Form 9-331 C
(May 1963)

OCC COPY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-22130

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-28015

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT AGREEMENT NAME:

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

8. FARM OR LEASE NAME: Eddy "D" Federal Com.

2. NAME OF OPERATOR: GULF OIL CORPORATION

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: P. O. Box 670 Hobbs, NM 88240

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MAY 4 1979
O. C. C.
ARTESIA, OFFICE

10. FIELD AND POOL, OR WILDCAT: North Shugart Atoka Gas
North Shugart Morrow

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FN&WL Section 20-18S-31E
At proposed prod. zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20-18S-31E

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

12. COUNTY OR PARISH: Eddy — 13. STATE: N.M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
	320	320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS
	11,900'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3633' GL

22. APPROX. DATE WORK WILL START*:

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	620'	575 sacks - circulate
12-1/4"	9-5/8"	36# & 40#	4,510'	1500 sacks - circulate
8-3/4"	7"	23# & 26#	11,900'	500 sacks - TOC at 9000'

Mud Program:
0' to 620' - Fresh water spud mud
620' to 10,900' - Brine Water
10,900 to 11,900' - Salt Water Polymer

BOP: See Drawing #4 attached.

Gas is not dedicated.

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FEB 21 1979
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

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 R. C. Anderson TITLE Area Production Mgr. DATE 2-16-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE original permit 4-19-77 5-3-79

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Supersedes C-128

GULF OIL COMPANY	EDDY D FED. COM.	1

F	20	18 South	31 East	Eddy

1980	North	1980	West

Atoka - Morrow	*Und* North Shugart Atoka *Gas* / North Shugart Morrow	320

X Communitization

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FEB 21 1979

U.S. GEOLOGICAL SURVEY ARTESIA, NEW MEXICO

U.S.A.
GULF OIL CORPORATION

1980

U.S.A.
18-31, Inc.

CERTIFICATION

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

R. C. Anderson

R. C. Anderson

Area Manager

Gulf Oil Corporation

February 16, 1979

March 29, 1977

John W. West

NMOCC COPY

United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer U
Artesia, New Mexico 88210

May 3, 1979

Gulf Oil Corporation
P. O. Box 670
Hobbs, New Mexico 88240

GULF OIL CORPORATION
Eddy "D" Federal Com. No. 1
1980 FNL 1980 FWL Sec. 20, T18S, R31E
Eddy County Lease No. NM-28015
Above Data Required on Well Sign

Gentlemen:

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 11,900 feet to test the Morrow formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.

2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and thses Conditions of Approval including the attached General Requirements.

3. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should be not less than 8" x 5" in size and each page should identify the well.

4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate sandstone brown (Federal Standard No. 595A, color 20318 or 30318).

5. Before drilling below the intermediate casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

6. A kelly cock will be installed and maintained in operable condition.

7. After setting the 9-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an inde-

pendent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

    (1) A recording pit level indicator to determine pit volume gains and losses.

    (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.

    (3) A flow sensor on the flow-line to warn of any abnormal mud volume necessary to fill the hole on trips.

9. Notify this office if a water flow is encountered while drilling.

Sincerely yours,

(Orig. Sgd.) JOE G. LARA

Joe G. Lara
Acting District Engineer

Gulf Oil Exploration and Production Company

R. C. Anderson
PRODUCTION MANAGER, HOBBS AREA

P. O. Box 670
Hobbs, NM 88240

February 16, 1979

U. S. Geological Survey
P. O. Box 1157
Hobbs, New Mexico 88240

Gentlemen:

The following is Gulf Oil Corporation's plan for surface restoration associated with the drilling of our Eddy "D" Fed. Com #1 to be located 1980 feet from the North line and 1980 feet from the West line of Section 20, Township 18 South, Range 31 East, Eddy County, New Mexico.

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 condition as possible. Any ungarded pits containing fluids will be fenced until they are filled.

After abandonment of the well, surface restoration will be in accordance with the agreement with the surface owner. Pits will be filled and the location will be cleaned. The pit area, well pad and all unneeded access roads will be ripped to promote revegation. Rehabilitation should be accomplished within ninety (90) days after abandonment.

