

MAIN OFFICE CCC

1958 OCT 12 AM 8:15

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1514

TRANSCRIPT OF HEARING

OCTOBER 2, 1958

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
OCTOBER 2, 1958

IN THE MATTER OF: :

CASE 1514 Application of Continental Oil Company for :
approval of a unit agreement. Applicant, in: :
the above-styled cause, seeks an order ap- :
proving its Tonto Deep Unit Agreement em- :
bracing 2,000 acres, more or less, of Feder- :
al and state lands in Township 18 South, :
Range 34 East, Lea County, New Mexico. :
----- :

BEFORE:

Mr. Elvis A. Utz, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. UTZ: The next case on the docket will be Case 1514.

MR. COOLEY: Case 1514. Application of Continental Oil
Company for approval of a unit agreement.

MR. HINKLE: I am Clarence Hinkle of Hervey, Dow & Hinkle,
appearing on behalf of the Continental Oil Company. We have one
witness I would like to have sworn.

MR. UTZ: Are there any other appearances to be made?
If not, you may proceed.

(Witness sworn)

G. H. SWENUMSON,

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, please.

A G. H. Swenumson. S-w-e-n-u-m-s-o-n.

Q By whom are you employed?

A By the Continental Oil Company.

Q How long have you been employed by Continental?

A A little over ten years.

Q In what capacity?

A I am division geophysicist of Continental's Roswell division.

Q Are you a graduate geologist?

A Yes, I am.

Q Where did you graduate from?

A I graduated from Ohio Wesleyan University in the spring of 1948.

Q Have you ever testified before the Oil Conservation Commission?

A Yes, I have.

MR. HINKLE: Any questions about his qualifications?

MR. UTZ: His qualifications are acceptable.

Q Are you familiar with the area in Southern New Mexico where the proposed Tonto Deep unit area is located?

A Yes, sir.

Q Are you familiar with the survey which has been made by the Continental Oil Company of the area?

A Yes, I am.

Q Has that been geologic or seismographic?

A It was a seismographic survey.

Q Are you familiar with the application which has been filed by Continental for approval of the Unit?

A Yes.

Q What area does the proposed Unit cover?

A It covers an area in Lea County, Township 18 South, Range 34 East, in the following Sections: the E/2 of Section 21; all of Section 22; the W/2 of the NW/4, and the SW/4 of Section 23; all of Section 27; and the NE/4 of Section 28.

Q That's in Township 18 South, Range 34 East?

A That's right.

Q How many acres of Federal land are involved in the area?

A 340 acres of Federal.

Q State land?

A 1680.

Q Any fee land involved?

A There are none.

Q I believe you stated that a geophysical survey had been made of this area by the Continental Oil Company?

A Yes, sir.

Q Have you prepared a plat or map which shows results of the seismographic survey?

A Yes, I have.

Q Refer to Continental's Exhibit 1, and explain to the Commission what it shows.

A This Exhibit depicts a structure near the top of the Devonian formation as mapped by this geophysical survey.

Q And that is the interpretation, the result of the survey of Continental?

A That's right.

Q Does the geophysical picture as shown by the plat, Exhibit 1, or contours cover all or substantially all of the Unit area?

A Yes, they do.

Q What formations or probable oil producing formations do you expect to encounter in this area?

A The lower Bone Springs at about 10,300 feet, and the Wolfcamp at 10,600, Pennsylvanian at 12,000 feet, and the Devonian at 14,300 feet.

Q Are you familiar with the proposed Unit Agreement, copies of which have been filed with the Commission?

A Yes, sir.

Q Is the Continental Oil Company designated as the Unit operator?

A Yes, they are.

Q Are all of the formations from the top to the ground, straight down, covered by the Unit?

A No, they are not; only the formations below a depth of

6,000 feet from the surface.

Q In other words, the Unit specifically excepts all formations from the surface down to 6,000 feet?

A That's true.

Q Is this Unit the same, or substantially the same form as Unit Agreements heretofore approved by the Commission, --

A Yes.

Q -- by the Commissioner of Public Lands, and the U.S.G.S.?

A Yes, sir.

Q Do you know whether or not this particular form has been approved by the U.S.G.S.?

A Yes, it has.

Q And also by the Commissioner of Public Lands?

A Yes, sir.

Q Under the terms of the Unit, is a well required to be drilled?

