Form 9-331 C
(May 1963)

N.M.O.C.D. COPY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse)

Form approved.
Budget Bureau No. 42-R1425.

30-015-23486

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM 30395

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

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

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Callaway Federal

9. WELL NO.: 2

2. NAME OF OPERATOR: Gulf Oil Corporation

10. FIELD AND POOL, OR WILDCAT: Undes. Diamond Mound Atoka

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2400' FNL & 1980' FEL
At proposed prod. zone: Unit J Sec 10

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O. C. D.
ARTESIA, OFFICE

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 6-T16S-R28E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 11 miles E/SE of Lake Arthur

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)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
	1474.98	270.80
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
	9150'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3591.9' GL

22. APPROX. DATE WORK WILL START*: September 25, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4"	11-3/4"	42#	400'	600 sx-circulated
11"	8-5/8"	24#	1700'	500 sx-circulated
7-7/8"	5½"	17# & 15.5#	9150'	TSITOC @ 6500'

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ARTESIA, NEW MEXICO

Mud Program:
0' - 400' Fresh water spud mud
400' - 6000' Fresh water
6000' - 8000' Brine water
8000' - 9150' Brine water polymer

See Attached BOP Drawing #3

Gas is not dedicated.

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 C. E. Mauldin TITLE Area Production Manager DATE 9-2-80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Provided NMOCD approves non-standard proration unit

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WEI LOCATION AND ACREAGE DEDICATIC PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
GULF OIL CORPORATION	Callaway Federal	2

Unit Letter	Section	Township	Range	County
J	6	16 South	28 East	Eddy

Actual Footage Location of Well: 2400 feet from the North line and 1980 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3591.9	Atoka	Undes. Diamond Mound Atoka	270.80 Acres

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

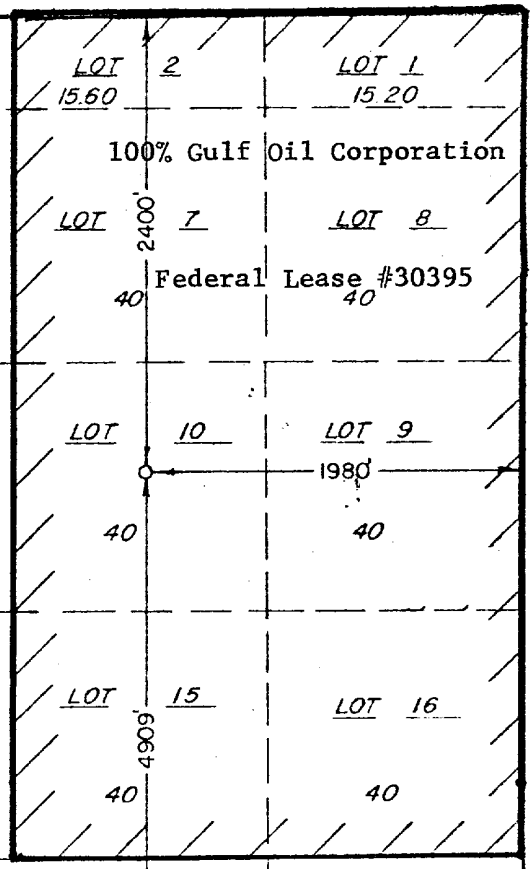
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



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ARTESIA, NEW MEXICO

REG. PROF. ENGINEER & LAND SURVEYOR
STATE OF NEW MEXICO
676
JOHN W WEST

CERTIFICATION

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

for R. C. ANDERSON
Name

Area Production Manager
Position

Gulf Oil Corporation
Company

9-2-80
Date

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.

August 28, 1980
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239

United States Department of the Interior

GEOLOGICAL SURVEY

SPECIAL APPROVAL STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN:

Gulf Oil Corp	Calloway Fed No. 2
OPERATOR	WELL DESIGNATION
6-16S-28E	Eddy
S-T-R	COUNTY
NM-30395	
LEASE NO.	

THE SPECIAL STIPULATIONS CHECK MARKED BELOW ARE APPLICABLE TO THE ABOVE-DESCRIBED WELL AND APPROVAL OF THIS APPLICATION TO DRILL IS CONDITIONED UPON COMPLIANCE WITH SUCH STIPULATIONS. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE SPECIAL STIPULATIONS PURSUANT TO TITLE 30 CFR 290.

[X] A. 11 3/4" surface casing should be set in the Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set at a lesser depth, the _____ casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler after cementing around the shoe with sufficient cement to fill to the base of the salt section.

