Form 3160-3
(November 1983)
(formerly 9-331C)

NM OIL CONS OMMISSION
DRAWER DD
ARTESIA, NM 88210
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

30-015-27793
Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM 031963

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Dune South 11 Federal

2. NAME OF OPERATOR: Enron Oil & Gas Company — DEC 1993 — 30-015-27793

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: P. O. Box 2267, Midland, Texas 79702

10. FIELD AND POOL, OR WILDCAT: Und. Delaware

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 1980' FWL
At proposed prod. zone: 1980' FSL & 1980' FWL — UT. K

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 11, T24S, R31E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 33 miles west of Jal NM

12. COUNTY OR PARISH: Eddy — 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 660 / 660

16. NO. OF ACRES IN LEASE: 160

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: None

19. PROPOSED DEPTH: 8450

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3528.3' GR

22. APPROX. DATE WORK WILL START*: 12/12/93

23. PROPOSED CASING AND CEMENTING PROGRAM — Secretary's Potash

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4	11-3/4	42#	600	275 SX CIRCULATED
11	8-5/8	32#	4420	725 SX CIRCULATED
7-5/8	5-1/2	17#	8450	350 SX Est TOC 3500'

Exp Ltr 1-30-96

RECEIVED
AUG 24 11 12 AM '93
CARLSBAD, NEW MEXICO

Acreage is dedicated.

ID-1
12-31-93
NSL-API

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 Betty Gildon — TITLE Regulatory Analyst — DATE 8/18/93

(This space for Federal or State office use)

PERMIT NO. — APPROVAL DATE

APPROVED BY /s/ Jesse P Richards — TITLE Acting State Director — DATE 12-9-93

CONDITIONS OF APPROVAL, IF ANY: THIS APPROVAL DOES NOT WARRANT OR CERTIFY THAT THE APPLICANT HOLDS LEGAL OR EQUITABLE TITLE TO THOSE RIGHTS IN THE SUBJECT LEASE WHICH WOULD ENTITLE THE APPLICANT TO CONDUCT OPERATIONS THEREON

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

*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.

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

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

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
ENRON OIL AND GAS Company	DUNE SOUTH "11" FEDERAL	1

Unit Letter	Section	Township	Range	County
K	11	24 SOUTH	31 EAST NMPM	EDDY

Actual Footage Location of Well:
1980 feet from the SOUTH line and 1980 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3528.3	Delaware	Undesignated	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