Very truly yours,

R. C. Anderson

R. C. ANDERSON

RLV:sr

Subscribed and sworn to before me this 16th day of February, 1979.

Brenda K. Parker
Notary Public
Lea County, New Mexico

OFFICIAL SEAL
Signature Brenda K. Parker
BRENDA K. PARKER
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 8-31-82

Gulf

Gulf Oil Exploration and Production Company

R. C. Anderson
PRODUCTION MANAGER, HOBBS AREA

February 16, 1979

P. O. Box 670
Hobbs, NM 88240

Application for Permit to Drill
Eddy "D"
Federal Com Well No. 1
Eddy County, New Mexico

U. S. G. S.
P. O. Drawer "U"
Artesia, NM 88210

Gentlemen:

We are submitting the information requested in NTL-6 which should accompany application for permit to drill.

Well: Eddy "D" Federal Com Well No. 1.

1. Location: 1980' FNL & 1980' FWL Section 20, T-18-S, R-31-E, Eddy Co., New Mexico.

2. Elevation of Unprepared Ground: 3633.0' GL

3. Geologic Name of Surface Formation: Quarternary alluvium.

4. Type Drilling Tools: Rotary.

5. Proposed Drilling Depth: 11,900'.

6. Estimated Tops of Geologic Markers: Anhydrite 520' Yates 2080', Bone Spring 5950', Wolfcamp 9550', Strawn 11,630', Atoka 11,020', Morrow 11,350'.

7. Estimated Depths at which Anticipated Gas of Oil-Bearing Formations Expected:

   A. Atoka section 11,170-11,190' may produce gas.

   B. Morrow section 11,575-11,745' may produce gas.

8. Casing Program and Setting Depths:

	Size	Weight	Grade	Setting Depth
Surface	13-3/8"	48#	K-55	620
Intermediate	9-5/8"	36# & 40#	K-55	4510
Production	7"	23# & 26#	K-55 & N-80	11,900

(continued)

9. Casing Setting Depth and Cementing Program:

   a. Surface casing will be set at 620' cemented with 275 sacks Howco lightweight cement and 300 sacks Class C neat with 2% $CaCl_2$.

   b. Intermediate casing will be set at 4510' and cemented with 1300 sacks 16% Gel Gulf mix & 500 sacks Class C neat. Estimated top of cement to 13-3/8" surface casing.

   c. Production casing will be set at 11,900' and cemented with adequate volume of Class H Cement with 1.0% CFR-2 and .5% Halad-9 to bring cement top to approximately 9000' or above Wolfcamp formation. NOTE: Volume of cement to be determined after running caliper log at total depth.

10. Pressure Control Equipment: The minimum specifications for pressure control equipment can be seen on the attached drawing No. 4 of Gulf's blowout preventer hook-up for 5000 psi working pressure.

11. Circulating Media: 0-620' fresh water spud mud; 620-10,900' brine water; 10,900-11,900' saltwater polymer with the following properties: viscosity 32-37 sec., water loss 20-4 cc, weight 10-10.5 ppg. Heavier weight mud will be used if required by well conditions.

12. Testing, Logging and Coring Programs:

   a. Formation testing may be done at any depth where samples, drilling rate or log information indicate a possible show of oil or gas.

   b. Open-hole logs will be run prior to running casing at total depth.

   c. Coring is not planned.

13. Abnormal Pressure of Temperature and Hydrogen Sulfide Gas: We do not anticipate any abnormal pressure or temperature; however, the following equipment will be installed while nippling up on intermediate casing for pressure control and detection: remote-controlled adjustable choke on flow manifold, drilling separator with gas vent line to burn pit, pit level sensors, flowline sensors and remote control BOP as shown on drawing No. 4.

    The presence of hydrogen sulfide gas is not anticipated.

