

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

November 29, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Cities Service Oil Company
for a triple completion, Lea County, New
Mexico. Applicant, in the above-styled
cause, seeks permission to complete its
Hodges "B" Well No. 3, located in Unit L
of Section 1, Township 25 South, Range 37
East, Lea County, New Mexico, as a triple
completion (conventional) in undesignated
Blinebry and Drinkard pools and in the
Fusselman formation adjacent to the North
Justis-Fusselman pool, with the production
of oil from the Blinebry and Drinkard zones
to be through parallel strings of 2 1/16-
inch tubing and the production of oil from
the Fusselman zone to be through a parallel
string of 2 3/8-inch tubing.

CASE NO.
2435

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

EXAMINER NUTTER: We will call Case No. 2435.

MR. WHITFIELD: Application of Cities Service Oil Com-
pany for a triple completion, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, represent-
ing the Applicant. We have one witness.

(Witness sworn.)

E. F. MOTTER,



called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please.

A E. F. Motter.

Q By whom are you employed and in what position?

A Cities Service Petroleum Company, assistant division engineer.

Q Have you previously testified before this Oil Conservation Commission of New Mexico and made your qualifications a matter of record?

A Yes.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, sir; please proceed.

Q (by Mr. Kellahin) Are you familiar with the application of Cities Service Petroleum Corporation in Case No. 2435?

A Yes, I am.

Q Would you state briefly what is proposed by Cities Service?

A We propose to triply complete our Hodges "B" Well No. 3 in the Blinebry-Drinkard Pools and in the Fusselman Formation in the North Justis-Fusselman Pool, Lea County, New Mexico.

Q Now, you have a plat showing the area involved?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691



A Yes.

(Applicant's Exhibit No. 1
marked.)

A This plat has the Cities Service Hodges "B" lease outlined in yellow and the significant Well No. 3 has a red circle around it, which is located 1880 feet from the south line, 330 feet from the west line of Section 1, Township 25 South, Range 37 East. This plat also shows numerous other completions in the North Justis Pool designated by the code down on the bottom. We have recently completed the Hodges B-2 which was dually in the Ellenberger-McKee Formation.

Q Is any of this area included within the boundaries of the established pool?

A No, not to my knowledge.

(Applicant's Exhibit No. 2
marked.)

Q (by Mr. Kellahin) Referring to what has been marked Exhibit No. 2, would you identify that exhibit and discuss the information shown thereon?

A Yes. We ought to make the radioactive log Exhibit No. 2 since that comes first. On the Hodges B-2 which is being drilled 100 feet north of the Hodges B-3, I feel there will be very little difference on the log. On the other Hodges B-3, that is currently being drilled below about 3500 feet. We will call that Exhibit No. 3. All the tops are marked and also our

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691



called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please.

A E. F. Motter.

Q By whom are you employed and in what position?

A Cities Service Petroleum Company, assistant division engineer.

Q Have you previously testified before this Oil Conservation Commission of New Mexico and made your qualifications a matter of record?

A Yes.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, sir; please proceed.

Q (by Mr. Kellahin) Are you familiar with the application of Cities Service Petroleum Corporation in Case No. 2435?

A Yes, I am.

Q Would you state briefly what is proposed by Cities Service?

A We propose to triply complete our Hodges "B" Well No. 3 in the Blinebry-Drinkard Pools and in the Fusselman Formation in the North Justis-Fusselman Pool, Lea County, New Mexico.

Q Now, you have a plat showing the area involved?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691



A Yes.

(Applicant's Exhibit No. 1
marked.)

A This plat has the Cities Service Hodges "B" lease outlined in yellow and the significant Well No. 3 has a red circle around it, which is located 1880 feet from the south line, 330 feet from the west line of Section 1, Township 25 South, Range 37 East. This plat also shows numerous other completions in the North Justis Pool designated by the code down on the bottom. We have recently completed the Hodges B-2 which was dualled in the Ellenberger-McKee Formation.

Q Is any of this area included within the boundaries of the established pool?

A No, not to my knowledge.

(Applicant's Exhibit No. 2
marked.)

Q (by Mr. Kellahin) Referring to what has been marked Exhibit No. 2, would you identify that exhibit and discuss the information shown thereon?

