

BEFORE THE  
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO  
Santa Fe, New Mexico

March 19, 1958

TRANSCRIPT OF HEARING

Case 1401

DEARNLEY - MEIER & ASSOCIATES  
INCORPORATED  
GENERAL LAW REPORTERS  
ALBUQUERQUE - SANTE FE  
3-6691 2-2211

BEFORE THE  
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO  
Santa Fe, New Mexico

March 19, 1958

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IN THE MATTER OF: :

Application of Gulf Oil Corporation for a dual com- :  
pletion. Applicant, in the above-styled cause, :  
seeks an order authorizing the dual completion of :  
its T. R. Andrews Well No. 3 located 1980 feet :  
from the South and East lines of Section 32, Town- :  
ship 22 South, Range 38 East, Lea County, New :  
Mexico, in such a manner as to permit the produc- : Case  
tion of oil from an undesignated Paddock oil pool : 1401  
through tubing and to permit the production of gas :  
from the Tubb Gas Pool through tubing up to the :  
Paddock oil zone and thence through a crossover :  
assembly into the casing-tubing annulus to the :  
surface. :

-----:  
BEFORE: Mr. Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. PAYNE: Application of Gulf Oil Corporation for a dual  
completion.

MR. KASTLER: Bill Kastler of Roswell, appearing for Gulf  
Oil Corporation. Will the record show that Mr. Savage has been  
sworn in this case?

MR. NUTTER: Yes.

GERALD J. SAVAGE

called as a witness, having been first duly sworn, testified as  
follows:

DIRECT EXAMINATION

By MR. KASTLER:

Q Please state your name, position and where employed.

A Gerald J. Savage. I'm employed as a production geologist in Roswell, New Mexico by the Gulf Oil Corporation.

Q Have you previously qualified as an expert witness?

A Yes, I have.

Q Are you familiar with the area surrounding the Gulf T. R. Andrews Well No. 3?

A Yes, I am.

Q Have you prepared or caused to be prepared a location plat showing this general area?

A Yes, I have, and this exhibit I have labeled No. 1.

Q Referring to Exhibit No. 1, will you please state what is shown thereon?

A Specifically is shown on this plat the pertinent Gulf lease which is the East Half of Section 32, Township 22 South, Range 38 East, also is shown outlined in yellow the 160 acre gas proration unit which has been requested for this well, and the No. 3 T. R. Andrews encircled and marked in red.

Q Is that State, Federal or fee lease?

A To my understanding it is a State lease.

Q Does your location plat also show the surrounding operators?

A Yes, it does.

Q Will you describe the previous wells or all wells on the lease?

A Located 660 feet from the North line and 1980 feet from the East line of that Section 32 is the Gulf No. 1 T. R. Andrews which is a Drinkard oil producer, and located 1980 feet from the North and East lines of that same Section 32 is Gulf's No. 2, T. R. Andrews which is a Blinebry and Tubb gas-gas dual.

Q Will you now give the history of Well No. 3?

A Well, No. 3 was originally scheduled as a Tubb gas, Drinkard oil prospect. However, after drilling to a total depth of 7,100 feet, the Drinkard was found to be non-commercial due to a high gas-oil ratio and the well was then plugged back to test the Tubb zone. It was then scheduled as a Paddock oil, Tubb gas dual completion. The hole was plugged back to a depth of 6,500 feet and perforated in the Tubb zone.

On coil commission test on December 1st, 1957, it flowed 2,700,000 cubic feet of gas per day with a 225 pound back pressure. The Tubb zone was then packed off and the Paddock zone perforated through the interval 5,164 feet to 5,216 feet, and potentialled for 172 barrels of oil and two barrels of water without treatment.

Q Have you prepared or caused to be prepared a structure plat?

A Yes, sir, I have a structure plat of that immediate area which I have labeled Exhibit No. 2 in this case.

Q What formation is shown on the structure?

A This structure is contoured on top of the Tubb formation

with a contour interval of 25 feet.

Q Will you please explain what may be illustrated by this structure plat?

A This structure plat primarily shows the Tubb structure in the structure position of the No. 3 T. R. Andrews.

Q Do you have a log showing the formations penetrated and the intervals perforated?

A I have copies of the log on the T. R. Andrews No. 3 and it shows the formations penetrated and the zones perforated.

Q Was this prepared, or were the markings on there prepared, at your direction or by you or under your supervision?

A The pertinent information as applied to these logs was applied at my direction.

Q Specifically what information is shown on this log that is pertinent to this case?

A I have shown the top of the Glorietta formation at a depth of 5,220 feet and the perforated interval from 5,164 feet to 5,216 feet. This zone has been identified as part of the Paddock pay. This zone, on January 12, 1958, on a six hour Oil Conservation Commission test through two and three-eighths inch tubing and 1564 inch choke ~~flowed~~ 33 barrels of oil and .43 of a barrel of water, this extended to twenty-four hour is 172 barrels of oil and two barrels of water for the gas volume of 74,000 cubic feet of gas per day and GOR of 430.

Also shown is the depth of the Blinebry at 5,580 feet and the top of the Tubb formation at 6,073 feet which formation has been perforated with the fracture initiation technique at 7.015 minute Oil Conservation Commission test on December 1st, 1957, through two and three-eighths inch tubing and four inch orifice, this zone flowed 2,700,000 cubic feet of gas with 225 pound back pressure, with an estimated open flow of 2,900,000 cubic feet of gas per day.

MR. KASTLER: This completes the ~~questions~~ I have of our geological witness in this case, and I would like at this time to move to admit Exhibits 1, 2 and 3 in this case.

MR. NUTTER: Is there objection to the introduction of Gulf's Exhibits 1 through 3? If not they will be admitted.

