

(Also to nearest drlg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION *

TO NEAREST WELL, DRILLING, COMPLETED 440.6'

OR APPLIED FOR, ON THIS LEASE, FT.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3452'

CAPITAN CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START *

ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2 "	13 3/8 " H-40 ST&C	48#	40'	Ready-Mix Circulate to surf.
12 1/4 "	8 5/8 K-55 ST&C	24#	1365'	400 sxs PBCZ circulate to surf.
7 7/8 "	5 1/2 " K-55 LT&C	17#	6880'	520 sxs Hal. Lit. + 320 sxs 50/50 Pozmix circulate to surf.

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land.

Duration of Program: Drilling - Sixteen (16) days

Completion - Twenty (20) days

See attached for complete Drilling Program

EXHIBITS

Exhibit "A": Drilling Program

Exhibit "B": H2S Plan

Exhibit "C": Surface Use

Exhibit "D": Land Survey Plat

Exhibit "E": Vicinity Plat

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS**

Exhibit "F": Existing Well Plat

Exhibit "G": Rig Layout

Exhibit "H": BOP Layout

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Michael R. Burch, CPL

TITLE

Agent for Apache Corporation

DATE 7-10-98

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

(JORG. SGD.) ARMANDO A. LOPEZ

Acting Assistant Field Office Manager,
Lands and Minerals

APPROVED BY

TITLE

DATE

SEP 17 1998

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED
JUL 16 1998
BLM
ROSSELL, NM

EXHIBIT "A"

DRILLING PROGRAM

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable law, regulations (43 CFR 3160), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representatives to insure compliance.

I. The geological surface formation is recent Permian with quaternary alluvium and other surficial deposits.

II. Estimated Tops of Geological Markers:

<u>FORMATION</u>	<u>DEPTH</u>	<u>SUBSEA</u>
Quaternary alluvials	Surface	
Rustler	1365'	2111'
Yates	2775'	701'
Seven Rivers	3025'	451'
San Andres	4200'	-724'
Glorieta	5468'	-1992'
Paddock	5550'	-2074'
Blinebry	5600'	-2124'
Tubb	6130'	-2654'
Drinkard	6470'	-2994'
TD	6880'	-3324'

III. Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

<u>SUBSTANCE</u>	<u>DEPTH</u>
Expected Oil Zones:	Blinebry 5600'
	Tubb 6130'
	Drinkard 6470'
Expected Gas Zones:	None anticipated
Expected Water Zones:	None anticipated

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows within zones of correlative rights will be tested to determine commercial potential.

IV. A. Proposed Casing Program:

<u>HOLE SIZE</u>	<u>CASING SIZE</u>	<u>GRADE</u>	<u>WEIGHT PER FOOT</u>	<u>DEPTH</u>
17 ½"	13 3/8 "	H-40 ST&C	48#	40'
12 ¼ "	8 5/8 "	K-55 ST&C	24#	1365'
7 7/8"	5 ½"	K-55 LT&C	17#	6880'

B. Proposed Cement Program:

8 5/8" Cmt w/ 300 sx Class "C" cmt w/2% CaCl. Circulate to surface.

5 1/2" Cmt w/ 700 sx Halliburton Lite w/1/4# Flocele, 325 sx Premium Plus w/.5% Halad-9, & 325 sx Premium Plus w/.5% Halad-344 w/3% KCl.

The top of cement is designed to reach 100' above 8 5/8" casing shoe.

V. Proposed Mud Program:

The well will be drilled to total depth using brine & fresh water. Depths of systems are as follows:

<u>INTERVAL</u>	<u>MUD TYPE</u>	<u>MUD WT.</u>	<u>VISCOSITY</u>
0-400'	Fresh Water	8.8 ppg	30
400'-TD	Brine Water	9.5-10.5 ppg	28

VI. Proposed Control Equipment:

Will install on the 8 5/8" surface casing a 10" Series 900 Type "E" Shaffer Double Hydraulic BOP and will test before drilling in the Queen formation. BOP working pressure: 3000 psi. See Exhibit "H" for BOP layout.

VII. Auxiliary Equipment:

Blowout preventor, gas detector, kelly cock, pit level monitor, flow sensors, and stabbing valve.

