

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

November 20, 1957

IN THE MATTER OF
CASE NO. 1340

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTA FE
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NEW MEXICO OIL CONSERVATION COMMISSION

Mabry Hall

Santa Fe, NEW MEXICO

REGISTERHEARING DATE Examiner November 20, 1957 TIME: 9:00 a.m.

NAME:	REPRESENTING:	LOCATION:
Nancy Rogers	J.M. Stetson Repting S.	Midland, Texas
B.F. Wotter	Cities Service	Hobbs, N.M.
W. H. Hume	CITIES SERVICE	Hobbs, N.M.
W. H. Hume	W. H. Hume & Hume	Midland
H.C. Heald	Humble	Midland
S. Kelley	Pac American	Roswell
Don Currens	-	-
Guy Bue	-	Fort Worth
D.E. MORRIS	OHIO OIL CO.	MIDLAND
J.C.T. COHEN	" " "	HOUSTON
Emmett Williams	Cities Service	Roswell
J.W. Montgomery	Shell Oil Co.	Roswell
R.L. Elkins	" " "	"
Borden Yeager	" " "	"
R.F. Green	Shell Oil Co.	Midland, Texas
O.C. McIndyhe	American Ref. Corp.	Monument N.M.
Jason Kullback	" " "	Latah, Idaho
S.V. Boynton	Continental	Hobbs, N.M.

BEFORE THE
OIL CONSERVATION COMMISSION
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IN THE MATTER OF CASE 1340.

Application of the Ohio Oil Company for an order authorizing an oil-oil dual completion in the Monument-Blinebry Pool and Monument-Paddock Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Bertha Barber Well No. 9 located 1980 feet from the North line and 560 feet from the West line of Section 5, Township 20 South, Range 37 East, Lea County, New Mexico, in such a manner that oil may be produced through parallel strings of tubing from the Monument-Blinebry Pool and Monument-Paddock Pool, Lea County, New Mexico.

BEFORE:
Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The hearing will come to order. The first case on the docket is Case 1340.

Application of the Ohio Oil Company for an order authorizing an oil-oil dual completion in the Monument-Blinebry Pool and Monument-Paddock Pool, Lea County, New Mexico.

MR. COUCH: Mr. Examiner, we will have one witness. I am Terrell Couch for the Ohio Oil Company, and our witness will be Mr. D. E. Morris.

D. E. MORRIS

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

DIRECT EXAMINATION

BY MR. COUCH:

Q Will you state your name, please?

A D. E. Morris.

Q By whom are you employed, Mr. Morris?

A Ohio Oil Company.

Q And in what capacity and for how long, please, sir?

A Petroleum engineer for approximately ten years.

Q Where are you employed? A At Midland, Texas.

Q Your duties in Midland include supervision or assisting in supervision from an engineer's standpoint of the Ohio production in Lea County? A They do.

Q Mr. Morris, have you previously testified before the Commission or before one of its Examiners?

A No, I have not.

Q Will you state briefly for the record and for the Examiner your professional qualifications?

A I graduated from the University of Texas in 1948 with a degree in petroleum engineering, B. S. degree in petroleum engineering. I have been employed by the Ohio since June, 1948.

Q Since June, 1949? A '48.

Q '48? A Yes, sir.

Q Working all the time either in a field or supervisory capacity in petroleum engineering work?

A Yes.

MR. COUCH: Are the qualifications of the witness accepted?

MR. UTZ: The qualifications of the witness are acceptable.

Q In connection with your duties, have you previously advised

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yourself of the -- concerned yourself with the facts of the Bertha Barber Well No. 9? A Yes, I have.

Q And is it the purpose of the Ohio to dually complete that well with an oil-oil dual completion?

A Yes, sir.

Q Please look at that plat and state whether it was prepared under your supervision and direction? A It was.

MR. COUCH: We will offer this plat as the Ohio Exhibit No. 1.

MR. UTZ: It will be so identified.

Q Looking at that plat, Mr. Morris, does that show approximately the location of the Ohio Bertha Barber Well No. 9?

A Yes, it does.

Q Will you state the location of the well, please?

