



BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

TRANSCRIPT OF HEARING

August 19, 1952

Case No. 392-
399, Incl.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

In the matter of the application of Shell Oil)
Company for an order permitting dual completion)
of its Turner No. 3 well, Drinkard Pool, NW/4) Case No. 392
SE/4 Section 22, Township 21 South, Range 37) (to 399 incl.)
East, NMPM, Lea County, New Mexico.)

TRANSCRIPT OF HEARING

August 19, 1952

(See transcript in Case Entitled "Allowable"
for register of attendance and appearances.)

MR. SPURRIER: We will proceed to the next case,
No. 392.

(Mr. White reads the Notice of Publication.)

MR. SETH: If the Commission please, we would request that Cases 392 to 399, inclusive, be consolidated for the purposes of this hearing, and the record show that the testimony can be considered in each case.

MR. SPURRIER: Very well, you may proceed on that basis.

MR. SETH: We would first like to present information which is of a general nature and common to all of the wells and concluding that, proceeding to the individual wells.

We will call Mr. Scott as our first witness.

(The witness was sworn.)

W. A. SCOTT

being first duly sworn, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. SETH:

Q State your name, occupation and position, Mr. Scott.

A W. A. Scott, employed as Exploitation Engineer for the Shell Oil Company, with offices at Hobbs, New Mexico.

Q Have you been previously qualified as an expert before this Commission?

A Yes, sir.

Q Mr. Scott, are you familiar with the applications made by Shell Oil Company in Cases 392 to 399, inclusive?

A Yes, I am.

Q Have you prepared a map showing the location of the several wells concerned?

A Yes, I have.

Q Do you have it with you? (Produced.)
(Map marked Exhibit No. 1).

Q Was this map prepared by you under your direction, Mr. Scott?

A Yes, it was.

MR. SETH: We would like to offer Shell's Exhibit 1 in Case 392, to 399.)

MR. SPURRIER: Without objection, it will be received.

Q Would you state briefly, Mr. Scott, the matters that the map or plat illustrates?

A Yes, sir. This plat purports to show both the application and the location of the applied for eight wells, which are four Drinkard, Blinebry dual wells, and four Drinkard, Tubbs duals, with Drinkard oil and Blinebry and Tubbs gas.

Q Would you point out on the map the wells which you propose to have dually completed?

A Yes, sir. Going geographically from north to south in Section 15, we propose to dually complete our State No. 1

as a Drinkard oil, Tubbs gas dual completion. That is in green. And in red, our State No. 2, as a Drinkard oil, Blinebry gas dual completion. In the southwest quarter of Section 15, we propose to dually complete our Argo 1 as a Drinkard oil, Tubbs gas dual completion; our Argo 3 as a Drinkard oil, Blinebry gas dual completion.

In Section 22, we propose to dually complete our Argo A No. 1 as a Drinkard oil, Tubbs gas dual producer; our Argo A No. 5 as a Drinkard oil, Blinebry gas dual producer. In the south half of Section 22, we propose to dually complete our Turner No. 13 as a Drinkard oil, Blinebry gas dual producer, and our Turner No. 3 as a Drinkard oil, Tubbs gas dual producer.

The proposed Drinkard oil, Blinebry gas duals are colored in red. The Drinkard oil, Tubbs gas duals are colored in green.

Q Now, does this map also show completions on adjoining acreage?

A Yes, sir. We have attempted to show in addition to the location of our applied for duals, the competitor wells on adjacent sections which are producing either Tubbs gas or Blinebry gas, either single-zone completions or as dual completions.

Q Do you have any data relative to the production on adjoining acreage, this competitive production?

Q Yes, I do, on this tabulation prepared by me.

(Tabulation of production on adjoining acreage marked Shell's No. 2, Case 392.)

A (Continuing): I have listed the wells of competitors on adjacent acreage, which are producing gas from either the Tubbs or the Blinebry zones. I have listed the well, the gas pay that the well is producing from, and as of July 1, 1952, the thousand cubic feet of gas produced by the well and barrels of condensate. In addition, I have listed the date of the first gas as reported, and date of the first condensate as reported.

MR. SETH: Now, we would like to offer Exhibit No. 2.

MR. SPURRIER: Without objection, it will be received.

Q Is there anything further on that exhibit that you want to refer to, Mr. Scott?

A No, sir. I believe not.

Q Well, referring back to Exhibit 1, does this map also show previous dual completions?

A Yes, sir, it does, both of other companies and of Shell.

Q Would you have any observation to make as regards those dual completions, any corrosion problems, or any engineering data that you would like to present?