[X] B. Before drilling below the 8 5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

[ ] C. Casing protectors will be run on drill pipe while drilling through the _____ casing. Protectors will be of sufficient number and of sufficient outside diameter to protect the casing.

[X] D. Minimum required fill of cement behind the 8 5/8" casing is to CEMENT TO SURFACE.

[X] E. After setting the 8 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 independent 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.

[X] F. 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 returns from the well.

[X] G. All pits containing toxic liquids will be fenced and covered with a fine mesh netting, if necessary for the protection of livestock or wildlife.

[X] H. Above ground permanent structures and equipment shall be painted in accordance with the Painting Guidelines. The paint color is to simulate:

[X] Sandstone Brown, Fed. Std. 595-20318 or 30318

OR [X] Sagebrush Gray, Fed. Std. 595-26357 or 36357

[ ]

[X] I. A kelly cock will be installed and maintained in operable condition.

[X] J. The ARTESIA Sub-District Office is to be notified in sufficient time for a representative to witness:

(a) Spudding ✓

(b) Cementing casing

8 5/8" inch

_____ inch

_____ inch

(c) ~~BOP tests~~

[ ] K. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the U. S. Geological Survey, P. O. Box 26124, Albuquerque, New Mexico 87125. The effective date of the agreement must be prior to any sales.

[ ] L. A Gamma Ray-Compensated Neutron log is required from the base of the salt section to the surface with cable speed not to exceed 30 feet per minute.

[ ] M. At least one working day prior to constructing the well pad, access roads and/or related facilities, the operator or dirt contractor shall notify the authorized officer (Bureau of Land Management, CARLSBAD area). He shall also notify the Authorized Officer within two working days after completion of earth-moving activities.

[ ] N. All access roads constructed in conjunction with the drilling permit (APD) will be limited to a 12 foot wide driving surface, excluding turn-arounds. Surface disturbance associated with construction and/or use of the road will be limited to 20 feet in width. If well is a producer, all roads will be adequately drained to control runoff and soil erosion. Drainage facilities may include ditches, water bars, culverts and/or any other measures deemed necessary by the authorized officer of the BLM. The following is a general guide for the spacing of water bars:

% Slope	
less than 2%	200 ft.
2% to 4%	100 ft.
4% to 5%	75 ft.
more than 5%	50 ft.