#### CROSS EXAMINATION

By MR. NUTTER:

Q Now, Mr. Savage, what is the verbal limits of the Paddock Pool?

A I am not absolutely familiar with what the vertical limits are of the Paddock Pool. The Gulf Oil Corporation has defined that pay zone in their practice as the McKnight TI in the Basil ~~and~~ San Andres formation, but we got a verbal ruling from Mr. Randall Montgomery in Hobbs that that would be called the Paddock pay.

Q Is this well in the area which was included for the designation of a new pool designated as the South Paddock Pool?

A Yes.

Q At the hearing March 13th?

A I am not familiar with the hearing on March 13, but to my knowledge it is within that area designated as the South Paddock Oil Pool.

Q I believe that there was a proposed pool creation at that hearing calling for the creation of the South Paddock Pool to comprise the Southeast Quarter of Section 32, Township 22 South, Range 38 East. Would this well fall within that area?

A This well does fall within that area.

Q And the vertical limits of that pool were the Paddock formation. Is this well completed within the Paddock formation?

A The Paddock to my understanding is a pay designation within the Glorietta formation. But according to this verbal ruling that I mentioned previously from Mr. Montgomery that this zone, although it is Basil San Andres, would be considered to be part of the Paddock pay.

Q I see. The interval of perforations in the Tubb zone are within the vertical limits of the Tubb Gas Pool, is that correct?

A Yes, sir, they are.

MR. NUTTER: Are there any further questions of Mr. Savage? If not he may be excused.

(Witness excused.)

MR. KASTLER: Mr. Mace.

Will the record please show that Mr. Mace has been sworn?

CHARLES E. MACE

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. KASTLER:

Q Please state your name and position and where employed.

A Charles E. Mace, petroleum engineer with Gulf Oil Corporation, Roswell, New Mexico.

Q Are you familiar with this application to dually complete Gulf's T. R. Andrews Well No. 3?                   A Yes, I am.

Q Have you previously qualified as an expert witness before this Commission?   A Yes, I have.

Q Have you prepared or caused to be prepared a schematic diagram to explain the features of this installation?

A Yes, sir, I have.

Q Is this identified by being marked Exhibit No. 4?

A Yes, sir, it is.

Q Referring to Exhibit No. 4, will you please state what is shown there?

A Briefly Exhibit 4 shows that there is a 13-3/8" OD surface string at 266' with cement circulated intermediate casing string of 8-5/8" OD, cemented with 1400 sax; cement top at about 1200 feet below the surface behind the casing. 5-1/2" OD oil string set

7,099 feet, cemented with 850 sax, and the top of the cement may be found behind the casing at 3100 feet, the total depth of the well was 7100 feet, the plug back total depth is 6500 feet. The well is currently equipped as shown and that is there is a Baker packer at 5130 and a Baker packer at 6,000 feet. Then there is a 2-3/8" OD J-55 run into the well and seated through the two packers, and on the bottom of the tubing or near the bottom and seated in the upper Baker is the Baker Model "E" changeover flow tube.

The well is perforated as shown. The Paddock is perforated at 5164 to 5216, that would be combined between the two packers; the Tubb gas has been perforated at 6,052 to 6,281 as shown on the diagram, and it would be below the lower packer. The Tubb gas therefore enters the well bore below the lower packer as shown in green, comes up the tubing until it enters the changeover flow tube and switched to the casing annulus and flow to the surface through the annular. The Paddock oil will flow in between the two packers as shown in red into the changeover flow tube, and up the tubing to the surface.

Q To your knowledge has any installation of this type been previously approved by the New Mexico Oil Conservation Commission?

A One case to my knowledge, I'm sure of, there may be others, but there's one I'm sure of and that is the Gulf Oil Corporation Alice Paddock No. 5. It was Case D No. 1733, and by Order R-1121 on January 29, 1958 the installation was approved.

Q That was an identical to this?

A Yes, sir.

Q Can adequate tests be performed to insure the complete separation of the oil and gas zones and determine any leakage?

A Yes.

Q Will Gulf comply with the open test procedures and --

A (Interrupting) Yes.

Q Has Gulf previously filed application for an administrative approval of a 160 acre standard proration unit which is T. R. Andrews No. 3?

A The request has been so filed.

Q Has this approval been granted?

A To my knowledge the approval has not been granted, but it may have in the last few days.

Q Will you state what pipeline connections are proposed?

A The gas is under contract to the Permian Basin Pipeline Company. That is the Tubb gas and the South Paddock oil will be taken by the Texas Company and it is being trucked.

Q Do you know the reason why it's being trucked?

A Yes, sir. The Texas-New Mexico line said that the oil from the South Paddock was too sour and they requested not to take the oil.

Q Is this application in the interest of conservation of oil and gas and prevention of waste, in your opinion?

A Yes, sir.

Q In your opinion will it protect correlative rights?

A Yes, sir.

MR. KASTNER: Those are all the questions I have of this witness now. I would like to move to admit Exhibit No. 4.

MR. NUTTER: Without objection, Gulf's Exhibit 4 will be admitted.

CROSS EXAMINATION

By MR. NUTTER:

Q Mr. Mace, can the oil produced from the Paddock zone be pumped in the event the well fails to flow?

A Yes, sir, it can.

Q How low could a pump be set with this type of an installation?

A The pump could be set just right down to the dirt, or to the circulating valve, just above the changeover flow tube.

Q Do you anticipate that the levels will be such to the depletion of the well that a pump could be set to produce this well?

A Yes, sir, a pump could be set to produce this well.

MR. NUTTER: Any further questions of the witness? If not he may be excused.

(Witness excused.)

Does anyone have anything further they wish to offer in Case 1401? If not we will take the case under advisement and the