A Yes. We ought to make the radioactive log Exhibit No. 2 since that comes first. On the Hodges B-2 which is being drilled 100 feet north of the Hodges B-3, I feel there will be very little difference on the log. On the other Hodges B-3, that is currently being drilled below about 3500 feet. We will call that Exhibit No. 3. All the tops are marked and also our

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182ALBUQUERQUE, N. M.
PHONE 243-6691

proposed perforations are marked on that log.

Q What formation top do you show on the log?

A Starting from the top down, we have a Blinebry at 5051; a Tubb at 5677; the Drinkard at 5950; and the Fusselman at 6918.

Q Does the log likewise show your proposed perforations?

A Yes.

Q Does it show production on the Drinkard zone?

A Yes, sir, it does.

Q It also shows perforations in what you have identified as the Tubb on the exhibit?

A Yes, that is correct. We have proposed some perforation at 5696 through 5702 and 5709 through 20. I have cross hatched those perforations in red. We would propose to open these up with the Drinkard formation as has been done in the Justis Pool proper.

Q That has been done in the Justis, is that correct?

A Yes, it has.

Q That is the pool immediately adjacent to this area, is that right?

A To the south. We feel that this is a salvage zone. We would like to get what all we can out of it by co-mingling it with the Drinkard since the gravities are very similar and the pressures are similar.

Q Do you have a diagrammatic sketch of the proposed dual completion?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182ALBUQUERQUE, N. M.
PHONE 243-6691

A Yes, sir, I do. That is Exhibit No. 3.

Q A triple completion.

A Yes. I might run through our procedure that we will follow to triple complete this well. We will perforate with seven-inch casing and cement it up to the 9 5/8 at approximately 3400 feet. We will perforate the Fusselman and test and set a bridge plug above the Fusselman. We will perforate the Tubb-Drinkard and test and set a bridge plug above the Tubb-Drinkard and test the Blinebry, retrieve the bridge plug and set a Baker Model D production packer at approximately 6900 feet above the Fusselman. We will then run the number one string to the three-eighths inch tubing with a Brown oil tool HS-17-2C dual packer and a Brown oil tool HS-17-3C triple packer plus the tubing necessary to run between the setting point of the No. 2C packer for the No. 2 string. These will all be run simultaneously. We will then run the second string and latch into the top packer, pressure up and set the top packer. Then, the third string will be run. We will swab the zone in and run our potential and packer leakage tests.

Q Now, is this a type of triple completion which has been approved by the Commission in other instances?

A Yes, it is.

Q In your opinion, is it adequate to protect the producing zones, any water zones that may be encountered in this well?

A Yes, that's right.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182ALBUQUERQUE, N. M.
PHONE 243-6691

Q Is it in the interest of conservation to approve this type of completion, in your opinion?

A I would think so. It could certainly save money over drilling three single wells.

Q Have you any information on the bottomhole pressure you might expect in this particular well?

A We have the results of drill stem tests on the Hodges B-2 and the bottomhole pressure information from wells in the area, and all these are pressures to be expected. I feel they are accurate within probably about 2450 for the Blinebry, the Drinkard 2250, and the Fusselman 2700.

Q What gravity would you expect in the fluid?

A In the Blinebry, 37 degrees, the Drinkard, $37\frac{1}{2}$, and the Fusselman $41\frac{1}{2}$.

Q Do you have any information on the gas-oil ratios you might encounter?

A Yes. None of these are penalized to my knowledge. None of them have been penalized. All are below the 2,000-to-one ratio.

Q You mentioned earlier in your testimony that the Tubb zone you proposed to open is a salvage operation. Have you made any investigation as to the economics of producing that particular zone?

A Yes. I have run some recovery figures out from interpretation of the electric log. I might add that we propose to



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182ALBUQUERQUE, N. M.
PHONE 243-6691

run a drillstem test on this well and perhaps core it. From data obtained from the electric log, it appears we might expect in the neighborhood of 30,000 top stock tank barrels from these two zones. Probably the most economical method to obtain this oil, should it be completed separately, would be a quadruple completion, which we would as soon stay away from. If we had to go into that, it would be less expensive, rather than drilling a dual or single completion. I have estimated that in cost it would be slightly over \$25,000 to provide facilities to singly complete in the Tubb and in case an artificial lift were needed, it would probably run around \$31,000 to \$35,000. By applying a present worth to these 34,000 barrels, we'd just about be swapping dollars.

