

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 27, 1960
EXAMINER HEARING

IN THE MATTER OF:

Application of The Atlantic Refining
Company for an oil-oil dual comple-
tion.

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) Case 1873
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IN THE MATTER OF:)

Application of The Atlantic Refining)
Company for an oil-oil dual completion.)
Applicant, in the above-styled cause,)
seeks an order authorizing the dual)
completion of its Langlie Federal "A")
Well No. 1, located in Unit H, Section)
14, Township 25 South, Range 37 East,)
Lea County, New Mexico, in such a man-)
ner as to permit the production of oil)
from the Justis-Blinebry Pool and the)
production of oil from an undesignated)
Tubb pool through parallel strings of)
tubing.)

Case 1873

BEFORE:

Mr. Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 1873.

MR. PAYNE: Application of The Atlantic Refining
Company for an oil-oil dual completion.

MR. BRATTON: If the Commission please, Howard Bratton,
Hervey, Dow and Hinkle, Roswell on behalf of the applicant. I
have one witness and ask that he be sworn.

(Witness sworn.)

MR. UTZ: Are there other appearances in this case? If
not, you may proceed.

W. P. TOMLINSON

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

DIRECT EXAMINATION

BY MR. BRATTON:

Q State your name, by whom you are employed and what capacity.

A W. P. Tomlinson, District Engineer for the Atlantic Refining Company in Roswell.

Q You have previously qualified as an expert witness before this Commission and you are familiar with the application and area in question?

A Yes, sir.

MR. BRATTON: The witness' qualifications acceptable?

MR. UTZ: Yes, sir.

Q State the nature of this case and how it comes on to be heard before the Examiner.

A This is an application to dually complete our Langlie Federal "A" No. 1 Well between the Justis-Blinbry pay and an undesignated Tubb oil pay. The reason that we have requested a hearing is that the Tubb completion is more than one mile from the Justis-Tubb Pool limits and also more than one mile from any other well that has been dually completed between these two pays. Otherwise we believe it would qualify for administrative approval.

There're presently nine Tubb-Blinebry completions in the Justis area so it's very similar to those.

Q Exhibit No. 1 shows the location of the well in question?

A Exhibit 1 is a plat of the area around the Atlantic Langlie Federal "A" No. 1 Well. It shows the wells that have been drilled on offsetting leases as well as on our leases. It shows the operator and the royalty owners. The legend at the bottom of the plat shows how we have designated the completions of the various wells. This well, incidently, is located 2310 from the North line and 330 from the East line of Section 14, Township 25 South, Range 37 East in Lea County.

Q Will you refer to your Exhibit No. 2, is that a log of the well in question?

A It is an electrical log, more exactly a lateral log, gamma ray neutron log of the Langlie Federal No. 1. On the log we have designated the intervals perforated in the Tubb and Blinebry zones. I won't go to the trouble to read them all out. The exact footages are noted on the log. The top of the cement was found to be at approximately 1525 feet, so you can see it extends well above the zones of completion. We installed a Baker 415 D packer between the two zones at 5770 feet. The tops on these formations have been picked by our geologists and we believe that they're generally the same tops that are used in the area

by other operators. The completion made in the Tubb is in the dolomite stringer just below the uppermost sandy member of the Tubb formation, and the completion in the Blinebry is also in the dolomite.

Q Is there anything else you want to say about the log or what it reflects?

A Well, I might say it shows that we've perforated the porous intervals as indicated by the curve on the extreme right of the log, which is the neutron curve. We attempted to get into the porous intervals for perforations. It shows several hundred feet, incidently, between the two zones of completion. We feel that that is adequate for separation in the formation itself. That there is very little likelihood that these two reservoirs are connected.

Q Exhibit No. 3 is a log of the well?

A It is a Form 9330 required by the United States Geological Survey. This is a Federal lease and we have filed that in lieu of a similar form that the Commission usually requires. I understand that this is acceptable by the Commission. There's nothing special that I want to bring out in relation to that exhibit.

Q And Exhibits 4 and 5 are reports on the well, the completion?

~~A Also United States Geological Survey forms, sundry~~

notices and reports and they give the results of pressure tests that we made on the 9 5/8" casing. They were satisfactory tests.

Q Showed you tested your 9 5/8" casing 1200 pounds for thirty minutes?

A Yes.

Q And your 7" casing 1500 pounds for thirty minutes?

A For thirty minutes, yes.

Q Exhibits 6 and 7.

A Exhibits 6 and 7 give the results of potential tests on the Tubb Zone and the Blinebry Zone respectively. It shows that the Tubb flowed 256 barrels of oil twenty-four hours, indicating that we have an oil completion there and also shows that the Blinebry Zone flowed 169 barrels of oil in twenty-four hours. I beg your pardon, I would like to reverse that, the first was the Blinebry and the second was the Tubb, but the significance is the same, we do have an oil completion in both zones.

Q What kind of drive do you have, if you know, Mr. Tomlinson?

A Of course we have very little producing history on this well, but based on our observations of the remaining part of the Justis Pool, both the Tubb and the Blinebry formations, we are expecting to have a solution gas drive.

Q Referring to Exhibits 8 and 9, Mr. Tomlinson.