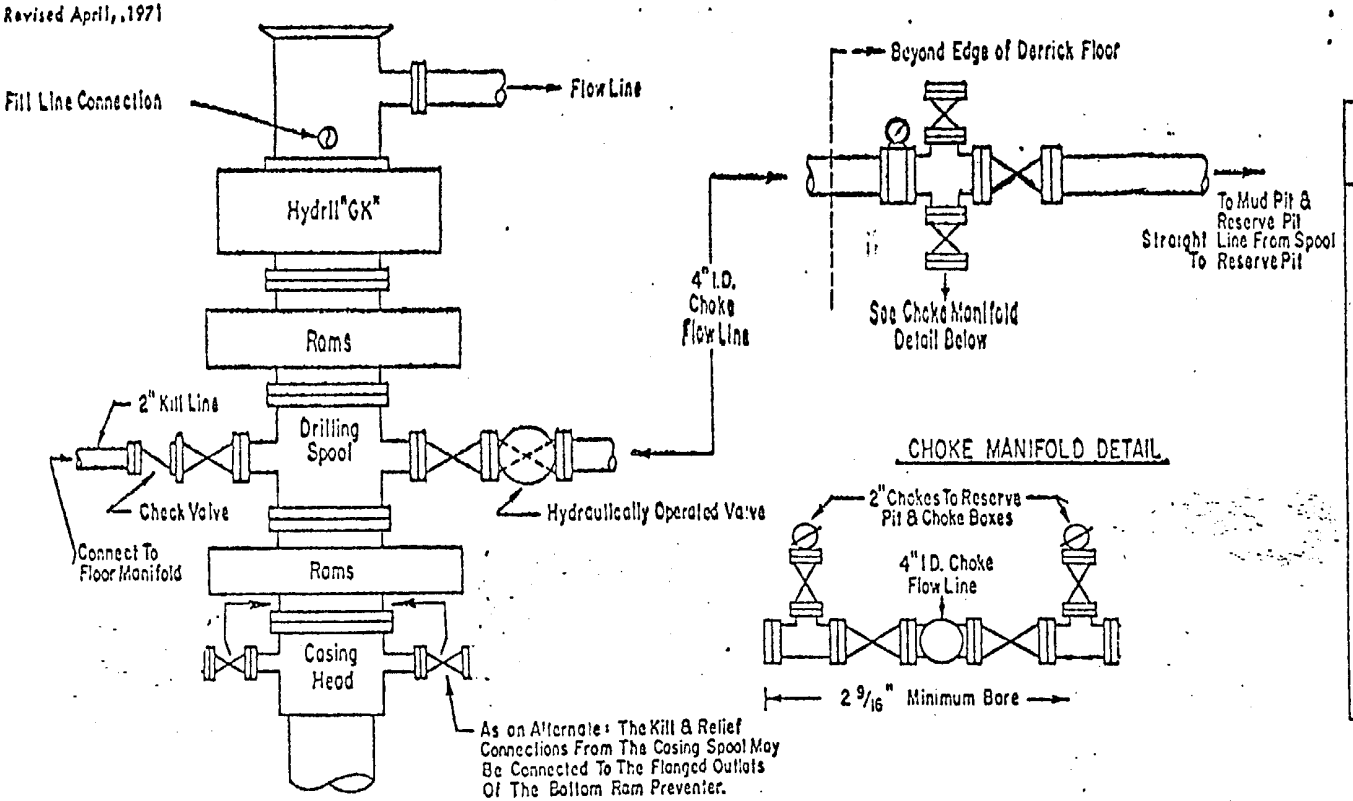
[X] O. Other special stipulations

a. Any permanent pit containing waste oil must be fenced and covered with mesh wire.

b. V-DOOR NORTH

c. ACCESS ROAD WILL PARALLEL SOUTH EDGE of PIPE-LINE Right-of-Way.

DRAWING NO.3
Revised April, 1971



CHOKE MANIFOLD DETAIL

ADDITIONS - DELETIONS - CHANGES SPECIFY

3000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated, a Hydril "GK" 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 kill line, except when air or gas drilling. The substructure height shall be sufficient to install a rotating blowout preventer.

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, and choke lines are to be supported by metal stands and adequately anchored. The choke flow 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. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow 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 hand wheels.

* To include derrick floor mounted controls.

Gulf Oil Exploration and Production Company

R. C. Anderson
PRODUCTION MANAGER, HOBBS AREA

September 2, 1980

P. O. Box 670
Hobbs, NM 88240

U. S. Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

Gentlemen:

The following is Gulf Oil Corporation's plan for surface restoration associated with the drilling of our Callaway Federal No. 2, to be located 2400' from the north line and 1980' from the east line of Section 6, Township 16 South, Range 28 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 unguarded 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 revegetation. Rehabilitation should be accomplished within ninety (90) days after abandonment.

Yours very truly,

C. L. Morrill

HVH/jr

Subscribed and sworn to before me this 3rd day of September, 1980.

OFFICIAL SEAL
Signed D. C. Heese
D. C. HEESE
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 3-21-83

Gulf

A DIVISION OF GULF OIL CORPORATION

Gulf Oil Exploration and Production Company

R. C. Anderson
PRODUCTION MANAGER, HOBBS AREA

P. O. Box 670
Hobbs. NM 88240

Re: Application for Permit to Drill
Callaway Federal #2
Eddy County, New Mexico

U. S. Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

Gentlemen:

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

Well: Callaway Federal Well No. 2

(1) Location: 2400' FNL & 1980' FEL, Section 6-T16S-R28E, Eddy County, New Mexico

(2) Elevation of Unprepared Ground: 3591.9'

(3) Geologic Name of Surface Formation: Quarternary alluvium

(4) Type Drilling Tools: Rotary

(5) Proposed Drilling Depth: 9150'

(6) Estimated Tops of Geologic Markers: Yates 150'; Queen 1000'; Tubb 4375'; Abo 5150'; Wolfcamp 6350'; Canyon 7425'; Strawn 8200'; Atoka 8625'; Chester 9100'

(7) Estimated Depths at Which Anticipated Gas or Oil-Bearing Formations Expected: Atoka Morrow section 8625' to 9100' may produce gas.

(8) Casing Program and Setting Depths:

	Size	Weight	Grade	Setting Depth
Surface	11-3/4"	42#	H-40	400'
Intermediate	8-5/8"	24#	K-55	1700'
Production	5½"	15.5 & 17#	K-55	9150'

(9) Casing Setting Depth and Cementing Program:

(a) Surface casing will be set at 400', cemented with 500 sacks of light cement followed by 100 sacks of Class "H" with 2% $CaCl_2$.

