

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

IN THE MATTER OF:  
CASE 1731

TRANSCRIPT OF HEARING

AUGUST 5, 1959

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IN THE MATTER OF:

CASE 1731 Application of Sunray Mid-Continent Oil Com-  
pany for an oil-oil dual completion. Appli-  
cant, in the above-styled cause, seeks an  
order authorizing the dual completion of its  
D. Hardy Well No. 2, located 1980 feet from  
the North and East lines of Section 29, Town-  
ship 21 South, Range 37 East, Lea County, New-  
Mexico, in such a manner as to permit the  
production of oil from the Paddock Pool and  
the production of oil from the Drinkard Pool  
through parallel strings of tubing.

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BEFORE:

Elvis A. Utz, Examiner.

T R A N S C R I P T    O F    P R O C E E D I N G S

MR. UTZ: Next case on the docket will be Case 1731.

MR. PAYNE: Case 1731. Application of Sunray Mid-Con-  
tinent Oil Company for an oil-oil dual completion.

MR. WHITE: If the Examiner please, Charles White of  
Gilbert, White & Gilbert, Santa Fe, New Mexico, appearing on behalf  
of the applicant. I have associated with me Mr. Bill Loar, attorney  
from Tulsa, Oklahoma.

MR. LOAR: If the Examiner please, we will have one  
witness, Mr. James Northcutt.

(Witness sworn)

MR. UTZ: Any other appearances in this case?

JAMES J. NORTHCUTT,

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

DIRECT EXAMINATION

BY MR. LOAR:

Q Will you please state your name and occupation?

A James J. Northcutt, petroleum engineer, Sunray Mid-Continent Oil Company, Hobbs, New Mexico.

Q Have you testified before the New Mexico Oil Conservation Commission as a petroleum engineer previously?

A No, sir.

Q Would you briefly state your educational, professional experience?

A I have a B.S. degree and M.S. degree in petroleum engineering from the University of Oklahoma; approximately two years experience.

MR. LOAR: Are his qualifications acceptable?

MR. UTZ: Yes, sir, they are. Proceed.

Q (By Mr. Loar) This is the application of Sunray Mid-Continent Oil Company for an order permitting the oil completion of its D. Hardy No. 2 as an oil well in the Drinkard Pool and an oil well in the Paddock Pool in Lea County, New Mexico.

(Thereupon, Sunray Mid-Continent's Exhibit No. 1 was marked for identification.)

Would you please refer to Exhibit No. 1 and briefly state what that is and what that shows?

A Exhibit No. 1 is a plat showing Sunray's acreage in the S/2 of the NE/4 of Section 29, Township 21 South, Range 37 East. The proposed well for dual completion has an arrow pointing to -- it is the D. Hardy No. 2. The plat also shows all Paddock and Drinkard wells in the vicinity of the D. Hardy Lease, and also shown are the operators and their addresses in the vicinity of the D. Hardy Lease.

Q Now, what is the location of the D. Hardy No. 2?

A The D. Hardy No. 2 is located 1980 feet from the North line and 1980 feet from the East line of Section 29.

Q Mr. Northcutt, as far as you know, is this the first request for dual completion between the Drinkard Pool and the Paddock Pool?

A Yes, sir.

Q That is the reason for this hearing, is it not?

A Yes, sir.

(Thereupon, Sunray Mid-Continent's Exhibit No. 2 was marked for identification.)

Q Would you please refer to Exhibit No. 2 and explain how the well is presently completed?

A Exhibit No. 2 is a schematic diagram of the proposed dual completion in the Drinkard and Paddock Oil Pools in Lea County, New Mexico. The well was originally completed February the

12th, 1947 in the Drinkard Pool by an open hole completion. The 13 3/8 inch surfacing was set at 300 feet and cemented with 300 sacks, circulated to the surface. 9 5/8 inch OD casing was set at 2,838 feet, cemented with 1,000 sacks, circulated to the surface. The 7-inch production casing was set at 6,530 feet with 250 sacks; the calculated top of the cement at 80 percent fillup was at 5,057 feet. The plug-back total depth of the well was --

Q Excuse me. Would this calculated top of the fillup bring the cement up above both the Drinkard and the Paddock?