A Ohio Bertha Barber No. 9 is located 1980 from the North line, 560 from the West line, Section 5, Township 20 South, Range 37 East, Lea County, New Mexico.

Q And the well is presently completed in the zone designated as the Monument-Blinebry zone, is that correct, sir?

A Yes, sir, that's correct.

Q The Commission has prorated the well and carries it on schedule as a Blinebry oil well at the present time?

A That's correct.

Q Will you please look at the electric log you have on the well and state if that is a correct copy of the electric log the Ohio has on the Bertha Barber Well No. 9? A Yes, sir, it is.

Q Mr. Morris, on that copy of the log, have you marked the location of the present perforations of the well?

A Yes, sir, I have the present producing perforations indicated on the log.

Q Will you state what they are, please, sir?

A The present producing perforations are 5570 to 5600.

Q And at what interval do you propose to dually complete the well in the Monument-Paddock formation?

A We propose to perforate the well from 5200 to approximately 5223.

Q Have you indicated by ink markings on the copy of the electric log those two perforated intervals?

A Yes, sir, they are indicated on the log.

MR. COUCH: Ohio offers in evidence as its Exhibit No. 2, a copy of the electric log marked and showing the perforation intervals of present production and future dual completion.

MR. UTZ: It will be so marked. Are you introducing this at this time?

A Yes, sir.

Q Will you please look at this diagram, Mr. Morris, and state whether this was prepared under your supervision and direction?

A Yes, sir, it was.

Q Does that show the mechanical method of dual completion that you propose to use in effecting the dual completion of this well?

A Yes, sir.

MR. COUCH: I ask that that be identified and marked as Ohio's Exhibit No. 3.

MR. UTZ: It will be so marked.

MR. COUCH: Those are all the exhibits we propose to offer, and I now offer into evidence, Exhibits 1, 2, and 3 presented by the Ohio Oil Company.

MR. UTZ: Are there objections to the introduction of the Ohio Exhibits 1, 2, and 3? If not, they will be so accepted.

Q Mr. Morris, looking at the Ohio Exhibit No. 3, will you state briefly for the Examiner the proposed method of dual completion to be used on this well?

A Yes, sir. We propose to set a Baker production packer at 5540.

Q 5540 feet from the surface?

A Yes, sir. Perforate the Monument-Paddock from approximately 5200 to 5223 and use two strings of two and one-sixteenth inch O.D. Hydril tubing with the upper string, or the short string hung at approximately 5275 feet, and the long string hung approximately 5600 feet.

Q Mr. Morris, the production string of casing is what size in this well?

A It is five and one-half inches O. D., fifteen point five.

Q Mr. Morris, have you talked with the Hydril people, manufacturers of this Hydril tubing, concerning the use of two strings, as the two and one-sixteenth Hydril tubing in casing of this size?

A Yes, sir, I have.

Q And have you yourself considered the feasibility of using two strings of tubing of this size in casing of this size?

A Yes, sir, I have.

Q Is it your thought that, your opinion, that you can effect this dual completion by the use of that equipment?

A In my opinion we can.

Q You do not anticipate any trouble in making the dual completion in that well?

A No, sir, we do not.

Q Now, in the event you should run into some difficulty, would you propose to use the next largest size of tubing that you could, next smaller than this, or just as large as this?

A We will use the largest size possible, that is right.

Q And whatever size you do use, you would, of course, make a full report and statement to the Commission at the conclusion of the dual completion, would you not?

A Yes, we would.

Q But again, you do not anticipate any difficulty in using this two and one-sixteenth inch tubing?

A We do not.

Q When you effect the dual completion, complete the well head, will you have adequate valves and fittings so that the Packer Leakage test can be run on the well?

A Yes, sir, we will have the necessary valves.

Q Mr. Morris, do you know the present gas-oil ratio of the Monument-Blinbry production from this well?

A Yes, sir. On Bertha Barber No. 9, on the gas-oil ratio test

taken August 24, 1957, the gas-oil ratio was 1051 to 1.

Q And does the Ohio have other Monument-Paddock production on this same lease?