14. Anticipated Starting Date: Drilling operations should start April 1, 1979.

15. Other Facets of the Proposed Operation: None

R. C. ANDERSON
Area Production Manager

By: R. C. Anderson

RLV:sr
Attachment

Gulf Oil Exploration and Production Company

R. C. Anderson
PRODUCTION MANAGER, HOBBS AREA

February 16, 1979

P. O. Box 670
Hobbs, NM 88240

Surface Development Plan
Eddy "D"
Federal Com Well No. 1
Eddy County, New Mexico

U. S. G. S.
Drawer "U"
Artesia, NM 88210

Gentlemen:

The surface use and operations plan for the proposed Eddy "D" Federal Com Well No. 1 are as follows:

1. Existing Roads:

   A. Exhibit "A" is a portion of a general highway map showing the location of the proposed well as staked. Go 5.8 miles east of Loco Hills, New Mexico, on U.S. Highway 82, turn south on State Highway 31 (potash mine road) 5.8 miles, and staked location is approximately 3000' west of blacktop highway. The legal location of the proposed well is 1980' FNL & 1980' FWL Sec. 20, T-18-S, R-31-E, Eddy County, New Mexico.

   B. Exhibit "B" is a plat showing all existing roads within a one-mile radius of the wellsite, as well as the planned access road (3000' of caliche road of Highway 31 west to location.)

2. Planned Access Roads:

   A. Length and Width: None required.

   B. Turnouts: None required.

   C. Culverts: None required.

   D. Cuts and Fills: None required.

   E. Gates, Cattleguards: None required.

3. Location of Existing Wells:

   A. The proposed well is a deep-test exploration well, with the nearest deep production being Littlefield "EM" Fed Com #1 - 1800' southeast of proposed well. A number of shallow wells are producing in the area, and Exhibit "B" shows the location of all wells within a one-mile radius of the proposed location.

4. Tank Batteries, Production Facilities and Lease Pipelines:

There are no tank batteries, production facilities or lease pipelines on this Unit operated or owned by Gulf Oil Corporation. If production is encountered, the tank battery and other required producing equipment will be located on the well pad. All production lines will be constructed on the well pad, on top of the ground. Refer to Exhibit "D".

5. Water Supply:

Water for drilling will be purchased from a supplier and transported by truck to the wellsite over the existing and proposed roads shown in Exhibits "A" and "B".

6. Source of Construction Materials:

Caliche will be obtained from an existing pit in the SW¼ SE¼ Sec. 20, T-18-S, R-31-E, or NW¼ NE¼ Sec. 29, T-18-S, R-31-E and purchased from B. L. M. by the contractor. Construction material will be hauled over existing roads to the proposed new drillsite. Please refer to Exhibit "B" for location of pit and haul roads.

7. Methods of Handling Waste Disposal:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.

C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, sacks, garbage and junk will be burned or buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown in Exhibit "C".

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

8. Ancillary Facilities: None required.

9. Wellsite Layout:

A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, burn pit, and location of major rig components.

B. Only minor levelling of the wellsite will be required. No significant cuts and fills will be necessary.

C. The reserve pit will be plastic-lined.

D. The wellsite and pad area has been staked.

10. Plans for Restoration of 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 location cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing condition as possible.

B. Any ungraded pits containing fluids will be fenced until they are filled.

C. After abandonment, any special rehabilitation and/or revegetation requirements of the surface management agency will be complied with and accomplished as expeditiously as possible. All pits should be filled and levelled within 90 days after abandonment.

11. Other Information:

A. Topography: The wellsite is located in a reasonably level area among low rolling sand hills.

B. Soil: Soil is sandy underlain by caliche.

C. Flora and Fauna: The vegetative cover is generally sparse and consists of shinnery oak, sandsage, and perennial native range grasses. Wildlife in area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.

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

E. Residences and Other Structures: Nearest occupied dwelling is a ranch house one mile south of wellsite. There are no known water wells in the near vicinity of the wellsite.

F. Land Use: Grazing and hunting in season constitute present land use.

G. Surface Ownership: Wellsite is on Federal surface.

12. Operator's Representative: Gulf Oil Exploration and Production Company
A Division of Gulf Oil Corporation
P. O. Box 670, Hobbs, NM 88240 Telephone 393-4121
Area Production Manager R. C. Anderson.