A Yes, sir. We have found from tests made on wells previously

dually completed by Shell, which were approved by this Commission, that the gas is not of a corrosive nature, either in the Tubbs zone, or in the Blinebry zone; and that information was given in addition in our letter of application for each dual completion.

Q Then you anticipate no unusual corrosion problems in the dual completions for which you are making application?

A No, sir, none whatsoever.

Q And that is based on your previous experience on those adjoining dual completions?

A Yes, sir.

Q And that from other companies?

A Yes, sir.

Q Now, I believe you said that some of the dual completions are for Tubbs gas and some for Blinebry gas, both for Drinkard oil, is that correct?

A Yes, sir, it is.

Q Could you state briefly the relative position of the Blinebry, Tubbs and the Drinkard formations?

A From a geological standpoint and based from an electrical log on our State No. 2, which we propose to dually complete, the Drinkard and Blinebry, and of which the Commission already has a copy, it is found that the Blinebry zone, which is the upper member of the Clearfork formation, is found at a depth of 5500 to 5600 feet below the

surface of the ground. The Tubbs zone is the middle zone of the upper Clearfork and is found by both sample analysis and log core relation at depths of around 6100 feet from the surface of the ground. The Drinkard, which is the oil-producing zone in each case of the wells where we have applied for dual completion, the Drinkard is found at around 6500 to 6634 to 6656 feet from the surface of the ground, and is the lower member of the Clearfork formation.

Q Any further remarks or observations you would like to make on the geology, Mr. Scott?

A No, sir. I believe that covers the geological aspect.

Q Copies of these logs have previously been furnished the Commission on each expanse, have they not?

A Yes, sir, they have.

Q Would you describe briefly the mechanical subdivisions and methods you propose to use in completing the wells?

A Yes, sir. We propose to separate the Drinkard zone, the lower zone, the oil-producing zone, from the upper gas-producing zone whether it be Blinbry or Tubbs, by a casing production packer, On top of which we plan to install a side door choke assembly so that all tests desired by our company and desired or required by the Commission, may be taken so that adequate proof can be shown that effective separation has been made between the oil-

producing zone and the gas-producing zone. We propose to perforate the casing in each instance for the Blinebry or Tubbs gas production, produce the gas through the casing tubing and utilize and produce^{from}/the oil zone below the production packer through the tubing. Copies of the diagram and the sketch of the proposed mechanical installation in each of these wells has been presented to the Commission with our application.

Q Is this type of completion similar to your other dual completions on adjoining acres?

A Yes, it is. We have successfully used this type of mechanical installation that has been approved by the Commission in previous dual completions.

Q Will it be so equipped that tests may be separately taken to show the reservoir pressures in the various formations?

A Yes, sir.

Q And can recording devices be attached if the Commission requests it, to show the relative pressures in different formations?

A Yes, sir, they can.

Q And the determination of the gas-oil ratios?

A Yes, sir.

Q Do you believe in your opinion that the completion will be such that no comingling will be had in the well bore of the gas and oil?

A Yes, sir, and I base that statement on our experience on the previously, recently completed dual producers.

Q Are there any other facts that are common to all these wells that you would like to present?

A At this time, I would like to present some engineering information taken from tests on our three wells, which we have dually completed. This information has been sent to the Commission in compliance with their orders after tests have been run on our three wells.

These are the Shell Sarkeys 2 in the southwest quarter of Section 23, which is a Drinkard oil, Blinebry gas; Turner 5, in the southwest quarter of section 22, which is also a Drinkard oil, Blinebry gas; and our Shell Turner 2 in the southwest quarter of Section 22, which is a recently completed Drinkard oil, Tubbs gas producer.

I might add that none of these wells as yet have been connected to the gas pipelines, but all required tests have been made and these results turned in to the Commission; and this is a brief summary in order to show the effective separation and other data regarding these three dual completions.

Q Did you prepare this data?

A Yes, I did.

MR. SETH: We would like to have it marked and offered as Exhibit 3.

(Production Data, Dual Completions, was marked Shell's Exhibit No. 3.)

MR. SPURRIER: Without objection, it will be received.

Q Now, with reference to the specific wells in the several cases, would you start with the Blinebry-Drinkard wells and give the Commission the specific data on each one, starting with Case No. 394?

A Yes, sir. If the Commission please, and we could start and come down geographically from north to south, it would give the Drinkard oil, Blinebry gas information, which we feel is pertinent on each well.