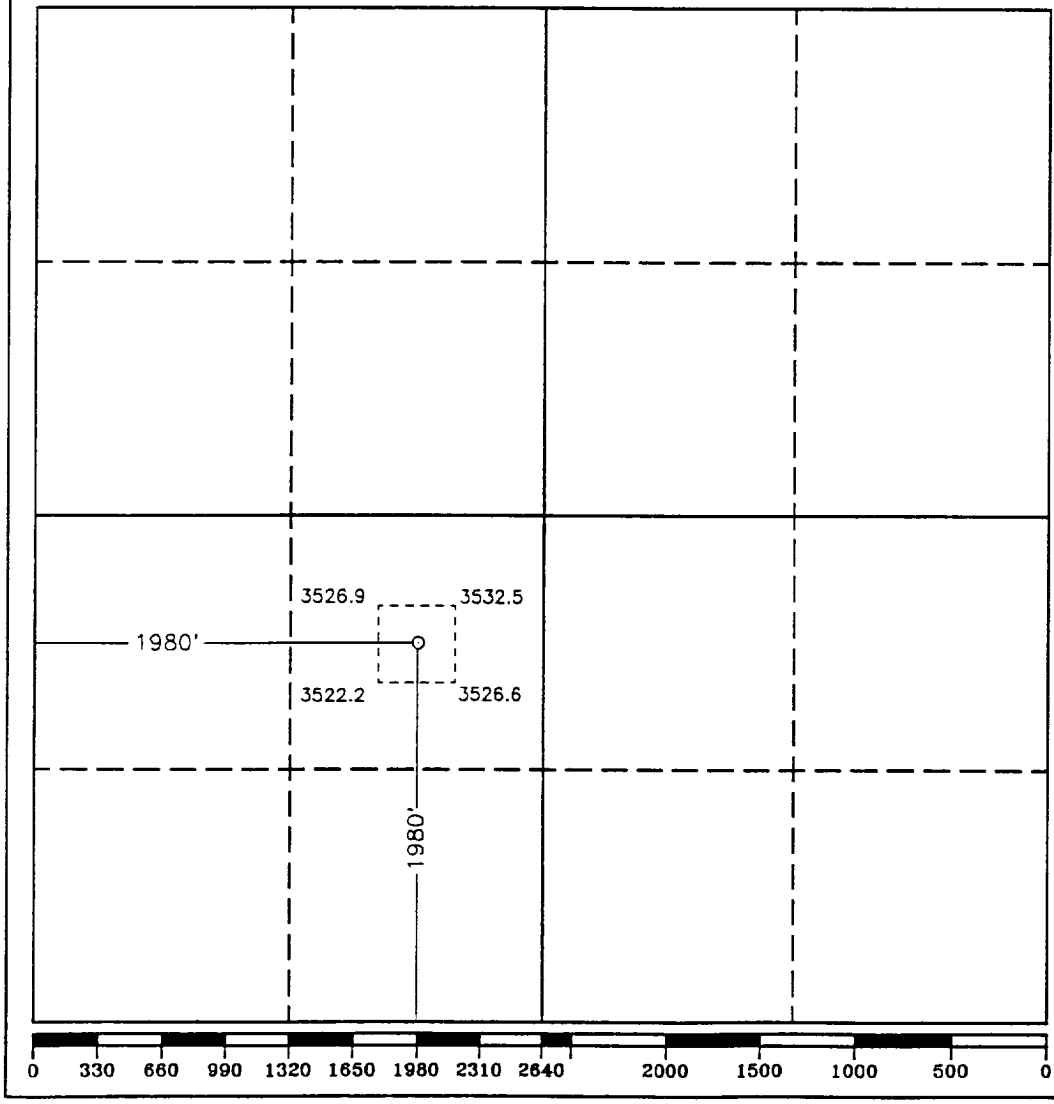
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. _____

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, 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: Betty Gildon

Printed Name: Betty Gildon

Position: Regulatory Analyst

Company: Enron Oil & Gas Company

Date: 8/16/93

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: MAY 3, 1993

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. JONES 7977

93-11-0802

DRILLING PROGRAM

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

1. Geologic Name of Surface Formation:

   Permian

2. Estmated Tops of Important Geologic Markers:

Rustler	880'
Base Salt	4260'
Top Delaware	4420'
Top Delaware Sands	4475'
Bone Spring	8260'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands	Above 200'	Fresh Water
Delaware	4475'	Oil
Bone Spring	8260'	Oil and Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 11-3/4" casing at 600' and circulating cement back to surface, and 8-5/8" casing will be set at 4420' with cement circulating back to surface.

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

4. Casing Program:

Hole Size	Interval	OD csg	Weight Grade Jt. Cond. Type
14-3/4	0- 600'	11-3/4	42# H-40 A ST&C
11	0- 4420'	8-5/8	32# J-55 LT&C
7-5/8	0- 8450'	5-1/2	17# J-55 LT&C

Cementing Program:

11-3/4" Surface casing: Cement to surface with 275 sx of Class C + 2% CaCl2 + 1/4#/sx flocele.

8-5/8" Intermediate: Cement to surface with 425 sx of Premium Plus lite + 15#/sx salt + 1/4#/sx Flocele and 300 sx Cl C + 2% CaCl2

5-1/2" Prod casing: Cement with 350 sx 50/50 Cl H/Poz + 0.8% Halad 9 + 1/4#/sx Flocele. This cement slurry is designed to bring TOC to 3500'.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 psi WP) preventer and an annular preventer (3000 psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All will be installed on the 11-3/4" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the annular to 70% of rated working pressure (2100 psi).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 4" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety 2valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

