

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  
May 10, 1962

EXAMINER HEARING

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IN THE MATTER OF: )

Application of Cities Service Petroleum )  
Company for a dual completion, Lea )  
County, New Mexico. Applicant, in the )  
above-styled cause, seeks permission to )  
complete its Hodges B Well No. 4, )  
located in Unit M of Section 1, Town- )  
ship 25 South, Range 37 East, Lea )  
County, New Mexico, as a dual comple- )  
tion (conventional) in the North Justis )  
Tubb-Drinkard Pool and Devonian forma- )  
tion adjacent to the North Justis- )  
Devonian Pool with the production of )  
oil from each zone to be through parallel )  
strings of 2 3/8-inch tubing. )

Case 2549

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BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call next Case 2549.

MR. MORRIS: Application of Cities Service Petroleum  
Company for a dual completion, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, repre-  
senting the applicant. We'll have one witness.

(Witness sworn.)



(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

E. F. MOTTER

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A E. F. Motter.

Q By whom are you employed and in what position?

A Cities Service Petroleum Company, petroleum engineer.

Q Have you previously testified before the Oil Conservation Commission and had your qualifications made a matter of record?

A Yes, I have.

MR. KELLAHIN: Are the qualifications satisfactory to the Examiner?

MR. NUTTER: Yes, sir.

Q (By Mr. Kellahin) Are you familiar with the application of Cities Service in Case 2549?

A Yes.

Q Will you state what Cities Service proposes in this application?

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A We propose to dual the Hodges "B" No. 4 in the North Justis Pool to the Devonian and Drinkard formations.

Q Now, referring to what has been marked as Exhibit No. 1, would you discuss the information shown on that exhibit?

A Yes, this is a plat of the Hodges "B" lease shaded yellow with the subject well circled in red. We have several other wells on this lease, No. 1 is a gas well in the old Justis Pool. No. 2 is an Ellenburger Montoya dual. No. 3 is a Fusselman Drinkard Blinebry dual. No. 4, we are asking for a Drinkard dual, and No. 5 will be a Devonian single completion.

Q Now, referring to what has been marked as Exhibit No. 2, would you discuss the proposed completion?

A Yes, this Hodges "B" 4 will have to be artificially lifted. We propose to run two strings of 2 3/8-inch tubing with a Brown packer set immediately above the Devonian perforations at approximately 6950 feet. Inside of this two inch tubing will be a string of three-quarter inch tubing; inside of each string of 2 3/8ths these two zones will be pumped with a Kobe pump. In this manner we expect to be able to produce a maximum of 200 barrels a day from each zone total fluid with this type of installation.

Q Both zones will have to be artificially lifted, is that correct?

A Yes, that's correct. During our initial testing we



had to swab to get tests on both zones.

Q You say this is a Brown packer, is that a permanent type packer?

A No, it's not a permanent type packer, but it takes a special tool to retrieve it. This particular packer has been used numerous times and I think we ourselves have presented testimony concerning this packer before this Commission before.

Q It has been approved by the Commission?

A Yes.

Q Is this a type of completion that has been approved by the Commission before?

A Yes, I believe that Amerada has a case of similar installation.

Q Have the two zones involved here been approved by the Commission for multiple completion elsewhere?

A Yes, they have, in this particular field these two zones have been approved for quadrups and triples before, but I believe never as a dual. This is the first dual.

Q In your opinion does this type of completion adequately protect the producing formation?

A Yes, I do.

Q Can you make packer leakage tests?

A Yes, we can. We haven't done it as yet, but we will



propose to do so if and when this order is entered. I might give you a little information on the two zones. The gravity of the Devonian on test was about  $34\frac{1}{2}$ , the Drinkard is  $37\frac{1}{2}$ , the Devonian on a swab test produced 161 barrels of oil in twenty-four hours. That well has not been tested since that swabbing test. We have tested the Drinkard just the early part of this week by the use of this Kobe equipment and it potentialized or it produced 110 barrels of oil and  $2\frac{1}{2}$  barrels of water in twenty-four hours.

Q Is there any difference in the GOR's of the two zones?

A I don't think I have a GOR on the swabbing test. I don't have a GOR on this last test either, but I know that both of them have never been known to be in excess of 2,000. Those, of course, will be filed with the potential.

Q Now, referring to what has been marked as Exhibit No. 3, will you discuss the installation shown on that exhibit?