(9) Casing Setting Depth and Cementing Program (continued):

(b) Intermediate casing will be set at 1700' and cemented with 300 sacks of light weight cement and 200 sacks Class "C" neat.

(c) Production casing will be set at 9150' and cemented with adequate volume of Class "H" cement with friction reducer to bring cement top to approximately 6500'. 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. 3 of Gulf's blowout preventer hook-up for 3000 psi working pressure.

(11) Circulating Media:

0-400' Fresh water spud mud; 400-6000' Fresh water; 6000-8000' Brine water; 8000-9150' Brine water polymer.

(12) Testing, Logging and Coring Program:

(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.

(13) Abnormal Pressure or 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. 3.

The presence of hydrogen sulfide gas is not anticipated.

(14) Anticipated Starting Date:

Drilling operations should start between September 25, 1980 and October 15, 1980.

(15) Other Facets of the Proposed Operation: None

Yours very truly,

for R. C. ANDERSON
Area Production Manager

HVH/jr

Attachment

Gulf Oil Exploration and Production Company

R. C. Anderson
PRODUCTION MANAGER, HOBBS AREA

September 2, 1980

P. O. Box 670
Hobbs, NM 88240

Re: Surface Development Plan-Proposed
Callaway Federal Well No. 2
2400' FNL & 1980' FEL, Section
6-T16S-R28E, Eddy County, NM

U. S. Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

Gentlemen:

The surface use and operations plan for the proposed well are as follows:

1. Existing Road

   A. Exhibit "A" is a portion of a general lease map showing the location of the proposed well as staked. Go east out of Lake Arthur on State Road 507 10 miles; turn right through cattle guard and go ½ mile; keep right. Our Callaway Federal #2 location is approximately .5 miles east of our Callaway Federal #1.

   B. Exhibit "B" is a portion of a lease map showing all existing roads within a one-mile radius of the well site.

2. Planned Access Roads

   A. Length & Width: The new road required will be 12' wide and approximately 2440' long. The new road is color-coded red on Exhibit "A" and Exhibit "B". The proposed road has been staked and flagged.

   B. Surfacing Material: Six (6) inches of caliche, water compacted and graded.

   C. Turnouts: None required.

   D. Culverts: At location.

   E. Cuts and Fills: Two foot cut on east side of location and two foot fill on west side of location.

   F. Gates and Cattle Guards: None

3. Location of Existing Wells

Existing wells within a one-mile radius are shown on Exhibit "B".

4. Location of Proposed Facilities

Should this well be completed as a commercial producing well, new tank battery facilities will be required. These facilities will be constructed within the 400' x 400' work area as staked. All lines will be installed above ground and located as shown on Exhibit "C".

5. Location and Type Water Supply

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

6. Source of Construction Material

Caliche for surfacing the road and the well pad will be obtained from a Federal pit in the SE/4 of NE/4 of Section 11-T16S-R28E.

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, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24" of dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "D".

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

8. Ancillary Facilities

A. None required.

9. Well Site Layout

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

9. Well Site Layout (continued)

B. Only minor levelling of the well site will be required. One cut and one fill will be necessary.

C. The reserve pit will be plastic lined.

D. The pad and pit area have been staked and flagged.

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 location cleaned of all trash and junk to leave the well site in as aesthetically pleasing condition as possible.

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

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

11. Other Information

A. Topography: Land surface is generally level with a deep sand cover. The undisturbed well site elevation is 3591.9'.

B. Soil: Soil is a deep, find sand underlain by caliche.

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

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

E. Residences and Other Structures: There is an occupied dwelling in the immediate area, located 1.2 miles northwest of the proposed location in Section 6-T16S-R28E. The residence is located in Section 34-T15S-R27E. The nearest water well is located approximately 1.3 miles northwest of the proposed location.

F. Archeological, Historical and Cultural Sites: None observed in the area.

G. Land Use: Graxing and hunting, in season.

H. Surface Ownership: Surface is Federal.

12. Operator's Representative

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

Gulf Oil Exploration and Production Co.
A Division of Gulf Oil Corporation
P. O. Box 670
Hobbs, New Mexico 88240
Telephone: (505) 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 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 operations proposed herein will be performed by Gulf Oil Corporation and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

9.2-80
Date

for R. C. Anderson
Area Production Manager

Exhibit A
Calloway Fed
Sec 6, T16S, R28E
Eddy Co, New Mexico