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Gulf Oil Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: February 16, 1979

R. C. Anderson
Area Production Manager

RLV:sr
Attachments

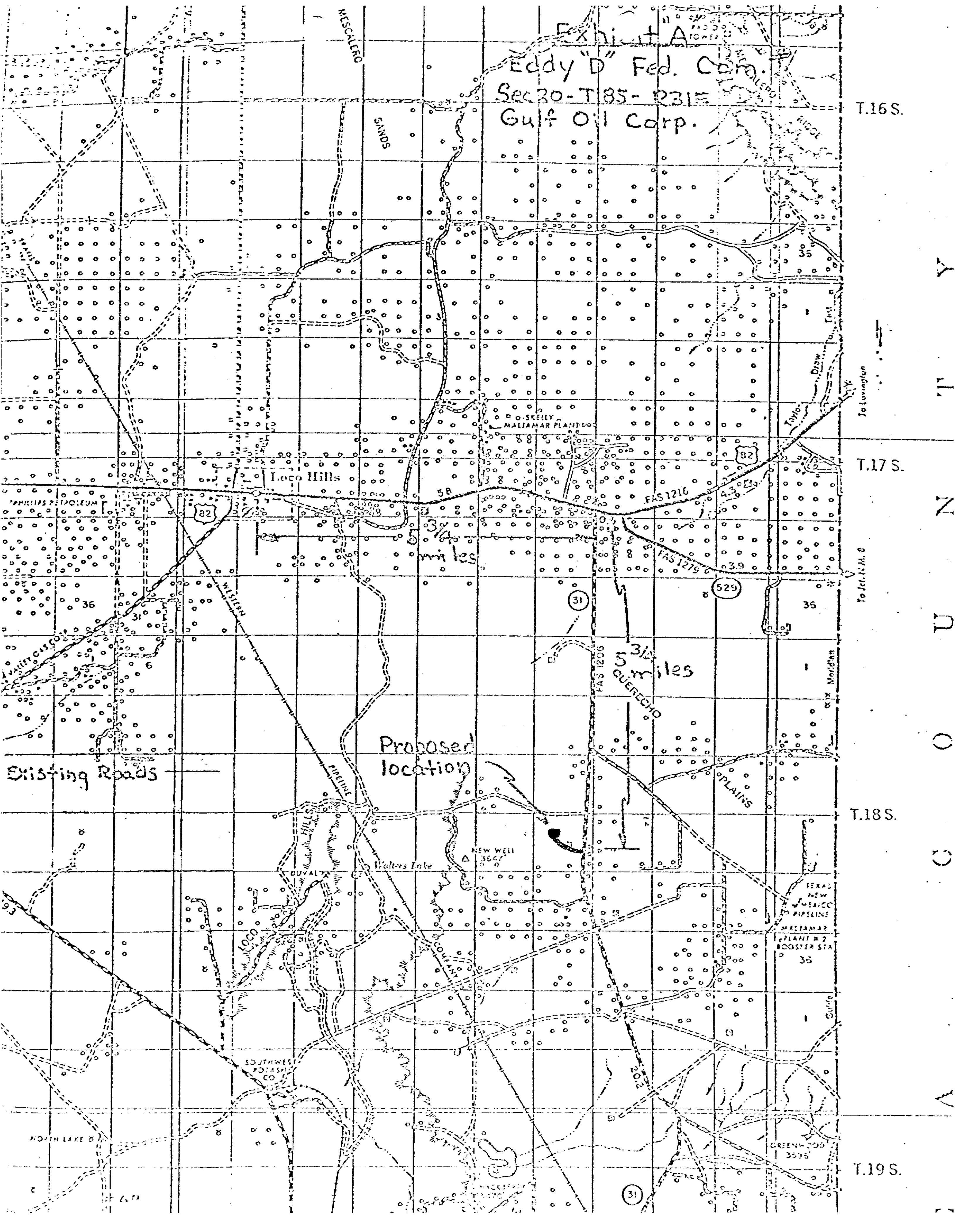

Exhibit "A"
Eddy "D" Fed. Com.
Sec 30-T 18S-R31E
Gulf Oil Corp.
T.16 S.
T.17 S.
T.18 S.
T.19 S.
MESCALERO
SANDS
SKELLY MALJAMAR PLANT
Loco Hills
PHILLIPS PETROLEUM
