BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1688

TRANSCRIPT OF HEARING

JUNE 3, 1959

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BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO JUNE 3,1959

IN THE MATTER OF:

CASE 1688 Application of Anderson-Prichard Oil Corpor-: ation for a dual completion. Applicant, in: the above-styled cause, seeks an order: authorizing it to dually complete its State: "A-28" Well No. 1, located in the SE/4 NE/4: Section 28, Township 26 South, Range 37: East, Lea County, New Mexico, in such a manner as to produce gas from the Yates formation in the Rhodes Storage Are, Jalmat Gas: Pool, through the casing-tubing annulus, and to produce oil from the Seven Rivers formation through tubing.

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: Take next Case 1688.

MR. PAYNE: Case 1688. Application of Anderson-Prichard Oil Corporation for a dual completion.

MR. KELLAHIN: Jason Kellahin of Kellahin & Fox, Santa Fe, New Mexico, representing the applicant. We have two witnesses Mr. Manry and Mr. Skrabacz.

(Witnesses sworn)

RICHARD W. MANRY,

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

follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Would you state your name, please?
- A Richard W. Manry.
- Q By whom are you employed and in what position?
- A Anderson-Prichard Oil Corporation, district engineer West Texas and Eastern New Mexico.
- Q Mr. Manry, what education have you had as a petroleum engineer?
 - A B. S. degree, petroleum engineer, Texas Tech., 1950.
 - Q And what has been your employment since that time?
- A Three years Stanolin Oil & Gas, West Texas and Pan Handle.
 - Q In what position?
- A Petroleum engineer. And six years with Anderson-Prichard as district engineer.
 - Q And that is your present employment?
 - A Present employment.
 - MR. KELLAHIN: Are the witness qualifications acceptable?
 - MR. NUTTER: Yes. Please proceed.
- Q Mr. Manry, are you familiar with the application in Case 1688?
 - A Yes, I am.
 - Q Will you state briefly what is proposed under that appli-

cation?

A Anderson-Prichard proposes to dually complete in the Yates gas sand and Rhodes Seven Rivers on our State "A-28" No. 1 located 1980 feet from the North line, 660 feet from the East line. Section 28, Township 26 South, Range 37 East, Lea County, New Mexico.

Q Now, referring to what has been marked as Exhibit No. 1, will you state what that shows?

A This plat, Exhibit 1, shows the acreage and location of the proposed dual completion, consisting of 80-acre State tract and 80-acre Federal tract.

- Q Does it show other wells completed in the area?
- A It shows offsetting wells and surrounding wells completed in the Rhodes area. In the Jalmat area.
- Q Does it likewise show the Cities Service Well which was completed as a dual completion?
 - A This does in Section 32.
 - Q How is that well marked?
- A Cities Service "0", State "0" No. 2, Section 32, 26 South, 37 East.
- Q Now, referring to what has been marked as Exhibit No. 2, would you state what that is?
 - A It's a diagramatic sketch of the proposed dual completion.
- Q Before we go into a description of the proposed dual completion, are you familiar with the history of the subject well?

- A Yes, I am.
- Q Would you briefly outline to the Commission the completion information and the present status of that well?

A The State "A-28" I was completed in March, 1943 on open hole section 3139 to 3323, producing from the Rhodes! Seven Rivers oil. In 1951 due to a cave-in of the hole, the hole section, pea gravel was dumped in the well which gave it a plug back total depth of 3275 which is the present TD. There is no cement cap or permanent cap put on top of the pea gravel. The well presently produces 5 to 10 barrels of oil per day, flowing, and we have approximately 25 to 30 pounds flowing pressure. Gas-oil ratio is approximately 4,000 to 28,000 to 1. Casing was, five and a half casing was set at 3139, cemented with 650 sacks, no temperature survey was run on the well. However, it was calculated to be circulated.

- Q Now, at the time the well was completed, was a log run?
- A No, there were no logs, not other than sample logs.
- Q Other than sample logs?
- A Other than sample logs.
- Q In connection with this dual completion, will you make a log of the well?
 - A Yes, we will run a gamma ray neutron.
 - Q And will you file that log with the Commission?
 - A Yes, we will.
 - Q. Now, referring to the Exhibit No. 2, would you outline

what is proposed to be done in connection with the dual completions?

