

BEFORE THE
Oil Conservation Commission
SANTA FE, NEW MEXICO
September 15, 1955

IN THE MATTER OF:

CASE NO. 958

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

DIRECT EXAMINATION

By MR. HARBIN:

Q What is your name, please?

A H. A. Merrill.

Q Where do you reside, Mr. Merrill?

A Roswell.

Q By whom are you employed and in what capacity?

A Sinclair Oil and Gas Company, District Geologist.

Q Have you qualified as an expert witness and testified before this Commission in the past?

A I have.

Q You are Sinclair's District Geologist at Roswell, New Mexico?

A Yes.

Q What does your district cover, what area?

A The eastern half of the State of New Mexico.

Q Does it include and cover Lea County in New Mexico?

A It does.

Q Is all of the Sinclair geological work in your district conducted under your supervision?

A It is.

Q Are you acquainted with Sinclair's No. 1 J. P. Dean well?

A Yes, I am.

(Sinclair's Exhibit No. 1 marked for identification.)

Q I hand you a plat here, Mr. Merrill, which has been marked Sinclair's Exhibit No. 1. Are you acquainted with that plat?

A Yes, I am.

Q Was that prepared under your supervision?

A Yes.

Q I notice there is an area marked on that plat in red --
What does that indicate?

A That is acreage underneath our No. 1 Dean and adjacent acreage which we believe is underlain, rather, by the Devonian formation and which is probably productive.

Q Where is the J. P. Dean well located?

A It is in the southeast quarter of the southwest quarter, Section 35, Township 15 South, Range 36 East, Lea County, New Mexico.

Q Is it in the approximate center of that quarter-quarter section?

A It is the approximate center.

MR. HARBIN: If the Commission please, I would like to offer in evidence a plat which is marked Sinclair's Exhibit No. 1.

MR. MACEY: Without objection it will be received.

Q Mr. Merrill, in testifying as to the area which is possibly productive of oil you are referring to the Devonian production, are you not?

A For the Devonian, yes.

Q In what formation was the Sinclair's Dean well completed?

A That was a Devonian completion.

Q Will you point out to the Commission the various wells located within the possible productive area which are drilling and wells where locations have been made for drilling?

A The Sinclair Oil and Gas No. 1, State 735, is drilling in the center of the southwest quarter northeast quarter of Section 26.

Q All right.

A The Humble No. 1 State "AJ" in Section 26 is approximately the center of the southwest quarter southeast quarter of Section 26.

Q By the way, do you know the depths at which those wells are presently drilling?

A The Sinclair well was drilling at 8500 yesterday.

Q The Humble well?

A The Humble well was drilling at, I will have to refer to a note here, I believe it was drilling at 7000 feet.

Q The next well?

A The next well is the Magnolia Harkrider, I believe it is 330 from the east line and 660 from the south line of the 40-acre tract comprising the northeast quarter southwest quarter, I beg your pardon, the northeast quarter southeast quarter of 34.

Q Section 34. Is that well actually drilling, do you know?

A The latest report I have it was preparing to drill ahead after D.S.T. to 5880.

Q It had reached the depth of 5880?

A Yes, it had.

Q Point out the next well which is drilling or where a location has been made.

A Our Sinclair No. 1 State 396 is in the center of the northeast quarter southwest quarter of Section 35 drilling at 4586. I believe the Magnolia No. 1 Anderson State in Section 5, Township 16, Section 37 located in the approximate center of the northwest quarter, I beg your pardon, approximate center of Lot 4, which is drilling at 9925.

Q That is Lot Four, Section 5?

A Yes.

Q Has there been another location made in the area?

A We have commenced on the --

Q What do you mean "we", Sinclair?

A Sinclair Oil and Gas Company.

Q All right.

A (Continuing) -- has staked their location in Section 36, Township 15 South, Range 36 East, in the northwest quarter of the northwest quarter, center of the tract.

Q By the way, is that to be a Devonian well?

A That is a Devonian test.

Q I don't believe I asked you to name the area which is outlined in red, but for the purpose of the record will you call off the sections or quarter sections comprising the possible productive area?

A In Township 15 South, Range 36 East, all of Section 26, all of Section 35, the east half of the northeast quarter and the southeast quarter of Section 34 in Township 16 South, Range 37 East, lots 1, 2, 3, 4, 5, 6, 7, 8 of Section 5, and lots 1, 2, 7, and 8 of Section 6.

Q Those wells which you testified to as being located in the center of the quarter quarter sections, I assume that you mean that is the approximate center?