VIII A. Testing Program:

Drill Stem Tests: None planned

B. Logging Program:

<u>LOG</u>	<u>Interval</u>
GR-DLL-MSFL-Cal	T.D. - 2,300'
GR-CNL-CDL-Cal	T.D. - Surface

C. Coring Program:

None planned

IX No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, the proposed mud program will be modified to increase the mud weight. The estimated maximum bottom hole pressure is 1980 psi.

EXHIBIT "B"

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S Safety Equipment and Systems

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating, the first zone containing, or reasonably expected to contain, H₂S.

1. Well Control Equipment:
 - A. Flare line with electronic igniter or continuous pilot.
 - B. Choke manifold with a minimum of one remote choke.
 - C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - D. Auxiliary equipment to include annular preventer, mud-gas separator, rotating head, and flare gun with flares.
2. Protective equipment for essential personnel:
 - A. Mark II Surviveair 30-minute units located in the dog house and at briefing areas, as indicated on Exhibit "G".
3. H₂S detection and monitoring equipment:
 - A. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.
 - B. One portable S02 monitor positioned near flare line.
4. Visual warning systems:
 - A. Wind direction indicators as shown on Exhibit "G".
 - B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate.
5. Mud program:
 - A. The mud program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers will minimize hazards when penetrating H₂S-bearing zones.
 - B. A mud-gas separator and an H₂S gas buster will be utilized.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land Line (telephone) communications at field office.

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours, and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.

EXHIBIT "C"
SURFACE USE AND OPERATIONS PLAN
CULTURAL RESOURCES SURVEY
APPROXIMATE REHABILITATION SCHEDULE

LOCALITY: NORTH EAST DRINKARD UNIT # 412
LOCATION: NW¼NE¼ OF SECTION 10, T21S-R37E, N.M.P.M.
LEA COUNTY, NEW MEXICO

OPERATOR: APACHE CORPORATION

SUBMITTED TO:

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

ROSWELL AREA OFFICE

2909 W 2nd STREET

ROSWELL, NEW MEXICO 88201

TELEPHONE (505) 627-0272

This plan is submitted to provide permitting agencies with information necessary to allow an appraisal of the environmental effects associated with the proposed drilling operations. Within the context of typical drilling operations, this plan provides for protection of surface resources and other environmental components. This plan has been developed in conformity with the United States Geological Survey NTL-6 guidelines, Bureau of Land Management Oil and Gas Order No. 1, and in connection and consultation with the private surface owner of record, if other than the United States of America, as well as the Carlsbad Area Resource Office for the Bureau of Land Management and the United States Department of the Interior personnel.

PART #1:

1) Surface Location:

NW/4NE/4 of Section 10, Township 21 South, Range 37 East, N.M.P.M.
Lea County, New Mexico
1124' FNL and 2541' FEL, Unit B
See attached Exhibit "C"

2) Bottom Hole Location:

NW/4NE/4 of Section 10, Township 21 South, Range 37 East, N.M.P.M.
Lea County, New Mexico
1124' FNL and 2541' FEL, Unit B
See attached Exhibit "C"

3) Leases Issued:

a) NM-2512

4) Record Lessee:

a) Conoco, Inc. 25% Amoco Production Co. 25% Atlantic Richfield Co. 25%
Chevron U.S.A. 25%

5) Acres in Lease:

- a) Section 3 : Lots 1, 2, 3, 4, 7, 8, 12, 15, 16, N/2SE/4, SE/4SE/4
Section 10: E/2NW/4, NW/4NE/4, S/2NE/4 Total Acres: 708.67

6) Acres Dedicated to Well:

There are 40.00 acres dedicated to this well within the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 10, Township 21 South, Range 37 East, Lea County, New Mexico.

PART #2:

1) Existing Roads:

Exhibit "E" is a map showing the location of the proposed well, as staked, in relation to existing roads and State Highway 18. The well is \pm 5.0 miles north of Eunice, New Mexico. From Eunice, New Mexico, go north approximately 5.0 miles on State 18. Turn east on lease road and go approximately 1/4 mile to location.

2) Planned Access:

- A. Length and Width: Will be constructed from the existing lease/access road around the well site. Extra width may be needed in the turns.

Application for a buried pipeline will be made if it becomes necessary.