A We propose to set a permanent type production packer approximately 3100 feet for separation between the Yates gas zone which we estimate we will perforate from 2960 to 3,090. That is our preliminary estimates of the sample logs. However, they will be redetermined by gamma ray neutron logs, and run two and three eighths tubing and set through the packer, produce the Seven Rivers oil through the tubing, and the Yates gas zone through the annulus casing tubing annulus.

- Q Now, will that type of completion achieve complete separation between the two producing horizons?
 - A In my opinion, it will.
- Q Did you make the necessary packer leakage tests required by this Commission?
 - A Yes.
- Q Is it a type of completion which has heretofore been approved by the Commission?
 - A Yes, it has.
- Q Mr. Manry, are you familiar with the area involved in this application?
 - A Yes, I am.
- Q Are you aware of the fact that the area has been deleted from the Jalmat Gas Pool by virtue of Order R-9520?
 - A Yes, I am.
 - Q What would you propose as to the proration rules and

development rules for the gas zone?

A I propose that they be included in the Jalmat gas zone due to the order affecting Olson's Well, which is also in Section 28, producing from the same section in the Yates gas.

- Q Now, how is your oil in the well carried on the proration schedule at the present time?
 - A It is carried as a Rhodes' Seven Rivers oil.
- Q Are you familiar with the producing horizons aside from the testimony which will be given later? You referred to this as Rhodes' Seven Rivers, and it is so designated on the application, is that correct?

A Yes, sir. This section is both included in and covered by the Jalmat and Rhodes' rules; vertical and horizontal limits.

- Q Both vertical and horizontal, is that correct?
- A Yes.
- Q It is within the Rhodes area, is that correct?
- A That's right.
- Q The Rhodes Storage Area?
- A Right.
- Q But is this area included in the unit, the Rhodes Storage?
- A No, it is not included in the Storage area.
- Q And no arrangement has been made with you in regard to gas storage in this area, is that correct?
 - A That's right.
 - Q Now, can you give us the pressures on the two horizons

which you propose to complete?

A From offset information, we would expect to approximately 1173 pounds bottom hole pressure in the Yates gas, and our estimate of the Seven Rivers is approximately 200 to 300 pounds.

Q Do you anticipate any fluids in the gas zone?

A Offset information indicates a very small amount of fluids However, we are approximately forty feet higher and could possibly not have any fluids. However, there will be -- should be in the order of approximately two to three barrels per million.

Q Now, I believe you already gave the gas-oil ration on the oil zone, did you not?

A Yes.

Q Were Exhibits 1 and 2 prepared by you or under your direct supervision?

A Prepared under my supervision.

MR. KELLAHIN: At this time we would like to offer Exhibits 1 and 2.

MR. NUTTER: Without objection, Anderson-Prichard's Exhibits 1 and 2 will be admitted in evidence.

- Q Do you have anything to add to this, Mr. Manry?
- A No, it is a normal dual application.
- Q In your opinion, is this in the interest of conservation and the prevention of waste?
 - A Yes, it is.
 - Q Is it an economical procedure to make the dual as proposed?

A Yes.

MR. KELLAHIN: That's all the questions I have.

MR. NUTTER: Mr. Kellahin, what area will the other witness cover?

MR. KELLAHIN: He will cover the formation involved in this by reference to the sample log and adjacent information, if necessary.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Manry, once this application is approved and you dually complete this well, what acreage will you dedicate to it for the Yates gas?

A We would dedicate the 80 acres designated as State lease and also the Federal. There is 80 acres in this Federal designated as 80.

Q You would communitize and --

A Yes. We had that before the U.S.G.S and State Land Office. The State Land Office advised us that we had to have the dual completion approved by the Commission, and also prove that we have the Yates gas production prior to their agreement to the communitization.

Q Well now, this Well No. 2 there in the southwest of the northeast of 28 is indicated as a dry hole. Did it penetrate the Yates formation?

A Yes, it did.

Q Was it productive of gas in the Yates?