A Well, as stated previously, we have several wells producing from several zones and we have permission to commingle all this fluid, and we have a picture of the lease with an overlay of the commingling facilities. If you look at the lease, first No. 4 down here indicates two lines going, or actually four lines to the No. 4 well, two of those are power oil lines and two of them are return production lines, Drinkard and Devonian.



Looking at the overlay on the commingling system, this Devonian and Drinkard production will come into their own separators where samplers and meters are provided to meter this production prior to commingling. We'll also have a test separator that we can test those wells any time that we so desire.

The fluid, the power oil fluid from the Kobe power unit will be metered in each zone also. These meter readings will be deducted from the overall production from the Drinkard and Devonian zones in order to get the net production from those wells at the end of each month.

Q Do you have anything further to add to your testimony?

A Well, I believe that's about it. We do have administrative approval for the commingling. I might add originally that the commingling authorization included the Blinebry, but after production all we had at the time of seeking the commingling order was the test data, and we found the Blinebry to be sour and it's had to be tanked in separate batteries, the commingling has been so amended that the Blinebry is tanked in separate batteries.

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

A Yes, they were.

MR. KELLAHIN: At this time we would like to offer

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in evidence Exhibits 1, 2 and 3.

MR. NUTTER: Applicant's Exhibits 1, through 3 will be entered in evidence.

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

MR. NUTTER: Any questions of Mr. Motter?

MR. MORRIS: Just one.

MR. NUTTER: Mr. Morris.

CROSS EXAMINATION

BY MR. MORRIS:

Q The purpose of your Exhibit No. 3, as I understand it, is just to explain to the Commission what has happened is happening with respect to the commingling and ACT on this lease and is not really in support of any application here today?

A No, that is correct. The thing we wanted to point out is that we would meter the power oil so we will know how much oil is being produced from the Drinkard and other formations since it's been commingled.

Q That wasn't contemplated at the time that you asked for your original commingling authority?

A No, that's correct, because we didn't think we would have to artificially lift at that time.

MR. MORRIS: Thank you.

BY MR. NUTTER:



Q Mr. Motter, is the cement circulated on the 13 3/8?

A Yes, I believe it is. I can check that right quick.

Yes, it's circulated.

Q What is the top of the cement on the 9 5/8?

A 9 5/8ths, cement circulated.

Q How about the top on the 7 inch?

A Top of the cement is at 5550.

Q How many sacks were used there, please?

A We used 500 sacks.

Q So that top of the cement is above the uppermost perforation in the well?

A That's correct.

Q What are the setting depths of the tubing?

A Well, the Devonian perforations are at 7,010 to 7146. The packer will probably sit about 6950, I think I do have the depth of the packer here if you'll bear with me a minute. The top of the packer is at 6971. The short string is at 6108. Of course, the long string is set into the packer.

Q You don't have any pressure information on either of these zones, is that correct?

A No, that's correct. Well, I have drill stem pressures.

Q Yes, if you have the drill stem pressures.

A I will have to go back and look those up here. We



only ran a drill stem test on the Devonian. The final shut in pressure was 1915 pounds, thirty minute shut in.

Q And the gravity on the Drinkard is  $37\frac{1}{2}$  and on the Devonian 34, is that correct?

A  $34\frac{1}{2}$ , correct, three degrees difference.

Q Now, with respect to this commingling installation, Mr. Motter, on this common test line in back of the separators --

A Yes.

Q -- there are some three-way valves shown there. Are they automatically controlled valves?

A They are pneumatic valves that can be tied into an automation system. We operate them manually as such, but this particular drawing is not complete in itself. I have the drawings with me that we submitted on the commingling order. There are other valves involved which, when this three-way valve is switched and another valve is shut in to prevent any oil going through that meter except the well on test.

Q This doesn't reflect the entire installation?

A No, if we take the Drinkard, if a three-way valve is open for a three-way test, it goes down to the test separator downstream. It has a valve which is manipulated at the same time, which puts that production back into the regular Drinkard production.

Q So these are manually controlled, but they're tied to



another automatically controlled valve?

A Yes, they're pneumatic and simply a small valve opens and closes two valves at one time.

Q I see.

A I have a small one that we filed with the commingling order.

Q We probably have that in our files.

A You do have.

MR. NUTTER: Does anyone have any questions of Mr. Motter? Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No.

MR. NUTTER: Does anyone have anything further in Case 2549? We will take the case under advisement.

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