A The approximate center.

Q You haven't measured them, have you?

A No, we certainly did not.

MR. HARBIN: I believe that is all from this witness.

MR. MACEY: Any questions of the witness? Do you have any suggested name for the pool?

A I don't believe I have at the present time.

MR. MACEY: If no questions of the witness, he may be excused.

W. J. ROGERS

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

DIRECT EXAMINATION

By MR. HARBIN:

Q What is your name, please?

A W. J. Rogers.

Q Where do you live?

A Fort Worth, Texas.

Q By whom are you employed and in what capacity?

A Sinclair Oil and Gas Company, division engineer.

Q What area do you cover as division engineer?

A East half of New Mexico, West Texas, the Texas Panhandle, North Texas and East Texas.

Q Is Lea County, New Mexico, within your district or division where you are division engineer?

A Yes, sir.

Q Have you heretofore qualified as an expert witness and testified before this Commission?

A Yes, sir.

Q Mr. Rogers, are you acquainted with Sinclair's J. P. Dean well No. 1?

A Yes, sir.

Q I believe it has been testified as to where that well was drilled, that is the quarter section. Can you tell the Commission when the well was started, how it was completed, what formation and what test?

A The well was spudded on February 24, 1955, it was drilled to a total depth of 13,910 feet. It is presently producing through

casing perforations in the interval from 13,600 to 13,725 from the Devonian formation. The well was potentialed on August 9, 1955, for a calculated 24-hour potential of 2370 barrels of 53.6 gravity oil and no water, with a gas-oil ratio of 104 cubic feet per barrel.

Q What was the approximate cost of the drilling and completing of that well?

A It has been estimated to be approximately \$350,000.

Q Do you know whether or not that is the deepest producing well in the State of New Mexico?

A To the best of my knowledge, the producing interval is the deepest.

Q You testified, did you, to the depth of the producing formation?

A Yes, sir.

Q Who are the owners of the leasehold interest in this well Sinclair has?

A Sinclair has 14/24ths of 7/8ths; Mr. Hold has 7/24ths of 7/8ths; Mr. Hammond has 3/24ths of 7/8ths working interest.

Q I notice in the possible producing area as outlined in red on Sinclair's Exhibit No. 1, on the south part thereof, there are several lots rather than quarter-quarter sections. Do you know the acreage contained in those lots?

A It is my understanding they have approximately 50 acres, something in excess of 40.

Q A little more than a quarter-quarter section?

A Yes, sir.

Q Mr. Rogers, Sinclair has made an application here for an order establishing a uniform well spacing pattern insofar as the

Devonian formation is concerned, and have asked that the Commission enter an order directing that the wells be drilled in the center of the quarter-quarter sections, with an allowance of 150 feet tolerance to avoid surface structures or obstructions. What is your recommendation in reference to that spacing pattern?

A It is my recommendation that the well be drilled in the center of the 40-acre tracts or 660 feet from the boundaries of the governmental lots.

Q Which lots contain approximately 50 acres?

A Yes, sir.

Q How about the 150 feet tolerance on the quarter-quarter sections?

A I think a tolerance of 150 feet should be granted for surface obstructions.

Q In any direction?

A Yes, sir.

Q In your opinion, will one well drain effectively 40 acres?

A Yes.

Q Or the 50-acre lots?

A Yes, sir.

Q In your opinion, Mr. Rogers, if the wells are drilled in the approximate center of the quarter-quarter sections, or within 660 feet of the governmental lots, with 150 feet tolerance, in your opinion will that protect correlative rights and prevent waste?

A Yes, sir.

Q Wells have already started drilling or had started drilling, locations had been made before this application had been filed; for instance, the Magnolia well had started drilling within 300

feet of the line. I believe some of the others were a little off-center. Do you recommend that an exception be made in the order as to those wells which had already been located or drilling started?

A Yes, sir.

MR. HARBIN: I believe that is all.

MR. MACEY: Any questions of the witness?

MR. MALONE: May it please the Commission, Ross Malone for the Ohio Oil Company.

CROSS EXAMINATION

By MR. MALONE:

Q Mr. Rogers, for what reason do you consider it desirable that different rules be applicable to this pool than to the other Devonian pools, with reference to the application of Sinclair Oil and Gas Company for an order establishing a uniform well spacing pattern?

A I believe if we are going to have 40-acre proration units we should have 40-acre spacing.

Q So that you would conclude it was equally desirable for the same rule to be applicable to all Devonian pools?

A All fields or Devonian pools which do not already have rules in existence.