- B. Construction: Any new road will be 20' wide with a center crown, with 6 inches compacted caliche. The existing roads will be lightly graded and topped with compacted caliche as needed.

- C. Turnouts: None required.

- D. Culverts: None required.

- E. Cuts and Fills: As needed.

- F. Gates and Cattleguards: None required.

3) Location of Existing Wells:

Existing wells within a one-mile radius of the proposed well are shown on Exhibit "F".

4) Location of Existing and/or Proposed Facilities:

- A. There are production facilities within the area of the NE Drinkard Unit. See Exhibit "F".
- B. If the oil well proves to be commercial, any necessary production facilities will be installed on the drilling pad, and flow lines will be installed along the proposed and existing roads to the production facilities and storage tanks.

5) Location and Type of Water Supply:

The Apache Corporation plans to drill the proposed well with fresh and brine water which will be obtained from commercial sources. The water will be transported over proposed and existing access roads.

6) Source of Construction Materials:

Caliche for surfacing access roads and the wellsite pad will be obtained from the location itself or from BLM pits in the area.

7) Method of Handling Waste Material:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system.
- E. Oil produced during operation will be stored in tanks until sold.
- F. The Apache Corporation will comply with current laws and regulations pertaining to the disposal of human waste.

- G. All waste materials will be contained to prevent scattering by the wind and will be removed from the well site within 30 days after drilling and/or completion operations are finished.

8) Ancillary Facilities: None required.

9) Well Site Layout:

- A. Exhibit "G" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area have been staked and flagged.
- B. Mat Size: 125' X 235' including reserve pits.
- C. Cut & Fill: Only minor leveling of the drilling site is anticipated.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10) Plans for Restoration of the Surface:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, Apache Corporation will comply with all rehabilitation and/or vegetation requirements of the Bureau of Land Management, and such rehabilitation will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11) Other Information:

- A. Topography: The wellsite and access road are located in the Querecho Plains. The site is relatively flat.

B. Soil:

The proposed location, access road, and production facilities consist of sandy soil. Slope in the proposed area ranges from zero (0) to five (5) degrees.

C. Flora and Fauna:

Vegetation is one of a grassland environment and a scrub-grass, scrub disclimax community. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail, and other wildlife typical of the semi-arid desert land.

D. Ponds and Streams: There are no ponds, lakes, streams, or feeder creeks in the immediate area.

E. Residences and Other Structures:

There are no occupied residences or other structures on or near the proposed location.

F. Land Use: The land is used for grazing cattle.

G. Surface Ownership: The surface is owned by: Will Terry Trust, P.O. Box 686, Hobbs, New Mexico. **Surface damage agreement has been reached for this tract.**

H. Archaeological, Historical, and Other Cultural Sites:

Desert West Archaeological Services has conducted an archaeological survey of the proposed NE Drinkard Unit #412 well which covers the drilling location, production facilities, and access road, including a corridor along said access road for power and flow lines. Their report will be filed with the BLM under separate cover.

I. Operator's Senior Representative:

David M. Talbott, Western Region Drilling Manager
Apache Corporation
2000 Post Oak Blvd., Suite 100
Houston, Texas 77056
(713) 296-7121
FAX (713) 296-7207

J. Person in Charge of Overall Project:

David M. Talbott, Western Region Drilling Manager
Apache Corporation
2000 Post Oak Blvd., Suite 100
Houston, Texas 77056
(713) 296-7121
FAX (713) 296-7207

K. Person in Charge of Drilling Operations:

David M. Talbott, Western Region Drilling Manager
Apache Corporation
2000 Post Oak Blvd., Suite 100
Houston, Texas 77056
(713) 296-7121
FAX (713) 296-7207

CERTIFICATION

I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Apache Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



Michael R. Burch, CPL, Agent for Apache Corporation
J. O. Easley, Inc.
P. O. Box 245
Artesia, New Mexico 88211
(505) 746-1070 FAX (505) 746-1073

Date: 7-10-98

EXHIBIT "D"

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994
Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-34490	Pool Code 22900	Pool Name Eunice; Blinbry-Tubb-Drinkard North
Property Code 22503	Property Name NORTHEAST DRINKARD UNIT	Well Number 412
OGRID No. 873	Operator Name APACHE CORPORATION	Elevation 3452