Shell State 2, completed in January, 1949, is a Drinkard oil well. It was completed in the interval of 6585 to 6641 feet, after having been drilled through the Brinebry gas producing interval from 5550 to 5722 feet.

Q That has produced oil from the Drinkard, has it?

A Yes, sir.

Q Next, Case 398.

A Case 398 is Shell Argo 3. It was completed in April, 1948, at a total depth of 6645 feet, to produce oil from the Drinkard formation in the interval of 6494 to 6645 feet, after having been drilled through the Blinebry gas

productive interval from 5543 to 5659 feet. That is in the southwest quarter of Section 15. In fact, both those wells are in the southwest quarter of Section 15.

Q No. 399.

A No. 399 is Shell Argo A No. 5, located in the northwest/^{quarter of} section 22. It was completed in March, 1950, at a total depth of 6633 feet, to produce Drinkard oil from the depth interval of 6535 to 6633 feet, after having been drilled through the Brinebry gas productive interval from 5498 to 5628.

Q And 393?

A No. 393 is Shell Turner 13 in the southwest quarter of Section 22. It was completed in August, 1950, at a total depth of 6633 feet to produce Drinkard oil from the interval of 6550 to 6633 feet, after having been drilled through the Blinebry gas productive interval from 5510 to 5621 feet.

Q Case No. 395.

A No. 395 is a Drinkard-Tubbs completion. This is now, will be, the first Drinkard-Tubbs completion and the Shell State 1 in the northwest quarter of Section 15.

It was completed November, 1948, at a total depth of 6641 feet, to produce Drinkard oil from the interval of 6546 to 6641 feet, after having been drilled through the Tubbs gas productive interval from 6062 to 6288 feet.

Q No. 397.

A No. 397 is Shell Argo 1, located in the southwest quarter of Section 15. It was completed in September, 1947, to a total depth of 6646 feet, to produce Drinkard oil from the interval of 6529 to 6646 feet, after having been drilled through the Tubbs gas productive interval from 6030 feet to 6240 feet.

Q No. 396.

A Case 396 is Shell Argo A No. 1, located in the northwest quarter of Section 22. It was completed in July, 1947, to a total depth of 6636 feet, to produce Drinkard oil from the interval of 6510 to 6630 feet, after having been drilled through the Tubbs gas productive interval from 5988 to 6236 feet.

Q No. 392.

A Case 392 is Shell Turner 3, located in the southeast quarter of Section 22. It was completed in June, 1949, at a total depth of 6618 feet, to produce Drinkard oil from the interval of 6520 to 6618 feet, after having been drilled through the Tubbs gas productive interval from 5970 to 6240 feet.

Q You will apply to fully complete all of these wells to which you referred in the manner in which you first stated, is that correct?

A Yes, sir, we do.

Q You anticipate no problems peculiar to any one well here concerned?

A No, sir, we do not. We feel that they are all similar cases.

Q The conditions in the holes and the geological situations are the same as regards all wells concerned?

A Yes, sir, that's right. All of these wells have the casing set near the top, or below the top of the Drinkard oil producing formation, none above the top of the Drinkard oil producing formation. Seven of them produce from the open hole below that casing shoe. One has the casing set all the way through and is perforated in the Drinkard zone.

Q Is there anything further you would like to state to the Commission?

A No, sir, except that we feel that these proposed dual completions are within the principles of sound conservation, that they will cause no waste.

MR. SETH: That's all the testimony.

MR. SPURRIER: Does anyone have a question of this witness?

CROSS EXAMINATION

BY MR. MACEY:

Q Mr. Scott, I don't know, maybe you testified as to this

and I missed it. What is the condition of the cement behind the pipe? In other words, have you run temperature surveys when you ran your pipe, to determine the top of the cement in every case?

A In those cases, we have run some temperature surveys. In those cases in which we have not, we ran sufficient cement to insure by calculated volume that the cement in the annulus behind the oil producing strain would be brought to a sufficient depth to be well above the top of any of the proposed intervals in any of the wells in the Blinbry gas producing zone, which is the uppermost producing zone.

MR. SPURRIER: Any other questions? If not, the witness may be excused.

(Witness excused.)

(Discussion off the record.)

STATE OF NEW MEXICO)
COUNTY OF SAN MIGUEL) SS.

I hereby certify that the foregoing and attached transcript of proceedings in Case Nos. 392 to 399, inclusive, before the Oil Conservation Commission, is a true and correct record of the same to the best of my knowledge, skill and ability.

Dated at Las Vegas, New Mexico, this 23rd day of August, A.D. 1952.

Luth Warden
REPORTER