ENRON OIL & GAS COMPANY
Dune South "11" Federal No. 1

ATTACHMENT

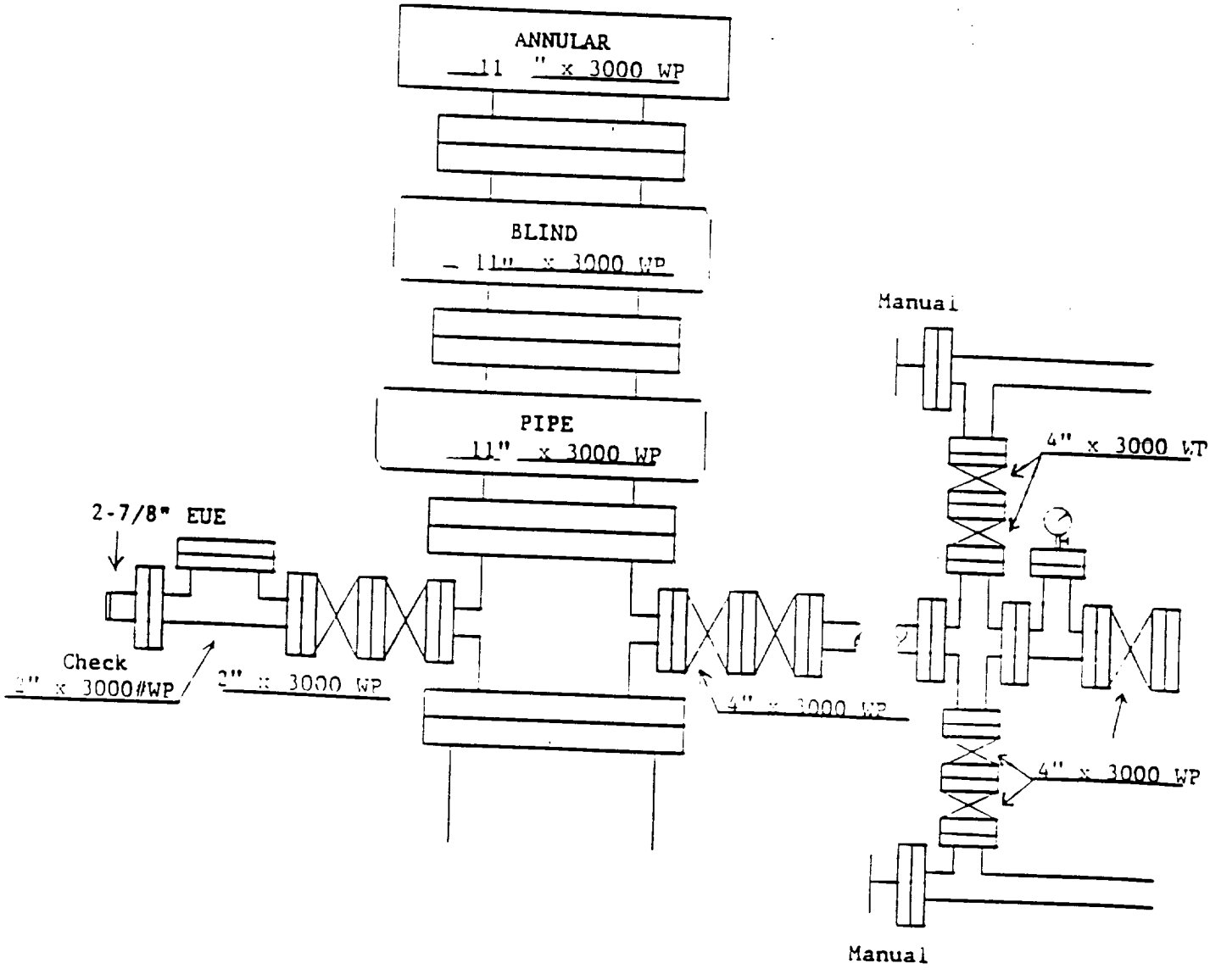


EXHIBIT "1"

Attachment to Exhibit #1
ENRON OIL & GAS COMPANY
Dune South "11" Federal No. 1

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.

2. Wear ring to be properly installed in head.

3. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum.

4. All fittings to be flanged.

5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.

6. All choke and fill lines to be securely anchored, especially ends of choke lines.

7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

8. Kelly cock on kelly.

9. Extension wrenches and hand wheels to be properly installed.

10. Blow out preventer control to be located as close to driller's position as feasible.

11. Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCl mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0-600'	Fresh water (spud)	8.5	40-45	N.C.
600'-4420'	Brine water	10.0	30	N.C.
4420'-TD	Cut Brine & polymer/KCL	8.8-9.2	28	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 2000' to TD.

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

8. Logging, Testing and Coring Program:

(A) The electric logging program will consist of GR-Dual Induction and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron ran from intermediate casing to surface.

