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*See Instructions On Reverse Side

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NI VEXICO OIL CONSERVATION COMMISS

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

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M.O.C.D. COPY – United States Department of the Interior

NOV 6 1979

RECEIVED

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

O. C. C. ARTESIA, OFFICE

November 5, 1979

Gulf Oil Corporation P. O. Box 670 Hobbs, New Mexico 88240 GULF OIL CORPORATION Callaway Fed No. 1 2212 FNL 660 FWL Sec. 6 T.16S R.28E Eddy County Lease No. NM 30395

GentLemen:

Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 9,100 feet to test the Atoka 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 these 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 not be 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 8-5/8" 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 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.
- 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 returns from the well.
- 9. Notify the Survey in sufficient time to witness the cementing of the 8-5/8" casing.
- 10. Cement behind the 11-3/4" and 8-5/8" casing must be circulated.
- 11. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

George H. Stewart Acting District Engineer



DRAWING NO.3

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 hydroultcally operated; a Hydril "GK" preventer; valves; chokes mu connections as ilkustrated. If a topered drill string is used, a ram preventer must be provided for each size of drill pipo. Casing and tubing nam to fit the preventers are to be available os needed. If correct in size, the flanged outlets of the raw preventer may be used for connecting to the 4-inch 1.D. choke flow "ne and kill ine, except when air or gas drilling. The substructure horght shall be suflicient 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 presure to lis rated presure within minutes. Also, the pumps are to be connected to the hydroulle 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 aforementio-ed fluid charge. With the energing purpose shall be retered for the presenting of the presenting accumulator fluid volume at least. The presented devices simultaneously within the rescards after closure, the remaining accumulator fluid volume at least. The original (3) <u>When required fluid of a solution of power</u>, remaining accumulator fluid volume at least. The original (3) <u>When required fluid of a solution of power</u>, remaining accumulator fund volume at least. The original (3) <u>When required fluid of a solution of power</u>, remaining accumulator fund volume at least percent of the original. (3) <u>When required fluid of power</u>, remained 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 copobilities.

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 regulater must be provided for operating the Hydril preventar. When <u>requested</u>, a second pressure reducer shall be evallable to limit operating fluid pressures to ram preventers. Gulf Legion No.38 hydraulic ail, 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 metol stands and adequately anchored. The choke flow line and choke flow so an increted as straight as possible and without shorp bends. Easy and safe access is to be maintoined to the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling f uids. The choke flow line valves connected to the drilling spool and ult can type preventers must be equiped with stam extensions, universal joints if needed, and wheels which are to extend beyond the edge of time valves connected to the drilling spool and ult can type preventers must be equipped with stam extensions, universal joints if needed, and wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with hardles.

* To include derrick floor mounted controls.

Gulf Oil Exploration and Production Company

R. C. Anderson PRODUCTION MANAGER, HOBBS AREA

October 9, 1979

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. 1 to be located 2212' from the north line and 660' from the west 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,

f.C. Cuder

GSP:ctw

Subscribed and sworn to before me this

s	11th day of Colober.	1979.
	Contrat State	flm
	Notary Public Lea County, New Mexico	***
	Sty Conversion Craires 8 -21-81	



A DIVISION OF GULF OIL CORPORATION

Gulf Oil Exploration and Production Company

R. C. Anderson PRODUCTION MANAGER, HOBBS AREA October 9, 1979

P. O. Box 670 Hobbs, NM 88240

Re: Application for Permit to Drill Callaway Federal #1 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. 1

- (1) Location: 2212' FNL & 660' FWL, Section 6-T16S-R28E, Eddy County, New Mexico.
- (2) Elevation of Unprepared Ground: 3528.7'
- (3) Geologic Name of Surface Formation: Quarternary alluvium.
- (4) Type Drilling Tools: Rotary.
- (5) Proposed Drilling Depth: 9,100".
- (6) Estimated Tops of Geologic Markers: Yates 150'; Queen 1000'; Tubb 4450'; Abo 5200'; Wolfcamp 6400'; Canyon 7600'; Strawn 8300'; Atoka 8600'; Chester 9050'.
- (7) Estimated Depths at Which Anticipated Gas or Oil-Bearing Formations Expected:
 Atoka section 8600' to 9000' may produce gas.
- (8) Casing Program and Setting Depths:

	Size	Weight	Grade	Setting Depth
Surface	11-3/4"	42#	н -40	400'
Intermediate	8-5/8"	24#	к - 55	1700'
Production	533"	15.5 & 17#	к - 55	9100'

- (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% CaCl₂.



U. S. Geological Survey

(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 9100' 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 5000 psi working pressure.

(11) Circulating Media:

0-400' Fresh water spud mud; 400-6000' Fresh water; 6000-8000' Brine water; 8000-9100' 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 November 1, 1979 and December 1, 1979.

(15) Other Facets of the Proposed Operation: None.

Yours very truly,

K. C. Cendus

R. C. Anderson Area Production Manager

Attachment

GSP:ctw

Gulf Oil Exploration and Production Company

R. C. Anderson PRODUCTION MANAGER, HOBBS AREA

Gentlemen:

October 9, 1979

P. O. Box 670 Hobbs, NM 88240

Surface Development Plan - Proposed Re: Callaway Federal Well No. 1 2212' FNL & 660' FWL Section 6-T16S-R28E, Eddy County, NM

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

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U.S. GEOLOGICAL SURVEY

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

- Existing Road 1.
 - Exhibit "A" is a portion of a general lease map showing the A. 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 to location.
 - B. Exhibit "B" is a portion of a lease map showing all existing roads within a one-mile radius of the well site.
- Planned Access Roads 2.
 - Length & Width: The new road required will be 12' wide and Α. approximately 660' 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: A cattle guard will be installed where the road crosses the county line and the existing cattle guard at the county road turnoff into Miller Ranch House will be replaced. The locations of the two cattle guards are shown on Exhibit "B".



A DIVISION OF GULF OI _ CORPORATION

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.

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- 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 an 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. <u>Topography</u>: Land surface is generally level with a deep sand cover. The undisturbed well site elevation is 3528.7'.
- B. Soil: Soil is a deep, fine sand underlain by caliche.
- C. <u>Flora and Fauna</u>: 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. <u>Ponds and Streams</u>: There are no rivers, streams, lakes or ponds in the area.
- E. <u>Residences and Other Structures</u>: There is an occupied dwelling in the immediate area, located 0.8 miles north 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 mile north of the proposed location.
- F. <u>Archeological, Historical and Cultural Sites</u>: None observed in the area.
- G. Land Use: Grazing and hunting, in season.
- H. Surface Ownership: Surface is Federal.

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12. Operator's Representative

The field representatives responsible for assuring compliance with the approved surface use and operations plan are 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 the 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.

October 9, 1979 Date

R. C. Anderson Area Production Manager

Exhibit A Calloway Fed #1 ec 6 Tibs, R28E Fodie Co, New Mexico







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