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	21 S	37 E		1124	NORTH	2541	EAST	LEA

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
Dedicated Acres 40	Joint or Infill	Consolidation Code	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

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature <u>Michael R. Burch</u> Printed Name <u>Michael R. Burch, CPL</u> Title <u>Agent for Apache Corp.</u> Date <u>7-10-98</u>
	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. Date Surveyed <u>MAY 27, 1998</u> Signature & Seal <u>[Signature]</u> Professional Surveyor Date <u>5-28-98</u> W.D. Num. <u>98-1158788</u>
	Date Surveyed <u>JLP</u> Signature & Seal <u>[Signature]</u> Professional Surveyor Date <u>5-28-98</u> W.D. Num. <u>98-1158788</u>
	Certificate No. <u>RONALD G. EDSON, 3239</u> <u>CAROL EDSON, 12641</u> <u>JACOB McDONALD, 12185</u>

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. Box 2086, Santa Fe, NM 87504-2086

State of New Mexico

Energy, Minerals and Natural Resources Department

EX. BIT "D"

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-34490	Pool Code 22900	Pool Name
Property No. 30-025-	22900	Property Name Eunice; Blinbry-Tubb-Drinkard North
OGRID No. 22903	NORTHEAST DRINKARD UNIT	
Operator Name APACHE CORPORATION		Well Number 412
		Elevation 3452

873

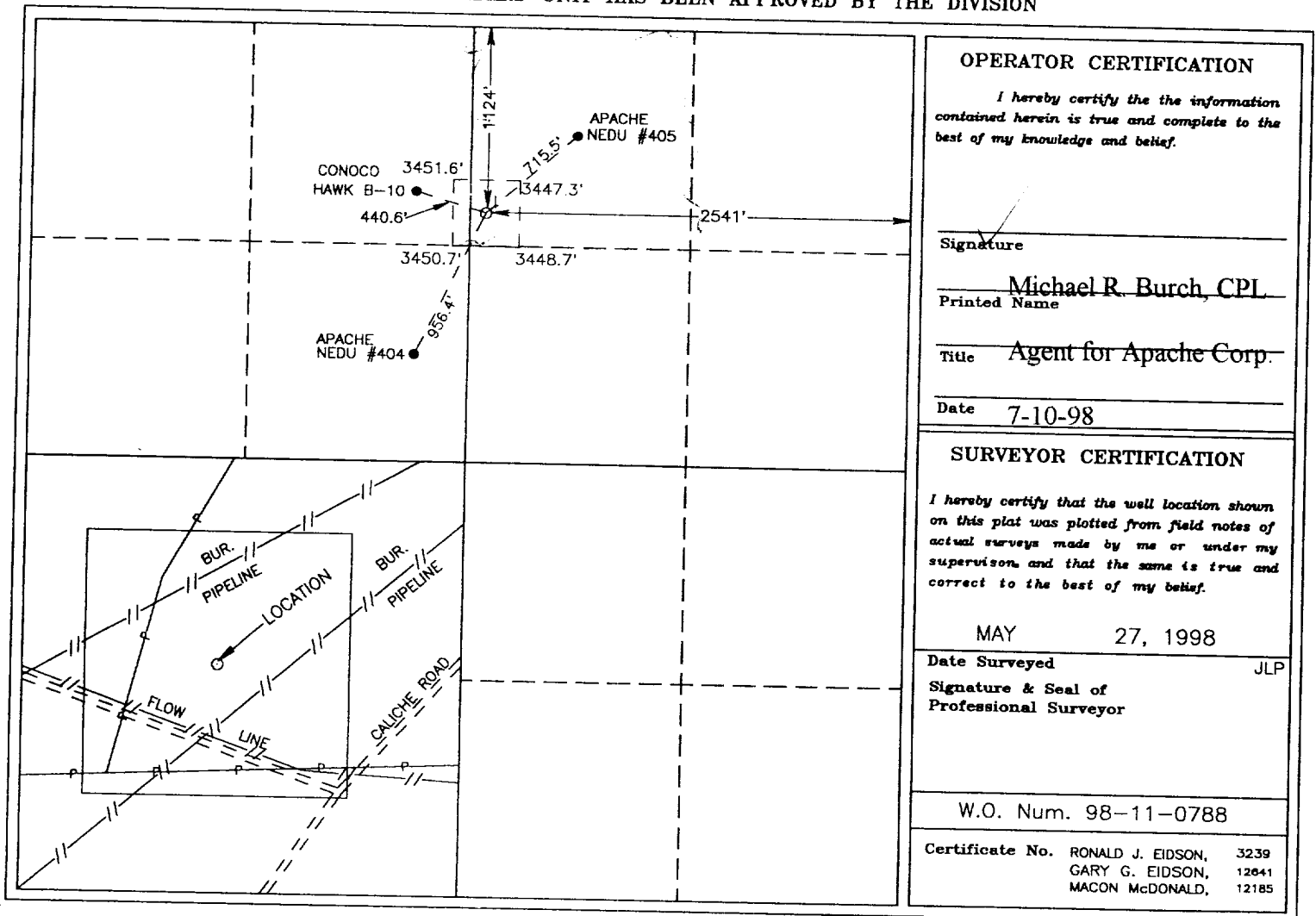
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	21 S	37 E		1124	NORTH	2541	EAST	LEA