A At the time that this well was drilled, it was drilled as a Seven Rivers Well in the Rhodes. We have no information -- the records are very sketchy on what we have recovered in that hole.

Q The record on your No. 1 Well indicated that there was gas in that well, didn't it?

A According to our sample log, actually development on this Olson Well gave us our lead. There is no test run in the Yates section, according to our records.

Q Now, while this acreage is within the area covered by the Rhodes Storage project unit agreement, this acreage was never committed to that unit agreement, is that correct?

A Yes, sir.

Q What did you base this expected 1173 pounds of bottom hole pressure on, Mr. Manry?

A From Olson's Wells, which is also -- which offsets the Federal acreage to the left, the 1-B Gregory.

Q Is that the well that was recently approved by this Commission as a dual completion?

A No, as a Yates gas in the Jalmat.

Q And you would propose that the Jalmat rules be extended to cover this well, if this dual completion is authorized and able to produce this Yates gas?

A Yes, sir.

MR. PAYNE: Is this well completed within the vertical and horizontal limits of the Jalmat Gas Pool?

A Yes, sir.

MR. PAYNE: Even though deleted from Order R-520, from the rules?

A Yes.

Q (By Mr. Nutter) Now, Mr. Manry, you stated that your present completion there in the Seven Rivers has an oil production of from 5 to 10 barrels per day, flowing on 25 to 30 pounds pressure, and a gas-oil ratio of from 14,000 to 28,000?

A Yes.

Q What is the cause for that wide variation in GOR?

A Well, that was over a period of time, the tests that we obtained on it. We obtained penalties up and down on the thing.

- Q What is the current GOR on the well?
- A The last one we took was quoted as 28,000 to 1.
- Q What is the criterion for classification as a gas well or an oil well in the Jalmat Gas Pool?
 - A A hundred thousand to one.
- Q So that the gas-oil ratio in this well is well within the limitation for an oil well, is that correct?

A Yes, sir.

QUESTIONS BY MR. PAYNE:

Q You are aware, are you not, that you would also have to get a non-standard unit approved in the Jalmat to dedicate to this

well?

A Yes, sir. That will be after we complete the well and the present communitization between Federal and State acreage.

MR. NUTTER: Any further questions of Mr. Manry? He may be excused.

(Witness excused)

CHESTER SKRABACZ,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Would you state your name, please?
- A My name is Chester Skrabacz.
- Q By whom are you employed?
- A I am employed presently by Anderson-Prichard Corporation as a geologist in the New Mexico area.
 - Q What education have you had as a geologist?
- A I graduated in 1947 with a degree in geology from St. Joseph's College, Indiana.
 - Q What has been your employment since that date?
- A I have been employed by Amerada Oil Corporation, oil company from September, 1947 to January *48. And I worked for Standard Oil Company of Texas from January, *48 to January *51.

 And then from January *51 to my present time, I have been working with Anderson-Prichard Oil Corporation.

- Q Have you worked in the area involved in this application?
- A Yes, I have.
- Q About what period of time?
- A Well, nearly all of this time.
- Q Have you made a study of the Anderson-Prichard Well involved in this application?
 - A Yes, I have.
 - MR. KELLAHIN: Are the witness qualifications acceptable?
 MR. NUTTER: Yes, sir, they are. Please proceed.
- Q Now, referring to what has been marked as Exhibit No. 3, will you state what that shows?

A This Exhibit shows a sample log of the Anderson-Prichard State "A" No. 1, since no radioactive log was run at the time, and shows the completion of the well, the casing, the oil zone, and the proposed gas completion zone. There is approximately a hundred and seventy feet of separation from the proposed perforations of the gas and the present producing oil section down in the Seven Rivers section. In comparison, we had a sonic log or gamma sonic log on the Cities Service No. 2 State "O," which is located 7700 feet southwest of the Anderson-Prichard Well, and it shows zones of perforations in the Yates at 3,085 and 3,110; a potential for three million cubic feet of gas per day, and another zone at 3212 to 3238, which flowed a hundred and fifteen barrels of oil per day. That was completed 9/18/58, and it was just a comparison chart.

Q Now, in your opinion, and based upon the information

available to you, is there complete separation between the presently producing oil zone and the gas zone which is proposed to be produced?