A Yes, but it is proposed on this dual completion to also squeeze cement at 5,140 feet and 5,166 feet to assure complete shut-off of the Paddock zone.

Q Thank you, sir.

A On the dual completion, it is proposed to set a permanent type production packer at approximately 6500 feet. The well would be produced through two parallel strings of 2 3/8 inch tubing. The tubing will be set at, in the Drinkard zone, approximately 6505. The tubing, the bottom of the tubing in the proposed Paddock zone would be at 5150. The proposed Paddock perforations are from 5150 to 5160. And it is proposed after perforating this section to treat that zone with approximately 500 gallons of mud acid.

Q Will the method of completion which you have proposed keep the hydrocarbons separated in the well bore?

A Yes, sir.

Q Were all of the offset operators to this location noti-

fied?

A Yes, sir.

Q Did you receive any protest?

A No.

Q Do you have an electric log on this well?

A No, sir. It is proposed to run a radioactive log and submit it to the Commission fifteen days after completion of the well.

Q Are there any other Paddock producers in the vicinity of this well?

A Yes, sir, there are three Paddock producers approximately three-quarters of a mile -- pardon me -- approximately half a mile to the northwest of this proposed location.

Q Could you give us the sections which they are in?

A There are -- Texas Gas Company Henderson Nos. 2 and 5 are located in the NE/4 of Section 30. The Gulf D. Hardy No. 4 -- I'm not sure of that Section, I don't have it marked here. It is located diagonally offset to the Texas Gas Company's Henderson No. 2.

Q All right, sir. Is the Drinkard formation, which is in this well, and the Paddock formation in this well, both within the defined limits of the Paddock Pool and the Drinkard Pool?

A Yes, sir.

Q Both horizontal and vertical?

A I'm not sure on the vertical. On the proposed Paddock,

it is definitely in the horizontal limits of the Paddock Pool.

Q All right, sir. Approximately what interval separates the Drinkard and the Paddock in this well?

A Approximately 1400 feet.

Q Do you believe that this proposed dual completion is an efficient and effective way to produce these two zones?

A Yes, sir.

Q Were Exhibits 1 and 2 prepared under your direction or supervision?

A Yes, sir.

MR. LOAR: We request these be received.

MR. UTZ: Without objection, they will be received.

CROSS EXAMINATION

BY MR. UTZ:

Q Did you state the type of packer that you were going to separate these zones with?

A A permanent type separation packer.

Q You don't know what make?

A No, sir.

Q What choices do you have?

A It probably will be a Baker Model "D," sir.

MR. PAYNE: Giberson also make a permanent type packer, don't they?

A I believe they do, sir. We have on our dual completions in the past used mainly Baker.

Q (By Mr. Utz) Is there any other type of permanent type packer that you may use?

A Not that I can think of right at the present.

Q You don't have any pressure information on these zones?

A Yes, sir. The Paddock pressure, bottom hole pressure at the present time is 926 pounds, and the information from the Texas Company's Henderson No. 2, which is completed in the Paddock in the NE of the NE of Section 30, is 1,882 pounds.

Q That's in the Paddock?

A Yes, sir.

Q The Drinkard was 926?

A Yes, sir.

Q What was it --

A 1,882 pounds.

Q Do you have any idea about gravity?

A Yes, sir. The gravity of the Drinkard zone is approximately 35 degrees API. The gravity of the Paddock zone is approximately 38 degrees API.

Q Is the Drinkard a sour crude?

A No, sir, we consider the Drinkard in this area to be a sweet crude.

Q Ranging from sweet to intermediate to sour in the Drinkard?

A Yes, sir. The Paddock in this area is considered to be a sour crude.

Q You propose to take the required packer leakage test --

A Yes, sir.

Q -- after completion of this well?

A Yes, sir.

MR. UTZ: Are there any other questions of the witness?

MR. PAYNE: No questions.

MR. UTZ: If not, the witness may be excused.

(Witness excused)

MR. UTZ: Any other statements to be made in this case?

If not, the case will be taken under advisement.

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Examiner hearing of Case No. 1231,  
 heard by me on August 19, 1959  
 \_\_\_\_\_ Examiner  
 New Mexico Oil Conservation Commission