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
Dedicated Acres		Joint or Infill	Consolidation Code	Order No.					
40									

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



(505) 393-3117

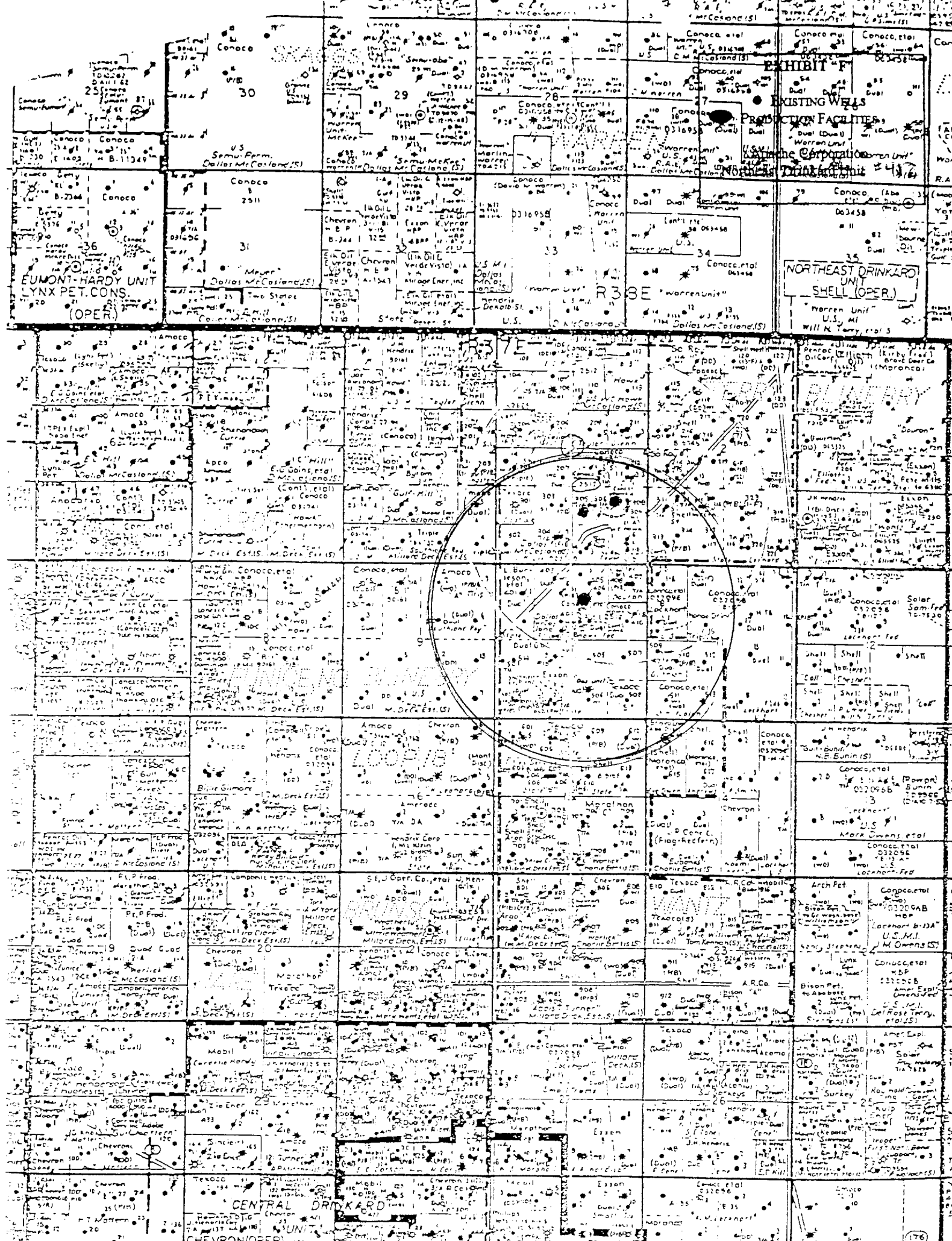


EXHIBIT F

EXISTING WELLS