- A Yes, I believe there is separation.
- Q Is there any possibility of that being a gas cap situation --
- A No, sir.
- Q -- in your opinion?
- A No.
- Q Now, the application in this case, and the Exhibits and some of the testimony has referred to the completion of the oil zone in the Seven Rivers. Have you any comment on that, Mr. Skrabacz?

A Yes. We have been carrying that as a Seven Rivers oil zone ever since its completion. However, in 1954 the Oil and Gas Commission had put out a stratigraphic nomenclature. Chart No. 3 covers this area, and they designate the top of the Seven Rivers at the base of this producing zone. So, we may go on record as saying that we will complete this well, the "A-28" No. 2 -- No. 1 I'm sorry, as an upper Yates gas well and lower Yates oil well, just to clarify the nomenclature.

- Q As a matter of fact, are they, in your opinion, two separate horizons?
- A Definitely, with separation in between of 170 feet of dolomite and sand and other impervious rocks.
 - Q And do both of the zones fall within the presently defined

limits of the Jalmat Gas Pool?

- A They do.
- Q Do both of them fall within the presently defined limits of the Rhodes Oil Pool?
 - A Likewise, they do.
- Q So, in effect, you could say that you have a Rhodes oil well and a Jalmat gas well, --
 - A That's right.
 - Q -- or a Jalmat gas well and a Rhodes oil well?
 - A Oil well.
- Q Was Exhibit No. 3 prepared by you or under your supervision?
 - A It was prepared by me.
- MR. KELLAHIN: At this time we would like to offer in evidence Exhibit No. 3.
- MR. NUTTER: Without objection, it will be entered in evidence.
 - MR. KELLAHIN: That's all the questions we have.
 - MR. NUTTER: Any questions of Mr. Skrabacz?

CROSS EXAMINATION

BY MR. NUTTER:

- Q Mr. Skrabacz, does this zone of perforations in the Cities
 Service Well correspond to the two proposed perforated intervals
 in your well?
 - A I would say not exactly, but it is in the range, as you

can see, that our oil zone is probably just a little lower in the whole section.

Q Well, now, their oil zone is in the lower Yates?

A Correct, what we would call our lower Yates too, due to the 1958 nomenclature. We were not aware of that particular change. In fact, our well is still carried as a Seven Rivers Well by the Commission.

Q Now, is this the Cities Service that is down in Section 32 of Exhibit No. 1?

A Correct.

Q Is that oil zone carried in the -- by the Commission as a Rhodes oil well or what?

A Well, no, that is in the --

MR. MANRY: It is called lower Yates oil.

- Q Is it assigned to any pool?
- A It is in the Jalmat.
- Q And it is also an oil well in the Jalmat?
- A Correct.

Q And you have proposed an upper Yates gas well in the Jalmat with the Jalmat rules covering that well and a lower Yates oil well in the Rhodes, is that correct?

A Yes, sir.

MR. KELLAHIN: If the Commission please, we have no ob-

jection whether it is carried as a Jalmat oil well or a Rhodes oil well.

- Q It is presently carried in the Rhodes Pool, is it not?
- A That's right. It is presently carried there. Rhodes oil is the predominant production in the area.
- Q Now, I missed some of those tops and bottoms of perforations on the Cities Service, and I can't read them on this Exhibit.
 Could you repeat those?
- A Well, the Cities Service upper perforations were from 3085 to 3110, and the lower producing oil zone is from 3212 to 3238.
- Q I think I have your perforations; you are proposing to perforate the upper Yates from 2950 to 3900?
 - A More or less.
- Q What is the zone of storage in the Rhodes Storage area? Is it the equivalent zone that you propose to perforate in this well?
- A No, the storage is in the Seven Rivers where we are proposing the oil.
- Q I see. There is no gas storage in the Yates, then, in the Rhodes Storage area?
 - A No, sir.
- MR. NUTTER: Any further questions of Mr. Skrabacz? He may be excused.

(Witness excused)

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1688? We will take the case under advisement, and the hearing is recessed.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 13 day of 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1959.

New Mexico Oil Conservation Commission