

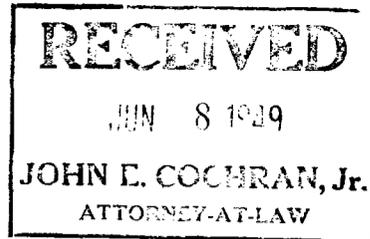


UNITED STATES
DEPARTMENT OF THE INTERIOR

Exhibit A

GEOLOGICAL SURVEY

P. O. Box 997
Roswell, New Mexico
June 7, 1949



Mr. John E. Cochran, Jr.
Carper Building
Artesia, New Mexico

Re: Lease Las Cruces 029410(a)

Dear Mr. Cochran:

Reference is made to your letter of June 4 transmitting a copy of an application executed by you as attorney for applicant for Carper Drilling Company, Inc., which you are filing with the New Mexico Oil Conservation Commission for permission to drill well No. 9N Simon at an unorthodox location in sec. 29, T. 17 S., R. 32 E., N.M.P.M., Maljamar pool, New Mexico. The proposed well is to be located 1345 feet from the east line and 1295 feet from the south line of said section 29.

The land on which the proposed well is to be drilled is embraced in Federal oil and gas lease Las Cruces 029410(a).

The unorthodox well location as described in the application is approximately 25 feet from the common intersection of the boundaries of a 40-acre legal subdivision. No encroachment of the outer boundaries of the leasehold is involved as the proposed location is 1295 feet from the lease boundary.

No objection is offered by this office to the drilling of well No. 9N Simon at the location specified. It is the opinion of this office that the drilling of such additional wells on the leasehold should be encouraged to increase the ultimate recovery of oil and gas from the Maljamar pool.

Approval to drill the proposed well at the unorthodox location will be contingent upon (1) the approval of such location by the Oil Conservation Commission of the State of New Mexico for proration purposes and (2) the filing of a stipulation in triplicate executed by the Carper Drilling Company, Inc., wherein it agrees to treat the 40-acre tracts surrounding the well as a single unit for purposes of assignment and that none of the 40-acre tracts involved will be separately assigned until the well has been properly plugged and abandoned.

Very truly yours,

Foster Morrell
Foster Morrell,
Oil and Gas Supervisor,
Southwestern Region.

cc: Mr. Cochran (2)

Gulf - Case 118
Paul Evans

Hobbs, New Mexico
June 14, 1949

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

The Gulf Oil Corporation will present evidence to show the Commission cause whereby they should be allowed to dually complete the Gulf Holt "B" No. 1, located 660 feet from the east line and 1980 feet from the south line of Section 36-23S-36E, Lea County, New Mexico.

The witness for the Gulf Oil Corporation is Mr. Paul C. Evans, District Engineer, Hobbs, New Mexico. Mr. Evans has previously qualified as a witness before the New Mexico Oil Conservation Commission. He graduated from Texas A. & M. College in 1937 with a B. S. degree in Petroleum Production Engineering. He obtained 3-1/2 years of engineering experience with the Gulf Oil Corporation as training engineer and production engineer in various phases in New Mexico, Oklahoma, Illinois, and Indiana. Then, he was transferred to Michigan as District Engineer for 1/2 year prior to entering military service where he served in the Field Artillery for 4 years. He has been employed as District Engineer for Gulf in New Mexico for the past 4 years. He is a registered professional engineer and land surveyor in the State of New Mexico.

Stafford and McVay Drilling Company's rotary tools were rigged up and drilling operations commenced on April 23, 1949. The 9-5/8" OD, 36#, H-40, S.S. casing was set at 322 feet and cemented with 200 sacks of cement which circulated to the surface. The Yates sand was encountered at 2960 feet and extended to 3245 feet to the top of the Seven Rivers formation. The offset information and geological data indicated the commercial gas producing possibilities of this section. The 5-1/2" OD, 17#, S.S. casing was set at 3450 feet in the Seven Rivers formation and cemented with 750 sacks of cement. A temperature survey indicated the top of the cement behind the 5-1/2" casing to be at 1650 feet. Prior to running casing, this well was drilled to a total depth of 3610 feet in the Queen sand. A Lane Wells radio-activity survey was run from total depth to 2300 feet and three copies of this log are submitted to the Commission for their information. A drill stem test with a hookwall packer set at 3420 feet was taken with total depth of 3610 feet. The Halliburton tool was left open for 4 hours and we received 400 feet of oil and gas cut mud and 1200 feet of clean oil. The flowing pressure was 800 psi and the 15 minute build-up pressure was 930 psi. This information indicated that the exposed Seven Rivers and Queen formations needed to be shot with nitroglycerin to obtain maximum production. The rotary rig was dismantled and cable tools were rigged up.