82
58
FAS 1210
FAS 1279
529
31
5 3/4 miles
5 3/4 miles
FAS 1206
QUERECHO
PLAINS
Proposed location
Existing Roads
NEW WELL
Walters Lake
DUVAL
PIPELINE
WESTERN
TEXAS NEW MEXICO PIPELINE
MALJAMAR PLANT # 2 BOOSTER STA
SOUTHWEST POTASH CO.
NORTH LAKE
GREENWOOD
To Lovington
To Jct. N.M. 8
Y
T
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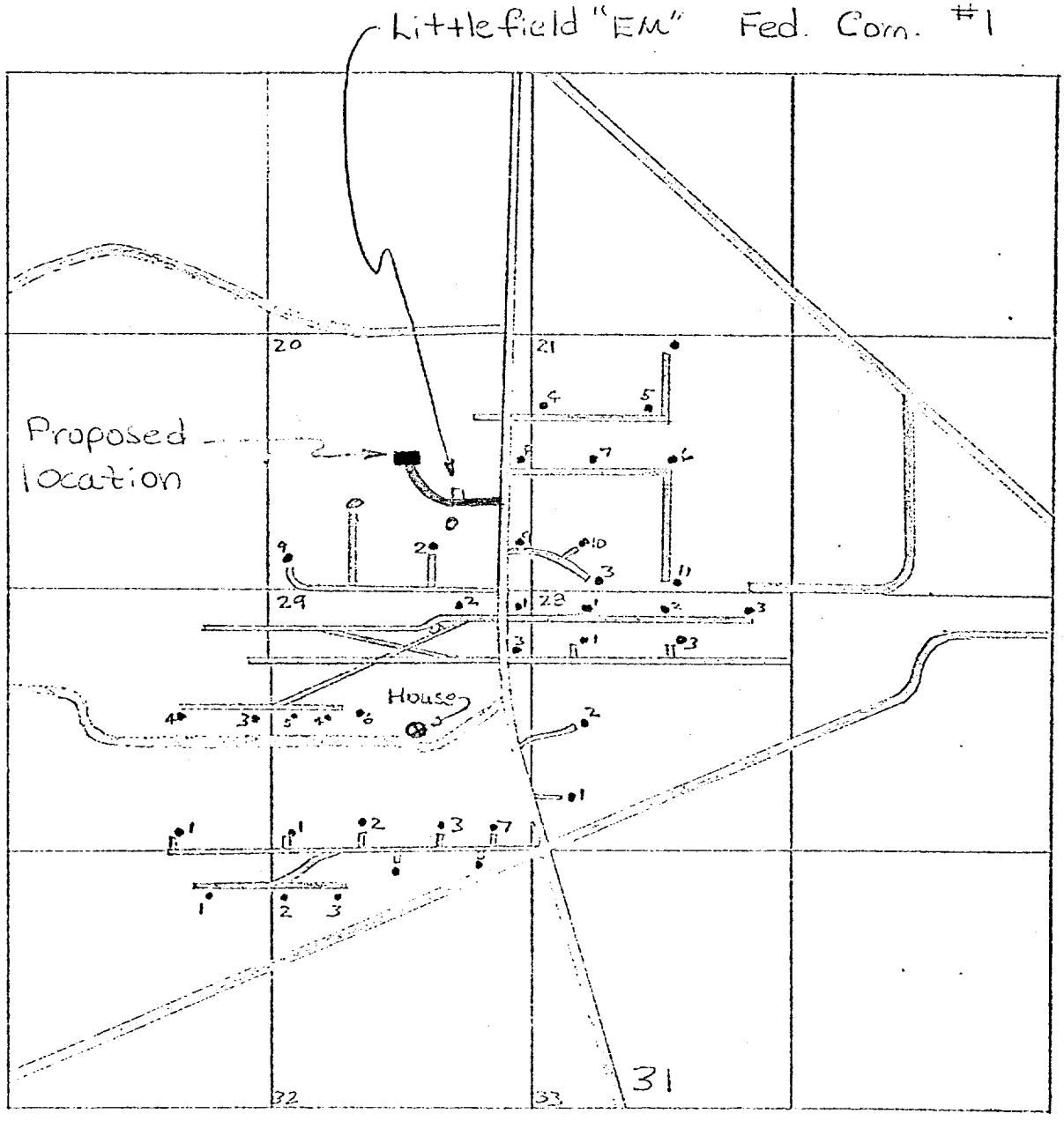
A