A Yes, a well must be commenced within six months of approval of this Unit.

Q Has that well already been commenced?

A The well was spudded on September 10, 1958.

Q Can you give the Commission the location of the well?

A The location is 1,850 feet from the West line and 330 from the South line of Section 22.

Q Do you know what range it's drilling at the present time?

A Yesterday it was drilling at 4,473.

Q Under the terms of the Unit, is it required to be drilled to any certain depth?

A Under the terms of the Unit, it must be drilled to test the Devonian formation, but is not required to be drilled deeper than 15,000 feet from the surface.

Q Is this well being drilled at the present time with the understanding of all of the potential parties or interested parties to the Unit Agreement?

A Yes, sir, it is.

Q And with a view of having the Unit Agreement approved?

A Yes, sir.

Q Has the Unit Agreement been signed by all of the necessary parties at the present time?

A It has been signed by more than 98 percent of the interested parties, and we expect the remainder to sign it.

Q Now, in the event of a discovery of unitized substances within the Unit area in paying quantities, state whether or not, in your opinion, the Unit Agreement would be in the interest of conservation and prevention of waste.

A Yes, sir, it would.

Q Now, in that same event, state whether or not, in your opinion, it would be in the interest of obtaining the greatest ultimate recovery of unitized substances.

A Yes, it would.

MR. HINKLE: We would like to offer in evidence Continental's Exhibit No. 1.

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

MR. HINKLE: That's all.

MR. UTZ: Are there any questions of the witness?

MR. STAMETS: Is there a drilling to a discovery clause in the Unit Agreement?

A Drilling to a --

MR. HINKLE: To a lesser depth, yes.

A Yes.

MR. STAMETS: That's all.

MR. COOLEY: Mr. Swenumson, just to clarify this, I want to get it straight. This Unit Agreement covers everything below 6,000 feet from the surface?

A Yes, sir, everything below that depth.

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

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Swenumson, would you state for me which you consider the closest closing contour on Exhibit A?

A These contours are not labeled. It would be the -- looking at Section 28, it would be the contour within the NE/4; that contour, and following it around the structure. In other words, --

Q You mean the outside contour in the NE/4 of Section 28?

A That one right there, yes, sir.

Q Does that contour close in the NE/4 of Section 22?

A The NE/4 of 22; that north edge of the Unit outline is controlled by a fault, we believe, which is -- greatly bears upon the worth of this prospect, and if the fault is as we draw it, the fault would be the closing north edge, and the contour then would --

Q And you are depending on the fault for your closure?

A We have some closures on dip, but we are depending upon the fault.

Q How much -- the closure on the next contour would be the same, wouldn't it?

A The next one outside would be slightly larger, of course.

Q I mean the next one inside.

A Yes.

Q So if the fault doesn't make a closure, well then, your closure would be from the fault to the high in Section 22, would that be correct?

A I don't believe I understand --

Q If the fault doesn't actually affect closure on the two contours we have discussed, how much closure would you have between the top of the fault structure on this formation and the high in Section 22?

A If it were not for the fault, the closure would be, oh, some place between that closed high in Section 22 and the next

lower contour; it would be larger than that closed high in Section 22.

Q How many feet of closure would you think you would have?

A Without the fault, we have over a hundred feet without the fault.

MR. UTZ: Any other questions?

MR. HINKLE: I might ask him one more.

REDIRECT EXAMINATION

BY MR. HINKLE:

Q Does the seismogram survey indicate a fault there?

A Yes, it does.

Q As a rule, can you usually determine a fault by seismographic work?

A The survey indicated a fault on seismogram, which isn't the last word. Sometimes it proves out that the fault is as you map it, sometimes it is moved, sometimes it isn't there.

Q Usually you can determine that a fault exists by seismographic work?

A Oh, yes, pretty well.

MR. HINKLE: That's all.

MR. UTZ: Anything further in this case? Any other statements? If not, the witness may be excused and the case will be taken under advisement.