Two hundred quarts of special oil well explosive No. 1, solidified nitroglycerin, was placed from 3610 feet to 3501 feet. A proper solid stem was placed above the explosive and it was stemmed to the surface with oil. After cleaning out to total depth after the shot exploded, this well flowed 137 barrels of oil in 12 hours and is now producing its daily allowable to the lease stock tanks in a normal manner.

After permission is obtained to dually complete this well, it is planned to "kill" the well with oil base mud on bottom and water to the surface and pull the 2-7/8" OD tubing. The Yates sand section from 2940 feet to 3120 feet will be perforated with 360 jet holes. Then, a permanent type 5-1/2" x 2-7/8" Baker model "L" retainer production packer will be set at 3420 feet. The tubing string will then be run from bottom up as follows:

1. Standard perforated anchor with 2-7/8" tubing from 3605 feet to 3420 feet.
2. Baker packing element to set in permanent type packer at 3420 feet.
3. 2-7/8" x 6' tubing nipple
4. 2-7/8" OD Otis type "L" side door choke with landing nipple at 3412 feet.
5. 2-7/8" OD tubing to the surface

The attached schematic drawing shows the intended producing equipment to be installed in Holt "B" No. 1.

The Otis side door choke will be run which will shut-off the lower oil producing Queen sand and expose the Yates gas sand to the tubing through perforations in the landing nipple. The Yates gas sand will be produced through the tubing until it cleans up. Then, the Otis side door choke will be pulled and re-run to allow the Yates gas sand to be segregated from the tubing and the oil producing Queen sand section to be produced through the tubing. This installation will now allow the Yates gas sand to be produced through the casing and the Queen oil section to be produced through the tubing without commingling of fluids.

Segregation tests will then be obtained in the following manner:

1. Both zones will be shut-in until maximum tubing and casing pressures are observed. A dual pressure recorder will be installed so that both tubing and casing pressure can be recorded on the same chart and at the same time.
2. Prior to opening the casing, a bottom hole pressure recording instrument will be run in the tubing to record the static BHP of the oil producing zone. With the BHP gauge in the tubing, the Yates gas will be flowed through the casing at a reasonable rate. The dual recorder will still be installed to obtain casing and tubing pressures during this operation.

3. If there is no evidence of communication on the above test, the casing will be shut-in until maximum casing pressure is obtained.

4. Then, the oil zone will be flowed through the tubing with the casing shut-in, and the dual recorder will record the tubing and casing pressures. The oil and gas produced through the tubing will be measured.

5. The dual recording pressure charts, static BHP of the oil zone, and measured volumes of fluid from each zone will be reported to the Commission.

The oil that will be produced from the Queen section will be stored in tanks on the lease. There will be a separate line from the tubing to the lease storage tanks through a low pressure separator. A commercial market will be obtained for the gas that will be produced through a separate line from the casing. The gas produced from the Yates section is classified as "sweet" gas and the oil produced from the Queen formation is slightly corrosive. There is no doubt that the two above described zones are each definite and distinct reservoirs.

To date, permission has been granted by the Commission to produce the two zones described above through a single well bore on three other wells in this immediate area. The attached plat shows the location of Gulf Holt "B" No. 1 with respect to the other dual completed wells in the immediate area.

Respectfully Submitted,

Paul C. Evans
District Engineer
Gulf Oil Corporation

PCE:lfr

Att'd.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice, pursuant to law, of the following public hearing to be held June 28, 1949, beginning at 10:00 A. M., on that day in the City of Santa Fe, New Mexico, in the Senate Chambers.

STATE OF NEW MEXICO GO:

All named parties in the following case,
and notice to the public:

Case 187

In the matter of the application of Carper Drilling Company, Incorporated, for an order granting permission to drill unorthodox location, designated as Well No. 9N, on that portion of its Simon "A" lease, described as the SW/4 of the SE/4 of Section 29, Township 17 South, Range 32 East, N.M.P.M. in the Maljamar Field of Lea County, New Mexico.

Case 188

In the matter of the application of Gulf Oil Corporation for an order to dually complete and produce from the Queen formation and the Yates formation from a single well bore in the J. R. Holt "B" No. 1, located 660' from east line and 1980' from south line of Section 36, Township 23 South, Range 36 East, Lea County, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on June 13, 1949.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

/s/ R.R. SPURRIER, SECRETARY

LEA COUNTY OPERATORS COMMITTEE
HOBBS, NEW MEXICO
June 14, 1949

LEGAL ADVERTISEMENTS

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STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
R. R. SPURRIER, Secretary
Pub: June 15, 1949.

*Case
198*

May 24, 1949

Mr. S. G. Sanderson, Manager of Production
Gulf Oil Corporation
P. O. Box 661
Tulsa 2, Oklahoma

Dear Mr. Sanderson:

This will acknowledge receipt of your application dated May 11, 1949.

The date for our next hearing has not been set, but we will notify you in regard to same, in the very near future.

Very truly yours,

R. R. Spurrier
Secretary and Director

RRS:bw