BEFORE THE OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO April 25, 1962

IN THE MATTER OF:

Application of G. W. Strake for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its L Bow Federal Well No. 6 located in Unit I of Section 25, Township 19 South, Range 30 East, Eddy County, New Mexico, as a dual completion (conventional) in the North Hackberry-Yates and Hackberry-Seven Rivers Pools with the production of oil from both formations to be through parallel strings of 2 1/16-inch tubing.

CASE

2543

BEFORE:

Elivs A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 2543.

MR. MORRIS: Application of G. w. Strake for a dual completion, Eddy County, New Mexico.

MR. BRATTON: Howard Bratton on behalf of the applicant.

We have one witness.

(Witness sworn)

MR. UTZ: Are there other appearances in this case?



(Whereupon, Applicant's Exhibits 1 through 4 marked for identification)

MR. UTZ: You may proceed.

MR. BRATTON: If the Examiner please, this case comes on for hearing as a result of a recent case, I believe, before yourself, Case Number 2501, in which Order R-2199 was entered creating a new pool designated as the Hackberry-Seven Rivers Pool As a result of that, we have a proposed dual completion in the North Hackberry-Yates and the Hackberry-Seven Rivers. I believe the reason thematter comes on for hearing before the Examiner, rather than the administrative hearing, is that this is the first completion to these two formations since the pool was authorized.

MR. UTZ: That's correct.

JERRY W. WARD, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

- Q Will you state your name and by whom you are employed and what capacity?
- A Jerry W. Ward. I'm a petroleum engineer for G. W. Strake of Houston, Texas.
- Q Are you familiar with the area under consideration and the well in question?



- Yes, sir. Α
- And the matters contained in the application in this case?
 - Yes, sir.
- Have you previously testified before this Commission as an expert witness?
 - I have.
- Will you refer to your Exhibit Number 1 and explain what that is?
- Exhibit Number 1 is a well location map which shows the location of the well that is proposed for dual completion, the LeBow-Federal No. 6. We have circled the well.
- That well is in the Northeast of the Southeast of 0 Section 25, 19 South, 30 East.
 - That's correct.
- That location was included in the Hackberry-Seven Rivers Pool by Order Number R-2199?
 - That's correct.
- Does that show the other completions in the area and the formations in which they're completed?
- It does not show the formation that each well is Α completed in. However, all the wells except two others are Yates producers and wells Number 4 and 7 produce from the Seven Rivers exclusively.





- Q There's no well dually completed in the two formations?
- A No, sir.
- Q Refer then to your Exhibit Number 2, Mr. Ward, explain what that is.

A Exhibit 2 is the acoustic log of the well with the gamma ray and the acoustic curve, on which we have indicated the perforated intervals in red, and typewritten to the right hand side of the red marker we have indicated the name of the formation and the perforations, On the log we have shaded an area at about 2,000 feet which we previously testified was a dense streak between these two reservoirs and that has been shaded to coincide with cross sections which were previously submitted to the Commission.

- Q Mr. Ward, the top of the Yates is roughly where above perforations there?
 - A It's approximately 1920. The geological top.
- Q Then the top of the Seven Rivers in this well would be in the area of your shaded area?
- A Well, the actual Seven Rivers itself, the shaded area we have described previously as being a dense streak of the dense streak which separates the reservoirs, however the Seven Rivers actual top comes in somewhere around 2110.
- Q The Commission Order did not designate vertical limits?

A No. sir.



FARMINGTON, N. M. PHONE 325-1182 Q But the two completions are in, the proposed completions are in the Seven Rivers and in the Yates?

A Yes, sir.

Q Refer then to your Exhibit Number 3, Mr. Ward.

Exhibit 3 is a table of well data which shows the location of the well and the casing program for surface casing and oil string. Most of this information will be shown on the Exhibit 4 which we will discuss later. Some of the information which will not be on that Exhibit would be the well tests shown on the second page. The most recent test we have on the Yates sand is indicated, it's a 24 hour test, with a GOR or 219 and bottom hole pressure of 410. The oil gravity is 31.4 degrees API. The Seven Rivers is not presently producing in this well, so we don't have a production test, but we know that it is productive because we swabbed it on an initial completion. However, we have taken data from well Number 4, a Seven Rivers producer, and we assume that this well will have about the same date which we show, a gas-oil ratio of zero, primarily because it is in a volume too small to measure, and an oil gravity of 18.1 degrees API. A bottom hole pressure of 576 pounds.

Q Your well No. 4 is your direct north offset producing in the Seven Rivers?

A Yes, sir.

Q Turn to your Exhibit Number 4, Mr. Ward, the actual installation you propose. Explain what it reflects.



A It is a diagram of our proposed mechanic installation, it shows the surface casing at 8-5/8, set at 544 feet. It has been written that the cement was circulated to the surface behind the surface pipe. We have indicated the Yates sand perforation from 1937 to 1953 feet, we have shown the proposed location of a permanent type production packer to be at 2,090 feet, we show the Seven Rivers dolomite to be perforated from 2116 to 26 feet, and our long string or oil string surface casing $5-\frac{1}{2}$ inch set at 2172 feet; we have also indicated the cement program which was used to set that casing and the temperature survey indicated the top to be 520 feet from the surface which we would like to point out is about 25 feet up inside the surface pipe.

Q So you have got cement to surface, you might say?

A That's correct. We also indicate the size, or the proposed size of the tubing strings to be 2 and 1/16 inch OD integral joint tubing, both strings will be that size.

Q Do you have a retrievable packer in here at the moment?

A It's a retrievable type packer, it's a bridge plug, retrievable bridge plug which was set after the Seven Rivers was swab tested.

- Q Do you anticipate any trouble in pumping?
- A No, we intend to run inch and a quarter pumps and



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5/8 inch sucker rod. At that depth that would certainly be adequate.

- Q Is there anything unusual about this dual completion, Mr. Ward?
 - A No, sir.
- Q Any problems you would anticipate in connection with it?
 - A No, sir.
- Q Do you propose to take the packer leakage test required by the Commission and furnish the information as required:
 - A Yes, sir.
- Q Is there anything else you care to say in connection with this application?
 - A No, sir.
 - Q Did you prepare Exhibit 1 through 4?
 - A I did.

MR. BRATTON: We will offer Exhibits 1 through 4 in evidence.

MR. UTZ: Without objection Exhibits 1 through 4 will be entered into the record of this case.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Ward, both of these completions are presently complete in the horizontal limits of these difined pools?

A In what?



Q Presently completed in the horizontal limits of these defined pools?

> Α Yes, sir.

> > Any questions of the witness? MR. UTZ:

No, sir. MR. BRATTON:

The witness may be excused. MR. UTZ:

(Witness excused)

Are there any statements in this case? The case will be taken under advisement.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M. PHONE 325-1182

STATE OF NEW MEXICO COUNTY OF BERNALILLO

I. ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

DATED this 25th day of April, 1962, in the City of Albuquerque. County of Bernalillo, State of New Mexico.

My Commission Expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2543,

OTARY

PUBLIC

, Examiner New Mexico Oil Conservation Commission