PRODUCTION FACILITIES

Warren Unit

Warren Unit

Warren Unit

Warren Unit

Warren Unit

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Warren Unit

Warren Unit

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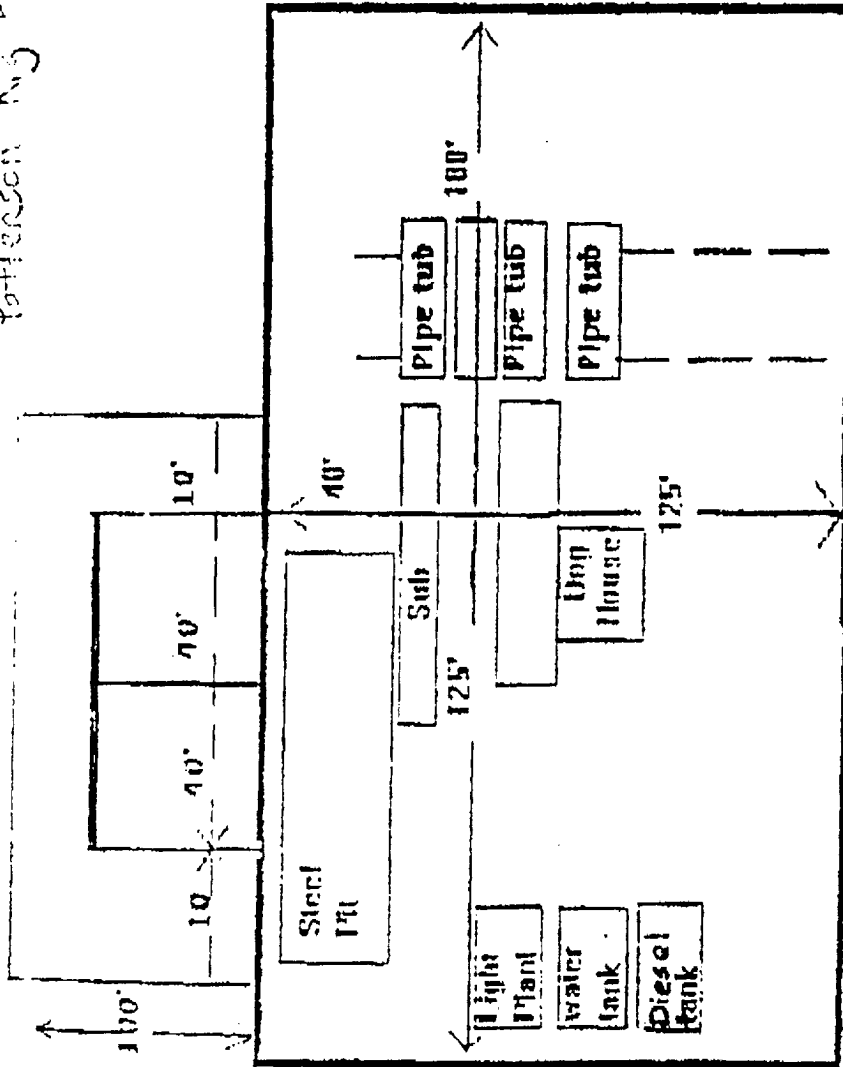
Warren Unit

EXHIBIT "G"