(Witness excused)

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

WITNESS my Hand and Seal, this, the 9th day of October 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. A. Ingels
Notary Public

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Ex. Inst. Hearing of Case No. 1519, heard on 10-27, 1958.

heard by me on _____, 1938.
Ernest A. Mc..., Examiner
 New Mexico Oil Conservation Commission

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1514

TRANSCRIPT OF HEARING

OCTOBER 2, 1958

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
Phone CHapel 3-6691

2

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
OCTOBER 2, 1958

IN THE MATTER OF: :

CASE 1514 Application of Continental Oil Company for :
approval of a unit agreement. Applicant, in: :
the above-styled cause, seeks an order ap- :
proving its Tonto Deep Unit Agreement em- :
bracing 2,000 acres, more or less, of Feder- :
al and state lands in Township 18 South, :
Range 34 East, Lea County, New Mexico. :
----- :

BEFORE:

Mr. Elvis A. Utz, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. UTZ: The next case on the docket will be Case 1514.

MR. COOLEY: Case 1514. Application of Continental Oil
Company for approval of a unit agreement.

MR. HINKLE: I am Clarence Hinkle of Hervey, Dow & Hinkle,
appearing on behalf of the Continental Oil Company. We have one
witness I would like to have sworn.

MR. UTZ: Are there any other appearances to be made?
If not, you may proceed.

(Witness sworn)

G. H. SWENUMSON,

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

3

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, please.

A G. H. Swenumson. S-w-e-n-u-m-s-o-n.

Q By whom are you employed?

A By the Continental Oil Company.

Q How long have you been employed by Continental?

A A little over ten years.

Q In what capacity?

A I am division geophysicist of Continental's Roswell division.

Q Are you a graduate geologist?

A Yes, I am.

Q Where did you graduate from?

A I graduated from Ohio Wesleyan University in the spring of 1948.

Q Have you ever testified before the Oil Conservation Commission?

A Yes, I have.

MR. HINKLE: Any questions about his qualifications?

MR. UTZ: His qualifications are acceptable.

Q Are you familiar with the area in Southern New Mexico where the proposed Tonto Deep Unit area is located?

A Yes, sir.

Q Are you familiar with the survey which has been made by the Continental Oil Company of the area?

4
A Yes, I am.

Q Has that been geologic or seismographic?

A It was a seismographic survey.

Q Are you familiar with the application which has been filed by Continental for approval of the Unit?

A Yes.

Q What area does the proposed Unit cover?

A It covers an area in Lea County, Township 18 South, Range 34 East, in the following Sections: the E/2 of Section 21; all of Section 22; the W/2 of the NW/4, and the SW/4 of Section 23; all of Section 27; and the NE/4 of Section 28.

Q That's in Township 18 South, Range 34 East?

A That's right.

Q How many acres of Federal land are involved in the area?

A 340 acres of Federal.

Q State land?

A 1680.

Q Any fee land involved?

A There are none.

Q I believe you stated that a geophysical survey had been made of this area by the Continental Oil Company?

A Yes, sir.

Q Have you prepared a plat or map which shows results of the seismographic survey?

A Yes, I have.

Q Refer to Continental's Exhibit 1, and explain to the Commission what it shows.

A This Exhibit depicts a structure near the top of the Devonian formation as mapped by this geophysical survey.

Q And that is the interpretation, the result of the survey of Continental?

A That's right.

Q Does the geophysical picture as shown by the plat, Exhibit 1, or contours cover all or substantially all of the Unit area?

A Yes, they do.

Q What formations or probable oil producing formations do you expect to encounter in this area?

A The lower Bone Springs at about 10,300 feet, and the Wolfcamp at 10,600, Pennsylvanian at 12,000 feet, and the Devonian at 14,300 feet.

Q Are you familiar with the proposed Unit Agreement, copies of which have been filed with the Commission?

A Yes, sir.

Q Is the Continental Oil Company designated as the Unit operator?

A Yes, they are.

Q Are all of the formations from the top to the ground, straight down, covered by the Unit?

A No, they are not; only the formations below a depth of

6,000 feet from the surface.

Q In other words, the Unit specifically excepts all formations from the surface down to 6,000 feet?

A That's true.

Q Is this Unit the same, or substantially the same form as Unit Agreements heretofore approved by the Commission, --

A Yes.

Q -- by the Commissioner of Public Lands, and the U.S.G.S.?

A Yes, sir.

Q Do you know whether or not this particular form has been approved by the U.S.G.S.?

A Yes, it has.

Q And also by the Commissioner of Public Lands?

A Yes, sir.

Q Under the terms of the Unit, is a well required to be drilled?

A Yes, a well must be commenced within six months of approval of this Unit.