A Yes, sir.

Q Do you know the gas-oil ratio of the Monument-Paddock production on this other well, on the lease?

A Yes, sir. It's -- I have it written here. We have one other Paddock well, and the ratio on that well is 712 to 1.

Q Do you anticipate that the gas-oil ratio of the Monument-Paddock production you would seek in this dual completion will be greater than 2000 to 1 or less than 2000 to 1?

A Less than 2000 to 1.

Q Approximately what do you expect it to be?

A Approximately seven to eight hundred.

Q Is the Monument-Blinebry production flowing at present, or is it on pump?

A It is flowing.

Q Do you expect the Monument-Paddock to be also a flowing well?

A Yes, sir, we do.

Q Have you made an estimate of the production cost of making this dual completion?

A Yes, sir.

Q Will you state approximately what that cost will be?

A We estimate a cost of approximately \$27,000.00 to dual the well.

Q And have you made an estimate of the cost of drilling, completing, and equipping a well to the Monument-Paddock, just drilling a separate well to the Monument-Paddock?

A Yes, sir, we have.

Q Will you state what that figure is, please, sir?

A A new well would cost approximately \$127,000.00.

Q Was that the actual cost of another Monument-Paddock well drilled by the Ohio on the same lease? A Yes, sir, it was.

Q Mr. Morris, would you recommend to a reasonable prudent operator that he dually complete this well to obtain Monument-Paddock production, or that he drill a new well to obtain Monument-Paddock production on this lease?

A I recommend a dual.

Q One reason for that, I suppose, is economics involved?

A Yes, sir, that's right.

Q Did the Ohio encounter any trouble originally when it drilled this well? A We did.

Q Will you state for the Examiner briefly the trouble that the Ohio encountered in drilling the well?

A Yes, sir. While drilling Bertha Barber No. 9, we lost circulation at 4432 feet. The preventors were closed and pressure built up to 500 pounds a square inch. Also, loss circulation trouble was encountered from 4432 feet to 4775 feet, at which point we installed a high pressure drill head, drilled to total depth.

Q Now, did the Ohio encounter any similar trouble on other wells in this same area?

A Yes, sir, we had trouble on other wells.

Q Would you state briefly some of those difficulties that were encountered?

A While drilling for Bertha Barber No. 9 on this same lease, the well blew out at 2410 feet with 10.4 mud in the hole. The mud weight was increased up to 107 and drilling continued to a point at which circulation was lost. We had loss circulation trouble at approximately 3294.

Q Mr. Morris, have you made an inquiry, or investigation, to try to determine whether other operators have had similar troubles in this vicinity?

A Yes, sir, I have.

Q Would you tell us the source of information that you obtained it from?

A This information was obtained from scout tickets.

Q And those scout tickets are based, I believe, on information exchanged between scouts of different operators as part of the regular oil business?

A That's right.

Q And these scout tickets are prepared by your scouts based on that information?

A Yes, sir.

Q What do those records indicate as to trouble by other operators in other wells, giving the identity of the well and location and state briefly the troubles that were encountered?

A All right. From scout tickets, the Amarada Lambert No. 8, located 990 from the North line, 1980 from the East line of Section 6, Township 20 South, Range 37 East, blew out at approximately 2823 feet. This well was drilled in 1952.

We have another one, Gulf Oil Corporation, Mathew No. 8, which is located 990 from the South line and 1650 from the East line of Section 6, Township 20 South, Range 37 East. This well blew out at, at a T. D. of 4,057 feet, at an estimated rate of twelve million cubic feet per day.

Sinclair Oil and Gas, Bertha Barber No. 13, located 1650 from the North line, 660 from the West line of Section 8, Township 20 South, Range 37 East, blew out at 2900 feet. This well caught fire. After the fire was put out, the well was killed, plugged, and abandoned as of April, 1954.

Q Mr. Morris, based on that information and your knowledge of this area, would you say that the hazard of loss circulation and Blow out are more likely here than in operations in general?

A Yes, sir, that is right. That is our experience in this area.