Existing Roads

Exhibit "B"
Eddy "D" Fed. Com. #1
Sec 20 - T18S - R31E
Gulf O.I Corp

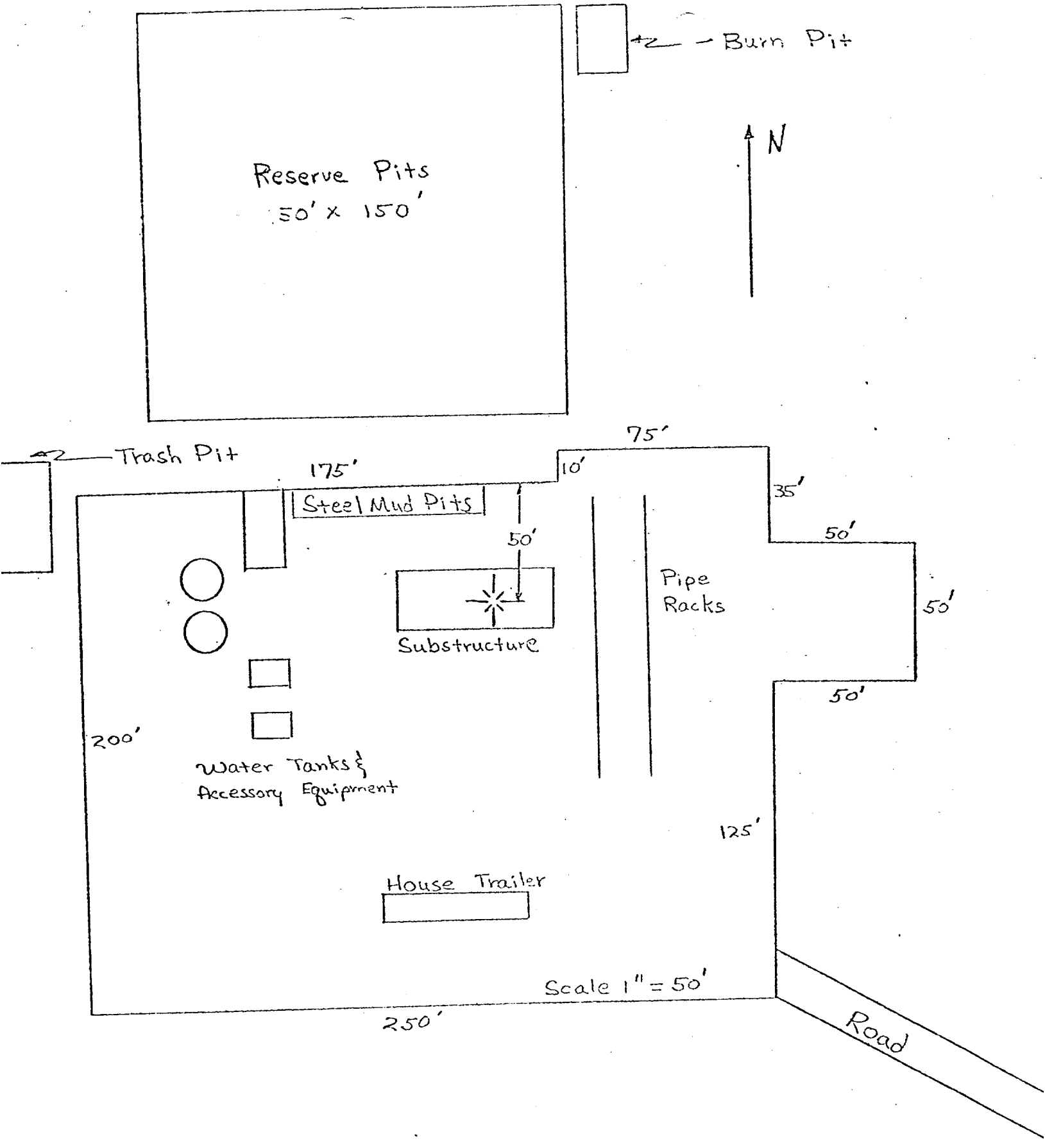


Exhibit "C" - Pad Layout
Eddy "D" Fed. Com. #1
Sec 20- T18S- R31E
Gulf E&A Co. U.S.