MR. MALONE: Thank you.

MR. MACEY: Anyone else have a question of the witness? Are you going to have any more witnesses as to the allowable?

MR. HARBIN: No, that is all.

MR. MACEY: My question pertains to the allowable that might be assigned the Magnolia well located in Section 5 of 16, 37, the acreage contained in that lot according to our map is about

fifteen acres --

A (Interrupting) Excuse me, which --

MR. MACEY: The southwest offset to the Dean well. Is it your recommendation that the allowable be granted to that well in the same proportion that the 15 acres bears to 40 acres; in other words, they would have approximately one and a quarter times the normal allowable for a well completed in that reservoir.

A I think that would be reasonable, yes, sir.

MR. MACEY: That would, under present allowable that would be very close to 400 barrels a day. Anyone else have a question of the witness?

MR. RICHARDSON: I don't wish to question the witness, but I would like to make a statement on behalf of Magnolia Petroleum.

MR. MACEY: If no further questions of the witness, we will excuse the witness. Do you have anything further?

MR. HARBIN: No, sir.

(Witness excused.)

MR. RICHARDSON: Bill Richardson, Petroleum Engineer with Magnolia in Tatum. I would like to make the following statement in behalf of Magnolia:

It is recommended that the oversized lots which have previously been referred to as 50, 51, and which I understand are even 53 acres, that these lots south of the township line be exempt from the requirement of drilling in the center of the lots and the operators be able to drill 660 feet south of the township line.

MR. HARBIN: That is agreeable to Sinclair.

MR. MACEY: Anyone else have a statement they would like to make in connection with this case?

MR. MALONE: May it please the Commission, Ross Malone representing the Ohio Oil Company. The Ohio Oil Company is opposed to a change in the regular statewide spacing rules which would otherwise be applicable to the Sinclair Dean discovery well. It is the owner of leases both within and without the probable producing area as it has been delineated by the witness. It is particularly opposed to the recommended change insofar as the requirement that the well be located in the center of the subdivision, for the reason that in the opinion of Ohio, in the development of these steep Devonian structures an operator should be permitted to make the best location on his drill-site available to him under the general rules. From a geological standpoint, to force him to move 450 feet downdip will result in proving and will prevent him from recovering the oil that he is entitled to beneath his own lease. This would not be true, of course, if the reservoir mechanics of this field were of the expanding gascap type, but the engineer studies which have been made of all the deep Devonian field in New Mexico to date, on which we have any producing history, indicates that there is in each instance an active water drive. With this condition existing it is obvious that even with a location 330 feet from the property line the operator with a downdip lease will be unable to recover that portion of the oil which originally underlaid the property which he controls in the reservoir, and he will be required or prevented from his participation in the oil in the reservoir. To increase the area from which oil cannot be recovered from a given well bore and perhaps even occasionally result in the drilling of a dry hole on the deep structure of the type with which we are here dealing is both inequitable and not in

the interest of conservation.

For these reasons the Ohio opposes that portion of the recommendation.

MR. HOWARD: Mr. Howard, Shell Oil Company. Unfortunately, we have no acreage in this new pool, but we are considerable operators in the State and we are naturally interested in the field rules that are adopted. We want to join with the statement, that is, just a general operator not directly involved here, with the statement made by Mr. Malone on the idea that unless some very unusual conditions are shown which would differentiate a given field from the state rule, that the state rules should apply.

MR. MACEY: Anyone else?

MR. HARBIN: If the Commission please, I would like to make this statement. It costs a great amount of money to drill these Devonian wells to the formation where the Dean well is producing. We think that there should be uniform development of this area. In order for there to be uniform development, it will be necessary that the well be drilled within the center or near the center with 150 feet tolerance; otherwise, if wells are drilled 330 feet from the line, we will, in effect, have 10-acre spacing instead of 40-acre spacing. Since this is a new field and we do not know where the productive limit of the field will be, and no one will know until there has been more drilling.

It seems to me that if every person drills their wells in the center of the quarter-quarter section with 150 feet tolerance or within 660 feet of the governmental lots, that that would be equitable to everyone. We don't know whether there would be any quarter-quarter sections where oil could not be produced in paying quantities

if a well was drilled in the center or within a hundred feet of the center. We believe that to have uniform development of this are that our application should be granted.

MR. MACEY: Anyone else have a statement in this case? If nothing further, we will take the case under advisement.

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C E R T I F I C A T E

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 26th day of September, 1955.


Notary Public - Court Reporter

My Commission Expires:

June 19, 1959.