Q Now, as to the possibility of blow out and the result of loss of oil or gas that might occur from attempting dual completion, or from drilling a well to the Monument-Paddock, which would be the greatest, drilling the well, or attempting this dual completion, the greatest risks, risk?

A The greatest risk would be in drilling a new one.

Q By attempting a dual completion, you are avoiding the possibility of losing oil, or gas as a result of a blowout that might be expected?

A Yes, sir, that's correct.

Q Mr. Morris, these two zones, the Monument-Paddock zone that

we intend to perforate, and the zone from which the wells are producing they are two separate and distinct reservoirs, are they not?

A Yes, sir, they are.

Q If the Ohio is denied the right to attempt this dual completion, is it your opinion that the Ohio will be deprived of a fair opportunity to produce its proportionate part of the oil and gas in the Monument-Paddock formation in this area?

A In my opinion, we would be deprived of this right.

MR. COUCH: I have no further questions.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Morris, what would be the next size tubing that you would use if you couldn't use your two and one-sixteenth Hydril?

A Well, sir, I really don't know what size we would use. If we can't use the two and one-sixteenth, that would be up -- that would be a management decision on that.

Q Do you think it would be one inch?

A I think it would be larger than one inch.

Q You will be willing to run the usual packer leakage test, will you not, if this application is approved?

A Yes, sir.

Q The zones in which this well is completed, the Monument-Paddock and the Monument-Blinbry zones, are they zones as defined by the Oil Commission for these two pools, as designated by the Oil Commission?

A I am not sure of the designation of the Blinebry zone, as the Commission defines it.

Q Has the Hobbs office designated these wells as Monument-Paddock and Monument-Blinebry wells? A Yes, sir, they have.

Q Do you have any information as to the pressure in the Monument-Paddock and the Monument-Blinebry zones, bottom hole pressures?

A Yes, sir. In the Monument-Blinebry, on our Bertha Barber No. 9, the bottom hole pressure taken September of '57 was, at minus 2090 feet datum, it was 2139.

Q What was the datum?

A Minus 2090. In the Paddock, at a minus 1600 foot datum, on the Bertha Barber No. 12, pressure taken September, '57, it was 1709 pounds.

Q The difference in those pressures is well within the range of the Baker model "D" Packer? A Yes, sir, it is.

MR. UTZ: Does anyone else have a question of Mr. Morris? Mr. Nutter.

QUESTIONS BY MR. NUTTER:

Q Why have you chosen to use two and one-sixteenth Hydril "CS" tubing in this installation, Mr. Morris?

A Well, sir, we want the largest size tubing we can get in the well. It would be easier to artificially lift the well at a later time, if necessary.

Q You think possibly the use of this larger tubing is in the interest of conservation, then? A Yes, sir, I do.

Q In the event you encounter any trouble in running this two and one-sixteenth inch Hydrill tubing you would have to go to a smaller size tubing, and there might be some penalty as far as conservation itself is concerned, is that correct? There might be a loss of pressure or reservoir engineering in flowing this well through a smaller size tubing, is that correct?

A In my opinion, we can flow it through a smaller size tubing without a loss.

Q You can flow it through a smaller size tubing than a two inch tubing?

A Yes, sir. We might be able to do it.

Q Do you think you might be able to satisfactorily pump a well with a smaller size tubing in it?

A With smaller size tubing we might have difficulty in pumping at this depth.

Q Well, I think you stated a while ago that the selection of another size tubing would be a matter for your management to determine?

A Yes, sir.

Q Do you think that that also might be the case, that it might be a matter for the Commission to determine whether a smaller size tubing might be acceptable or not?

A Yes, sir.

Q Would Ohio be willing for this order to restrict the size of tubing, in the order entered by the Commission, to be two and one-sixteenth inch Hydril?

MR. COUCH: May I interrupt at this point, please. Mr. Nutter,

we would prefer, if the Commission feels it's justified, to not have an absolute restriction on this size tubing. As the witness has testified, the Ohio plans to use two and one-sixteenth tubing and the reasons for it are that we think it will be more in the interest of conservation and it will be easier to operate the well and test the well if we can use a larger tubing.