RIG LAYOUT

Apache Corporation
Northeast Drinkard Unit #412

Patterson Rig #465



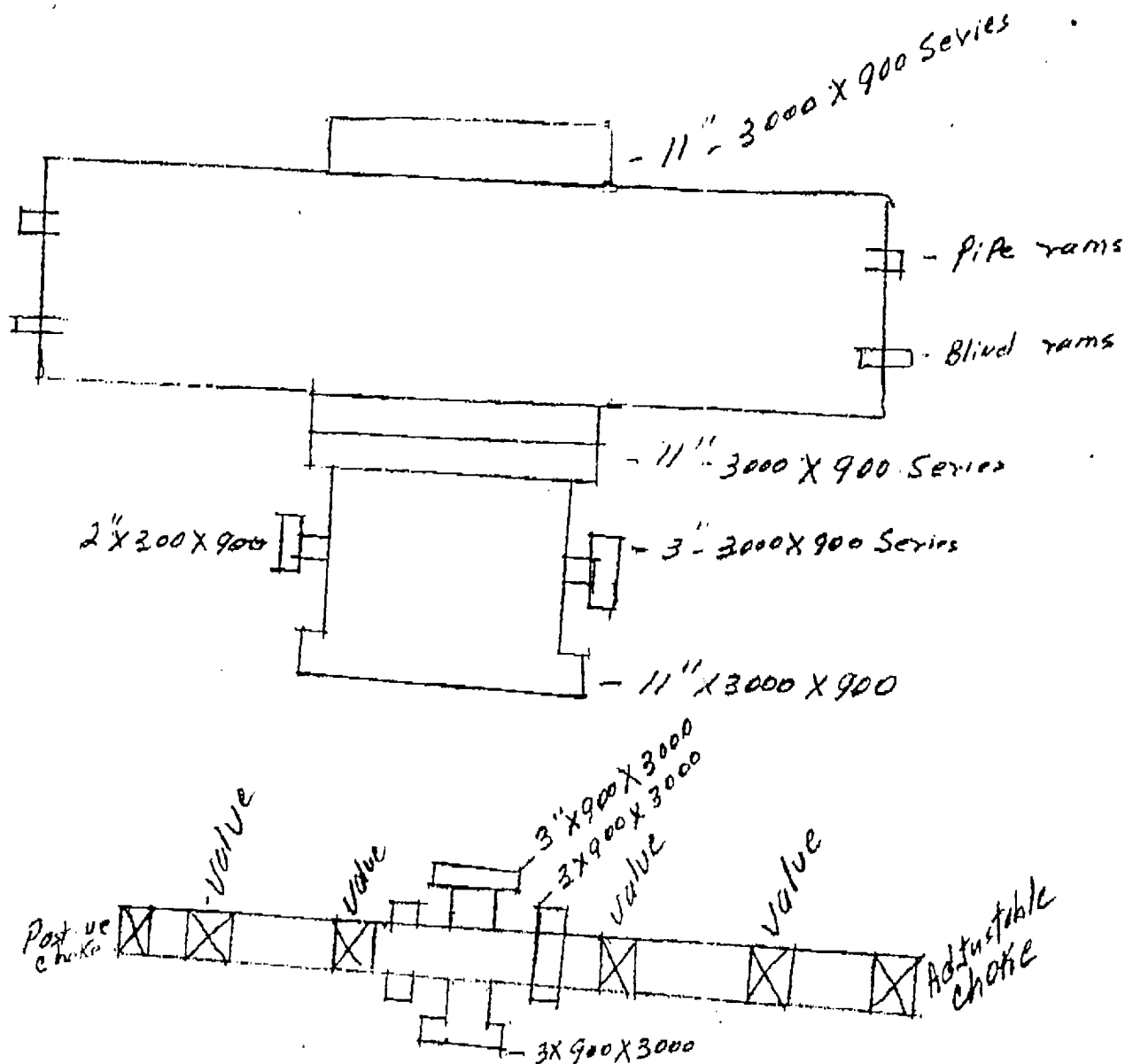


PATTERSON DRILLING COMPANY

EXHIBIT "H"

BOP LAYOUT

Apache Corporation
Northeast Drinkard Unit
#412



All flanges &
Valves - 2" 3000-900 Series
Mud Cows - 3" 3000 X 900 Series

8b/41/21