Q In your opinion, would that be justified from an economic point of view?

A No, not in my opinion.

Q If you were unable to produce it, would that constitute waste?

A Yes, I think it would. I don't feel we would want to do anything with this particular zone at this time in view of the fact that a triple completion would involve quite an amount of work to remove all the tubing string.

Q Were Exhibits 1, 2, and 3 prepared by you or under your supervision?

A Yes, they were.



MR. KELLAHIN: We offer Exhibits 1 through 3.

EXAMINER NUTTER: Cities Service Exhibits 1, 2, and 3 will be entered into evidence.

MR. KELLAHIN: That's all.

EXAMINER NUTTER: Are there any questions of Mr. Motter?

CROSS EXAMINATION

BY EXAMINER NUTTER:

Q Are there any Drinkard wells in this immediate area?

A Yes, sir. The J. C. Williamson, probably two locations north of there. No. 5 is a well that you recently issued your order for a Drinkard-Blinebry completion. I think it was issued the early part of this week.

Q Do you know if the zones in the Tubb were encountered in that well or not? Did you examine the log?

A Yes, we examined the log and made cross sections.

Q They did not perforate in those zones?

A No. While they were drilling, we picked up samples which showed some oil and porosity but no water saturation in the particular zone.

Q And that's the only well in the vicinity which might have produced from that zone?

A The Texaco Erwin No. 1 on the further north and west is also completed, but again, I do not believe it's completed in the Tubo. In fact, I know it's not completed in the Tubb.

Q It is completed in the Drinkard zone?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

A Right.

Q Now, approximately how far is this area from the Justis area?

A Well, it's about a mile and a half down to the very northern Justis wells.

Q Is the Tubb included in the Drinkard pay in the Justis field?

A That's correct. I think I have the order number here. That was Order Number R-1776 extending the vertical limits upward to include the Tubb pay.

Q As I understand it from your Exhibit No. 3, Mr. Motter, you are going to set the seven-inch to 7200 feet and then circulate?

A That's right. Of course, you know the Justis which produces out of the Glorietta needs to be protected in this area.

Q Will you describe the HS-17-2 packer to me, please?

A I have a diagram if you'd like to see it.

Q It is a retrievable packer?

A Yes.

Q With a setting mechanism?

A That's right, a clutch mechanism. After turning to the right it releases and releases pressure which then allows you to pull the packer.

Q Picking up on the tubing does not release the packer?

A No, you have to turn it to the right.



Q Would you enter that as an exhibit?

A I would prefer not to. Those are the only copies the Brown people have. However, if you would like --

Q We want some sort of a diagram of the packer submitted. You can do that after you get back home.

A I understand there are some cases right now, perhaps patent infringements. They are rather reluctant to let these out. I had to promise my life away to get these up here.

Q Has it ever been tried out?

A There may be some -- you may also have some of these prints on file.

MR. NUTTER: Are there any further questions of Mr. Motter?

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Motter, in the advertising of this case, you advertised that you would produce the Drinkard through parallel strings of 2 1/16-inch tubing and produce from the Fusselman zone through a parallel string of 2 3/8-inch tubing.

A Yes.

Q Did you cover that in your direct testimony?

A No. We would prefer to run two strings of 2 3/8 to the Fusselman and Drinkard. We have plenty of clearance to run those and we would prefer the larger tubing diameter.

MR. KELLAHIN: That's all.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

EXAMINER NUTTER: Do you have anything further?

MR. KELLAHIN: That's all.

EXAMINER NUTTER: Are there any further questions of Mr. Motter?

He may be excused.

(Witness excused.)

MR. KELLAHIN: That's all we have.

MR. MORRIS: I have a telegram from the Atlantic Refining Company which states that it is a 50 percent owner in the subject well and urges approval of the subject application.

EXAMINER NUTTER: We will take the case under advisement.

* * * *



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

STATE OF NEW MEXICO)
) ss.
COUNTY OF SAN JUAN)

I, THOMAS F. HORNE, NOTARY PUBLIC in and for the County of San Juan, 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 transcripts under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

Thomas F. Horne
NOTARY PUBLIC

My Commission Expires:

October 2, 1965

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of case No. 2435, heard by me on 11/29, 1961.

Thomas F. Horne Examiner
New Mexico Oil Conservation Commission