MR. NUTTER: It is preferable?

MR. COUCH: It is preferable from our standpoint, from the standpoint of operations and conservation. We expect to use the largest size tubing that it is possible to use in effecting this dual completion, I believe, was the witness' testimony about Ohio's management decision, and the question was simply as to what would be the next size that could be used, and in the event we have a rig, in attempting this dual completion, we would expect to use the next largest size tubing possibly, but we would prefer not to be restricted in this order. If we did have trouble, we would have to stop with the rig there and come back and get an exception, and we would rather have the right to go ahead and use the largest size we could use and then report it to the Commission, and I think the Commission customarily, in its orders, reserves the right to deprive the operator of the production in the event the mechanical condition is not satisfactory for any reason. We feel that the interest of conservation will be served by that restriction and by the report of what we have done, and I think that that would be our position. We rather not have the absolute restriction in the

order; we rather that the Commission retain the right to tell us we couldn't produce it when we got through, if that is what the situation was. Do I make myself clear on that?

MR. NUTTER: Would the Ohio Oil Company be willing to notify the Commission of any necessity for deviation from this plan and obtain the Commission's authority to deviate from that plan?

MR. COUCH: We have no objection at all to attempting to give notice immediately when we saw that difficulty would be encountered. We would prefer not to be in a position of having the rig overhauled and waiting on a decision or perhaps it would be difficult to get word to you. It is not a matter of trying to do something without knowing what we are doing, it is just a matter of once we start to effect a dual completion, if you don't like what we have done and if it is not two and one-sixteenth inches, of course, you have the right to stop us so that we could not produce. We will cooperate with you fully and with the Hobbs Office and let them know what our problems would be.

MR. NUTTER: I am sure that the Commission would not want you to sit with the rig in the hole and wait for another hearing to come up, but I think the Commission should have the prerogative to say whether another size tubing would be installed.

MR. COUCH: Prior to the tubing being run, I am sure that you have that prerogative anyway, Mr. Nutter, and going down the line, we would be glad to tell you, the moment we find that different size tubing has been run, we will be glad to notify the Commission

or whoever it suggests. Probably there could be a meeting of the minds on that before the work was actually done. It would be to our advantage to get it done that way rather than speed the movement and then come back.

Q (By Mr. Nutter) What are the other size tubings available which could be run on this well?

A Well, Hydril has one and one half inch tubing at this time.

Q And in all likelihood, if two and one-sixteenth inch could be run, the one and one-half probably could be --

A Yes, sir.

Q Has any determination been made as yet whether two strings can be -- whether these two strings of this two and one-sixteenth can be run in the well or not?

A Yes, sir. Parallel strings of two and one-sixteenth Hydril has been run in five and a half inch 17 pounds casing, and our well has 17 and a half pound casing.

Q You haven't run any kind of a caliper or peg in this casing to determine the I. D. of this particular casing string?

A No, sir, not a caliper, but we have run gauge rings and we run our model "D" packer.

MR. NUTTER: I believe that's all. Thank you.

MR. COUCH: Let me ask one more question. Mr. Morris, in the event it will be necessary to use different size tubing, would you -- presently, is it your thought that you would use the two and one-sixteenth for the Monument-Blaine zone and then use the

smaller tubing for the shallower zone?

A That is correct.

MR. COUCH: That's all.

MR. UTZ: Mr. Morris, can you state whether or not the well could be pumped through one and half inch Hydril?

A No, sir, I cannot.

MR. UTZ: Are there any other questions of Mr. Morris? If not, the witness may be excused.

Are there any statements in this case? If not, the case will be taken under advisement.

C E R T I F I C A T E

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 Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced typewritten transcript by me and/or under my personal supervision; the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 28th day of December, 1957,
in the City of Albuquerque, County of Bernalillo, State of New
Mexico.

J. G. Ingillo
Notary Public

My Commission Expires:

October 5, 1960.

I do hereby certify that the foregoing is
a complete transcript of the proceedings in
the above case of date 1340.
heard by me on Nov. 29 1957.
E. A. H. H. , Examiner
New Mexico Oil Conservation Commission