(B) Possible side wall cores based on shows.

9. Abnormal Conditions, Pressures, Temperaturs, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 135 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3100 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. Anticipated spud date is unknown at the present time. Once drilling has commenced, the drilling operation should be finished in approximately 45 days. If the well is productive, an additional 30 to 45 days will be required for completion and testing before a decision is made to install permanent facilities.

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

SURFACE USE AND OPERATIONS PLAN

1. Existing Roads:

Access to location will be made as shown on attached Topographic map.

Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

Exhibit #2 shows the 1100 feet of new access road to be constructed. Proposed road will measure 50' in width. Surface material will consist of six (6) inches of caliche, water compacted and graded with a minimum grade of 3 percent. Drainage will have a drop of 6 inches from the center line on each side.

No turnouts are planned.

No culverts, cattleguards, gates, low-water crossings, or fence cuts are necessary.

Surfacing material will consist of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

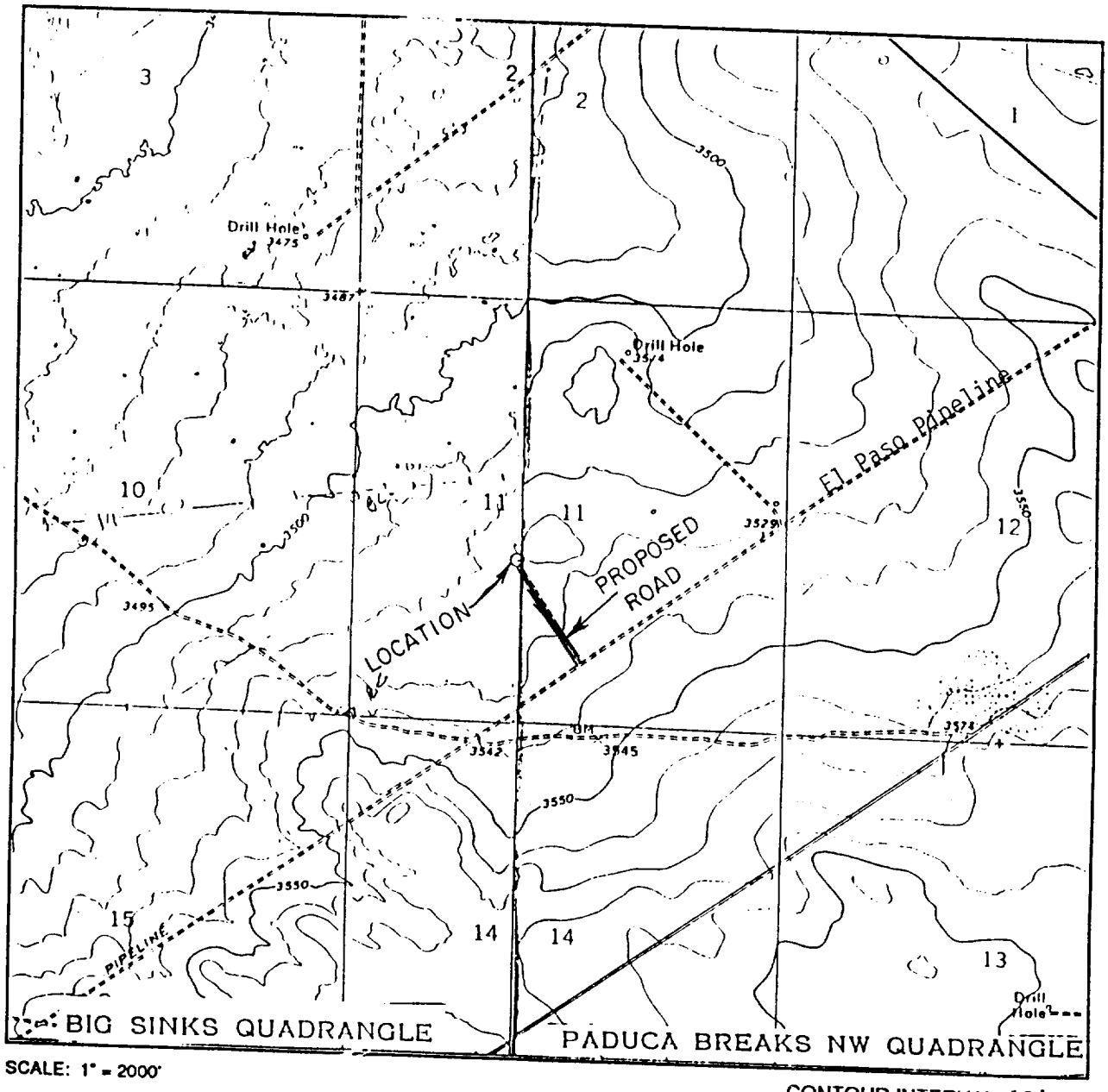
3. Location of Existing Wells:

Exhibit #3 shows all existing wells within a one-mile radius of this well.

4. Location of Existing and/or Proposed Facilities:

There are no existing production facilities. If production is encountered a temporary facility will be established on the drill pad, and if warranted a production facility would be built at a later date in the immediate area of the drill-pad location. If the well is productive, the flowline would also be located on the drill-pad site and no additional disturbance will occur.

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL 10'

SEC. 11 TWP. 24-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY Eddy STATE N.M.

DESCRIPTION 1980' FSL & 1980' FWL

ELEVATION 3528.3

OPERATOR Enron oil and Gas Company

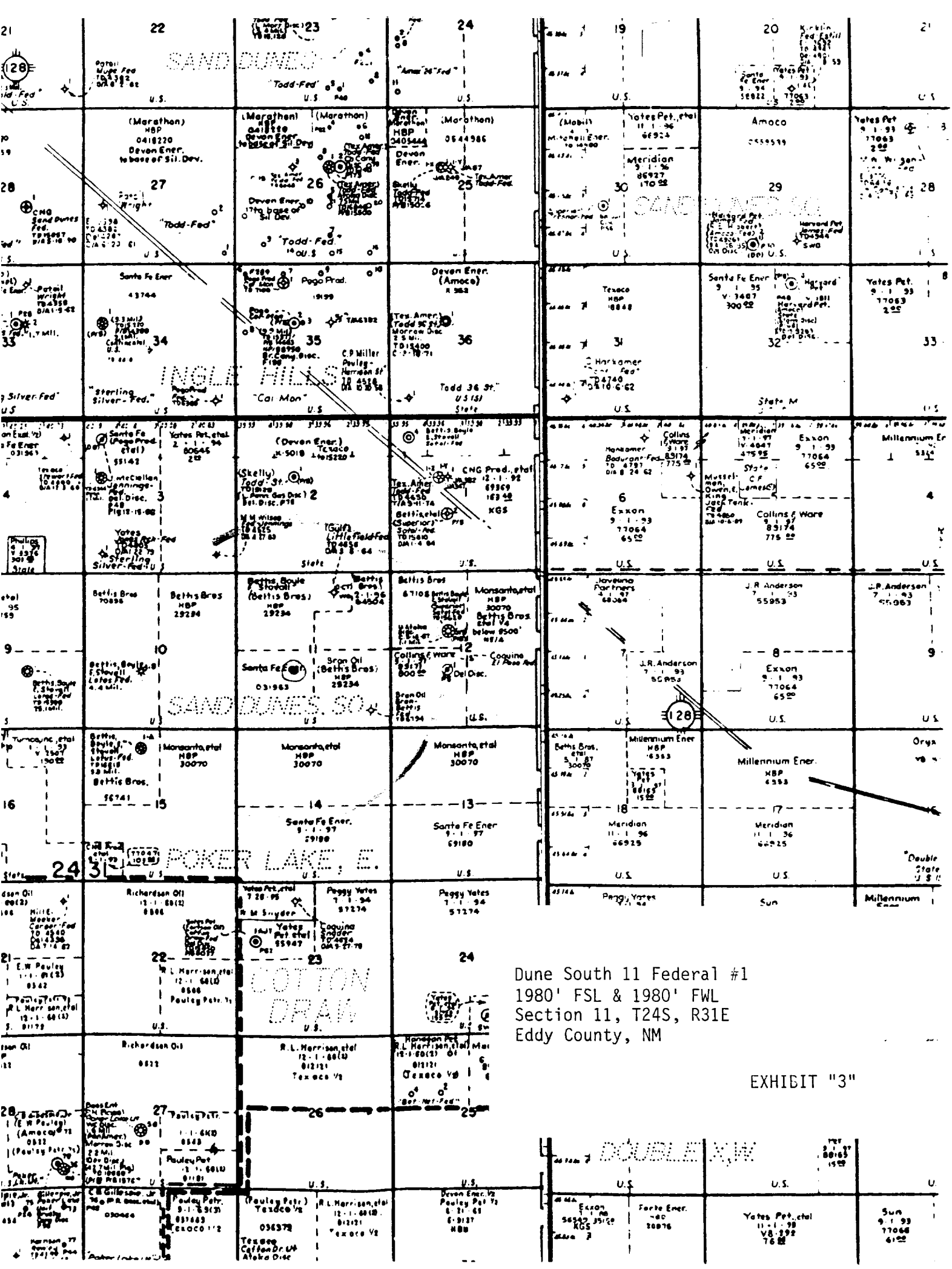
LEASE Dune South "11" Federal #1

U.S.G.S. TOPOGRAPHIC MAP

Big Sinks & Paduca Breaks NW, New Mexico

Go west of Jal 32-7/10 miles, Hwy 128
Turn South on El Paso PL Road 1-6/10 miles
Turn west 1100' to location

EXHIBIT "2"


SAND DUNES
INGLE HILLS
SAND DUNES, SO.
POKER LAKE, E.
COTTON DRAW
DOUBLE MW
Dune South 11 Federal #1
1980' FSL & 1980' FWL
Section 11, T24S, R31E
Eddy County, NM
EXHIBIT "3"

Attachment to Exhibit # 3

STATUS OF WELLS WITHIN ONE-MILE RADIUS

DUNE SOUTH "11" FEDERAL #1
1980" FSL & 1980" FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

Section 3, T24S, R31E:

D & A :

Max M. Wilson	#1-Federal-Jennings	660"FSL & 660"FELL

Section 11, T24S, R31E

WDW :

Bettis-Boyle-Stovall	WD #1-Littlefield Fed.	660"FNL& 1980"FEL
Bran Oil Company	#1-Bran-Bettis Fed.	660"FSL & 660" FEL

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

5. LOCATION AND TYPE OF WATER SUPPLY:

Water for drilling will be purchased from commercial sources and transported to the well site over the roads as shown on Exhibit #2.

6. PLANS FOR RESTORATION OF THE SURFACE:

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current Federal laws and regulations. Location will be cleaned, and the well pad removed to promote vegetation. Reseeding will be as per BLM specifications.

7. METHODS OF HANDLING WASTE DISPOSAL:

A small reserve pit will be utilized. Reserve pit will be evacuated of drilling fluid within 10 days after the well is completed.

Drill cuttings will be encapsulated in plastic and buried 2' below ground level.

Water produced during tests and waste water will be saved and hauled to a disposal well. Oil produced during tests will be in test tanks until sold.

Current laws and regulations pertaining to the disposal of human waste will be complied with.
Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

No airstrip, campsite, or other facilities will be built.

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

9. WELL SITE LAYOUT:

Exhibit #4 shows the relative location and dimensions of the well pad, steel mud pits, burial pits and location of major rig components. Pad area has been staked and flagged.

Only minor leveling of the well site will be required.

10. OTHER INFORMATION:

The area around the well site is grassland and the top soil is duned and sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.

There is no permanent or live water in the immediate area.