Q Has that well already been commenced?

A The well was spudded on September 10, 1958.

Q Can you give the Commission the location of the well?

A The location is 1,850 feet from the West line and 330 from the South line of Section 22.

Q Do you know what range it's drilling at the present time?

A Yesterday it was drilling at 4,473.

Q Under the terms of the Unit, is it required to be drilled to any certain depth?

A Under the terms of the Unit, it must be drilled to test the Devonian formation, but is not required to be drilled deeper than 15,000 feet from the surface.

Q Is this well being drilled at the present time with the understanding of all of the potential parties or interested parties to the Unit Agreement?

A Yes, sir, it is.

Q And with a view of having the Unit Agreement approved?

A Yes, sir.

Q Has the Unit Agreement been signed by all of the necessary parties at the present time?

A It has been signed by more than 98 percent of the interested parties, and we expect the remainder to sign it.

Q Now, in the event of a discovery of unitized substances within the Unit area in paying quantities, state whether or not, in your opinion, the Unit Agreement would be in the interest of conservation and prevention of waste.

A Yes, sir, it would.

Q Now, in that same event, state whether or not, in your opinion, it would be in the interest of obtaining the greatest ultimate recovery of unitized substances.

A Yes, it would.

8

MR. HINKLE: We would like to offer in evidence Continental's Exhibit No. 1.

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

MR. HINKLE: That's all.

MR. UTZ: Are there any questions of the witness?

MR. STAMETS: Is there a drilling to discovery clause in the Unit Agreement?

A Drilling to a --

MR. HINKLE: To a lesser depth, yes.

A Yes.

MR. STAMETS: That's all.

MR. COOLEY: Mr. Swenumson, just to clarify this, I want to get it straight. This Unit Agreement covers everything below 6,000 feet from the surface?

A Yes, sir, everything below that depth.

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

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Swenumson, would you state for me which you consider the closest closing contour on Exhibit A?

A These contours are not labeled. It would be the -- looking at Section 28, it would be the contour within the NE/4; that contour, and following it around the structure. In other words, --

Q You mean the outside contour in the NE/4 of Section 28?

9
A That one right there, yes, sir.

Q Does that contour close in the NE/4 of Section 22?

A The NE/4 of 22; that north edge of the Unit outline is controlled by a fault, we believe, which is -- greatly bears upon the worth of this prospect, and if the fault is as we draw it, the fault would be the closing north edge, and the contour then would --

Q And you are depending on the fault for your closure?

A We have some closures on dip, but we are depending upon the fault.

Q How much -- the closure on the next contour would be the same, wouldn't it?

A The next one outside would be slightly larger, of course.

Q I mean the next one inside.

A Yes.

Q So if the fault doesn't make a closure, well then, your closure would be from the fault to the high in Section 22, would that be correct?

A I don't believe I understand --

Q If the fault doesn't actually affect closure on the two contours we have discussed, how much closure would you have between the top of the fault structure on this formation and the high in Section 22?

A If it were not for the fault, the closure would be, oh, some place between that closed high in Section 22 and the next

lower contour; it would be larger than that closed high in Section 22.

Q How many feet of closure would you think you would have?

A Without the fault, we have over a hundred feet without the fault.

MR. UTZ: Any other questions?

MR. HINKLE: I might ask him one more.

REDIRECT EXAMINATION

BY MR. HINKLE:

Q Does the seismogram survey indicate a fault there?

A Yes, it does.

Q As a rule, can you usually determine a fault by seismographic work?

A The survey indicated a fault on seismogram, which isn't the last word. Sometimes it proves out that the fault is as you map it, sometimes it is moved, sometimes it isn't there.

Q Usually you can determine that a fault exists by seismographic work?

A Oh, yes, pretty well.

MR. HINKLE: That's all.

MR. UTZ: Anything further in this case? Any other statements? If not, the witness may be excused and the case will be taken under advisement.

(Witness excused)

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

WITNESS my Hand and Seal, this, the 9th day of October
1958, in the City of Albuquerque, County of Bernalillo, State of
New Mexico.

J. A. Impella
Notary Public

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Habeas Corpus hearing of Case No. 1519, heard at New Orleans, La. 12-3-55. 10-5-55.

Ernest L. [Signature], Examiner
New Mexico Oil Conservation Commission