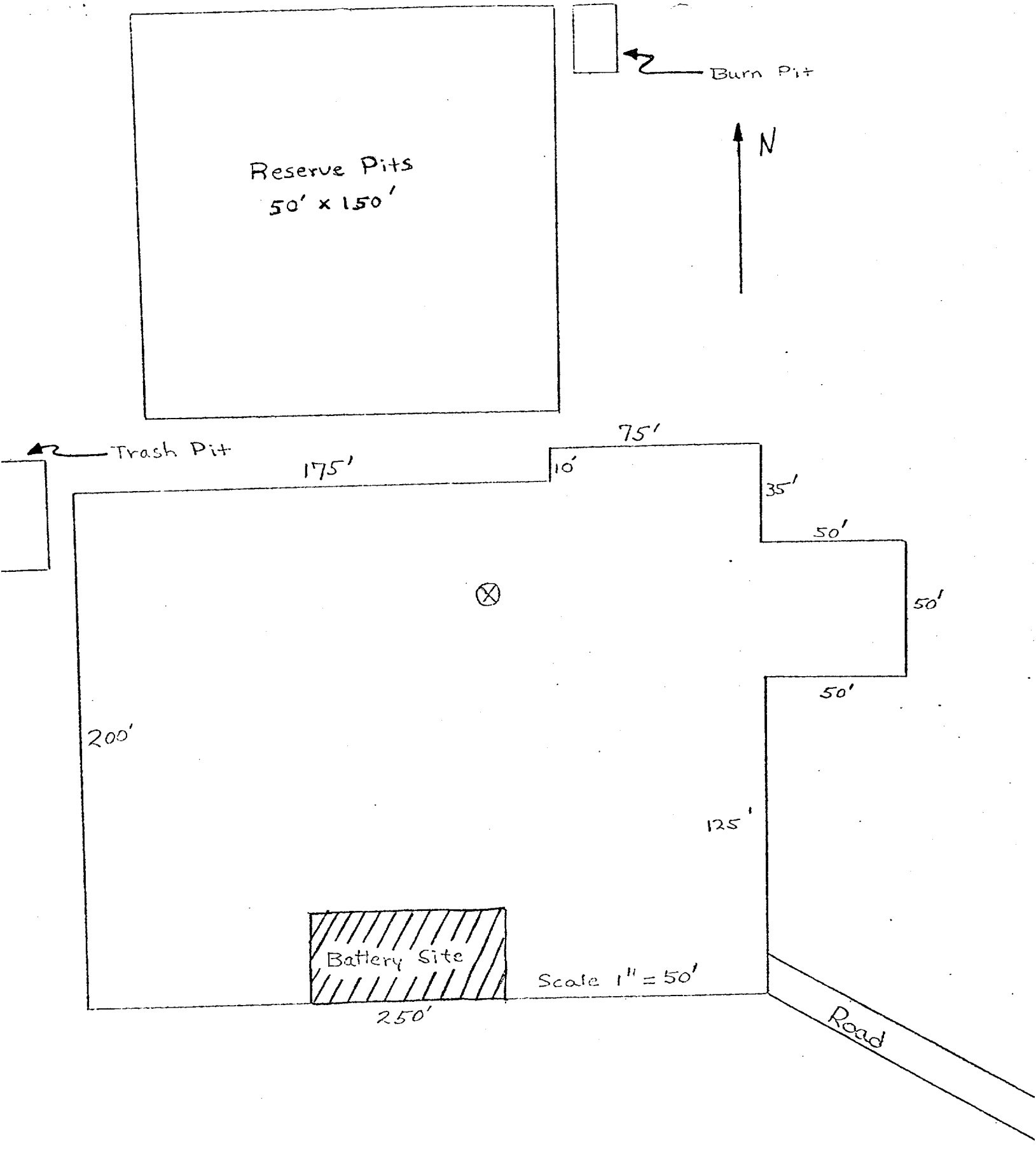
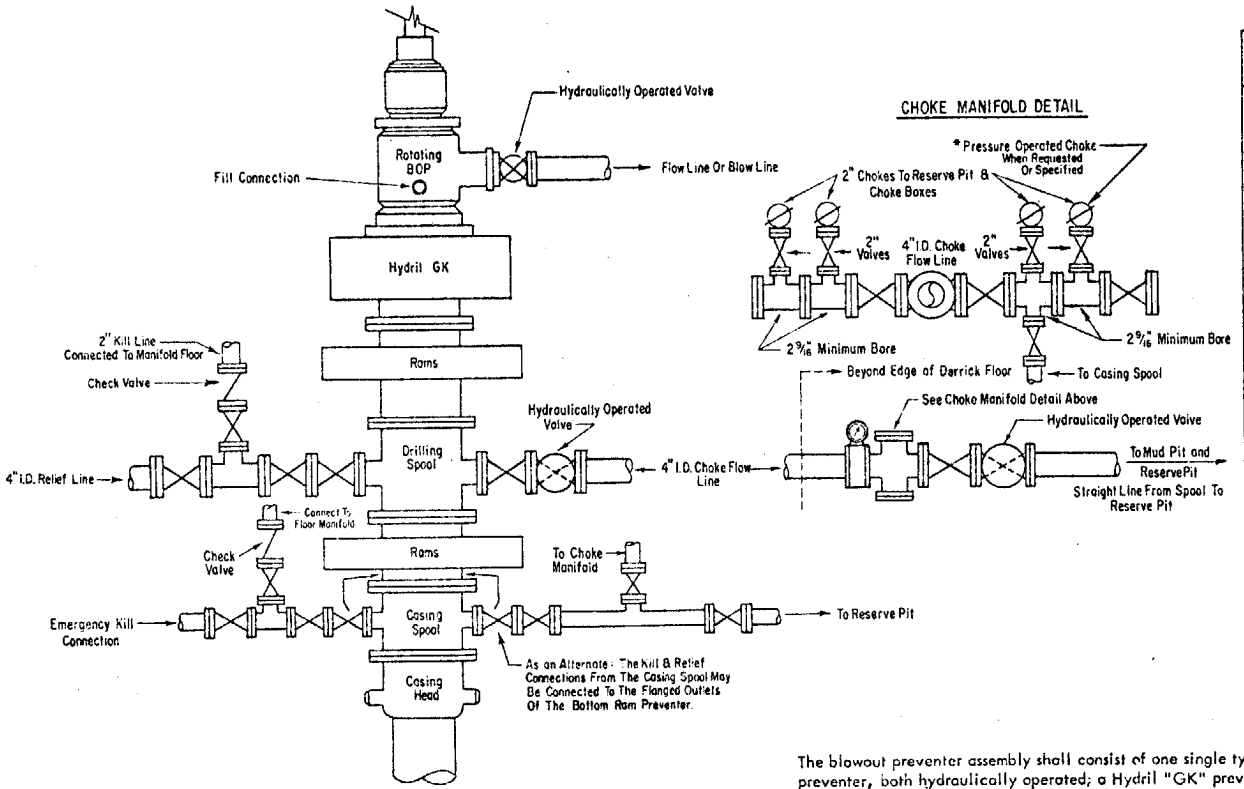


Exhibit "D" - Pad Layout
Eddy "D" Fed. Com. #1
Sec 20 - T18S - R31E
Gulf F&M Co. 21 S

DRAWING NO. 4
Revised April, 1971



CHOKE MANIFOLD DETAIL

ADDITIONS – DELETIONS – CHANGES SPECIFY

5000# PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

The blowout preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram preventer, both hydraulically operated; a Hydril "GK" preventer; a rotating blowout preventer; valves; chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and 4-inch I.D. relief line, except when air or gas drilling. All preventer connections are to be open-face flanged.

Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1)Multiple pumps, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its rated pressure within_____ minutes. Also, the pumps are to be connected to the hydraulic operating system which is to be a closed system. (2) Accumulators with a precharge of nitrogen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-operated devices simultaneously within_____seconds; after closure, the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least_____percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities.

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to ram preventers. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways and stairways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow line valves and relief line valves connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

* To include derrick floor mounted controls.