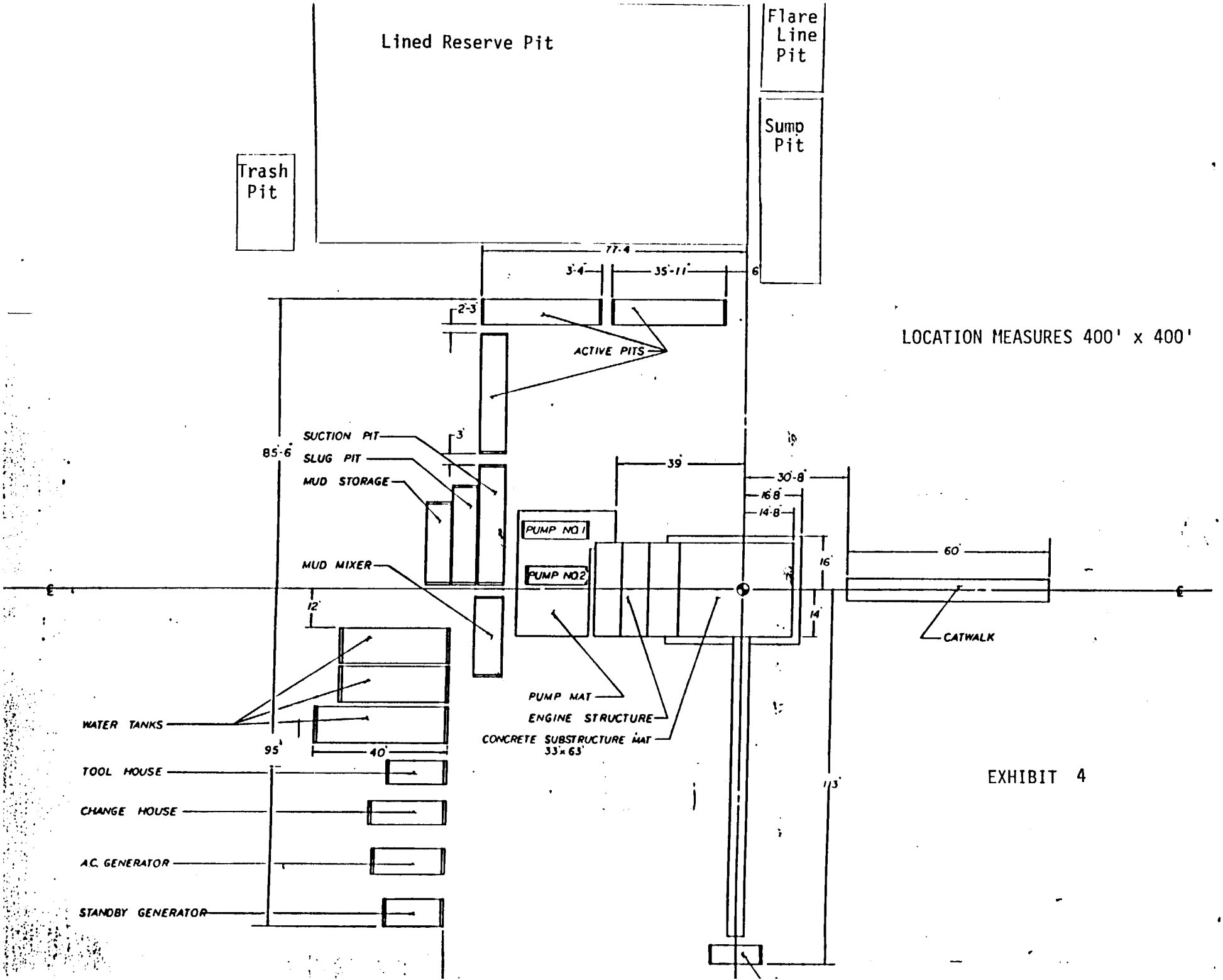
Copy of cultural resources examination completed by Archaeology Survey Consultants is attached.

11. OPERATORS REPRESENTATIVE:

The field representative responsible for assuring compliance with the approved surface-use and operations plan is as follows:

Mr. Dewey Smeltzer
4806 Rustic Tr

Phones: Business - 1-915/686-3601
Home - 1-915/520-9608


Lined Reserve Pit
Flare Line Pit
Sump Pit
Trash Pit
77-4
3-4
35-11
6
2-3
ACTIVE PITS
LOCATION MEASURES 400' x 400'
SUCTION PIT
SLUG PIT
MUD STORAGE
3
85-6
39
30-8
16-8
14-8
PUMP NO 1
PUMP NO 2
MUD MIXER
16
60
12
14
CATWALK
PUMP MAT
ENGINE STRUCTURE
CONCRETE SUBSTRUCTURE MAT
33'x 63'
WATER TANKS
95
40
TOOL HOUSE
CHANGE HOUSE
A.C. GENERATOR
STANDBY GENERATOR
113
EXHIBIT 4

Enron Oil & Gas Company
Dune South 11 Federal No. 1
1980' FSL & 1980' FWL
Sec. 11, T24S, R31E
Eddy County, New Mexico

12. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspection 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 Enron Oil & Gas Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

R L Ingle

Ray L. Ingle
Operations Manager

Date: 20 Aug 93