A These are Form C-124. The Exhibit 8 pertains to the

Tubb formation shows that we had a BHP Pool datum of 2,186 psi. Exhibit 9 pertains to the Blinebry and shows that the BSP at the pool datum was 2,377 psi. Incidentally, some of those forms we wouldn't bother to put these in except that we think that they would be required anyway administratively, so we have gone ahead and put them in.

Q Submitted all the same forms that you would be required to administratively?

A Yes.

Q Refer now to Exhibit 10, Mr. Tomlinson, and state what it shows.

A It is a packer leakage test giving the results of production test and pressure test on the casing and on the tubing while the tests were in progress. My note on here that the gravity, for example, on the Tubb is 39.6 degrees api and had a GOR of 1,087. The gravity on the Blinebry formation, for the Blinebry formation, 38.8 degrees api and GOR of 333 cubic feet per barrel.

Q Refer now to Exhibit No. 11, Mr. Tomlinson and explain it, please.

A Exhibit 11 is a diagram of a mechanical installation in the well. It shows the location of the Baker 415 D packer, it gives the perforation for the Tubb and Blinebry zones, it shows that we have presently strings of 2" tubing in the well, one being bottomed above the packer and the other being continued through the

packer to produce the Tubb zone. This is a conventional dual completion seemingly insofar as Atlantic goes, and I believe is probably for most of the industry in that field.

Q You are satisfied that there are adequate safeguards against communication between the zones, between the reservoirs?

A Yes, sir. We have had very good luck with this type of installation.

Q And Exhibit No. 12 is your packer setting affidavit?

A This is a setting affidavit that is prepared by our Superintendent. It shows that the packer was installed. I would like to say that the advantage to this dual completion from our standpoint is that it represents considerable saving over drilling a single well to the Tubb. We'd save about \$46,000 by dually completing. That's the principal reason that we want it.

Q There are, to your knowledge, nine other Blinbry-Tubb dual completions in the same general area, but just not close enough to qualify this well for administrative approval?

A That is correct. I have a list of those, and if the Examiner is interested in them, I could furnish a list.

Q Is there anything further which you care to state with regard to this application, Mr. Tomlinson?

A No, sir.

Q Exhibits 1 through 12 were prepared by you or under your supervision?

A Yes, sir.

MR. BRATTON: We would offer Exhibits 1 through 12 in evidence.

MR. UTZ: Without objection they will be accepted.

MR. BRATTON: We have no further questions of Mr. Tomlinson.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Tomlinson, to what do you attribute the 51 pound decrease when you were flowing the Blinbry zone on your packer leakage test?

A That is felt to be due to segregation within the tubing for that zone. I talked to our field personnel that conducted the test and they felt like that it was a phenomena that they had observed several times in the past and they believed that was the cause of it.

Q The segregation?

A Yes, the fluid when the well was initially shutin has a column of oil and gas that is a mixture of oil and gas flowing, after the well has been shutin separation occurs within the tubing and actually the fluid level comes up, there's more gas located at the top of the column and it causes a lower pressure there.

Q This happens while the well is shut in then?

A Yes, sir. As a matter of fact, I believe that this

segregation they stated that they noted it even before, well, as soon as the well was shut in it started to decrease. Although the decrease did not occur during the flow period of the Blinebry zone. That part of it occurred when they were both shut in.

Q If that were the cause, that would represent over a hundred feet of liquids in common?

A Yes, sir.

Q What type crude is each of these zones producing?

A To my knowledge they are producing intermediately, I suppose you mean from sweet --

Q Sweet or sour.

A I think it is classified as intermediate crude.

MR. UTZ: Any other questions of the witness?

BY MR. PAYNE:

Q Mr. Tomlinson, I notice on your request for allowable on the Blinebry zone under remarks it says the gas is being vented waiting on completion of Tubb formation.

A Well, I can bring you up-to-date a little bit. You see, these were prepared right after the well was completed. My understanding is that their connection ~~is made~~ on the lease, but sale is held up pending Federal Power Commission approval.

Q But both zones will be connected to El Paso's system?

A Yes, sir, that's my understanding.

Q Now, on your initial application your diagramatic sketch

showed a retrievable packer set at 5290 feet. I notice that you have left that out of your more recent diagrammatic sketch here. I wondered if there was any particular reason for that.

A Well, I'm sorry I don't have an application here. However, the 415 D is what they did put in.

Q That's your permanent packer?

A That is our permanent packer. It's set at 5770, and let's see --

Q Let me ask you this, Mr. Tomlinson, the second packer is not necessary to permit waste or permit communication between zones, is it?

A No, sir, the purpose in that is to force all the gas that the upper zone might produce up through that tubing and thereby enlighten the column of fluid in the tubing and make it flow easier. I am unable to say here where they ran that packer. I can't find it in our records, but in either event I don't believe it would have any effect on the separation of the two zones.

MR. PAYNE: That's all.

MR. UTZ: Are there other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Did you enter your exhibits?

MR. BRATTON: I think so.

MR. UTZ: The case will be taken under advisement.

STATE OF NEW MEXICO)
 : SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal
this 12th day of February, 1960.

Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a true and correct copy of the original in the files of the Department of the Interior, Bureau of Land Management, dated 1873, heard and read Jan 27, 1960.

W. H. H. H., Examiner
New Mexico Oil Conservation Commission