BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 9, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Roger C. Hanks for special pool rules, Lea County, New Mexico.

Case No. 4161

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SEP 10 1969

SANTA FE, NEW MEXICO

Hearing Date JULY 9, 1969 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
Bill Wells	Pan American	Ft. Worth
Gordon D. Regan	" "	" "
Boyle Kelly	White Gilliam Hocha Kelly	S. F
Roger Hanks	Roger Hanks	Midland
W. T. Probandt		
J. F. Sperling	Mcdrall Seymour Sperling Kellahin & Hanks	albuquerque
Charles F. Hinkle	Roger Hanks	Roswell
Nuel Belknap	RW Byram	Santa Fe
E. D. Mechem	Texaco	Socorro
Billy R. Dawson	TEXACO	Hobbs
Tom L. Ingram	Ingram	Roswell
W. B. Simmons	Mobil	Midland
Jason W. Kellahin	Kellahin & Fox	Santa Fe
Ralph H. Vinzy	Sam Boren Oil Co	Midland
David Vickery	Jennings Coppedge	Roswell
Bill Kellahin	Kellahin & Stevens	Santa Fe

MR. NUTTER: Next case is 4161.

MR. HATCH: Case 4161, application of Roger C. Hanks for special pool rules, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle from Hinkle, Bondourant and Christie appearing on behalf of Roger Hanks.

We have two witnesses we would like to have sworn, Mr. Probandt and Mr. Hanks.

(Witnesses sworn.)

(Whereupon, Applicant's Exhibits 1 through 6 were marked for identification.)

MR. HINKLE: These are the official exhibits that have been marked. There's another copy. You want to take the stand?

MR. PROBANDT: Yes, sir.

MR. HINKLE: There are six exhibits -- go ahead and sit down -- that have been identified, and Exhibit Number Three is on the wall here, this large exhibit.

W. T. PROBANDT

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name and your residence?

A Bill Probandt, Midland, Texas.

MR. NUTTER: How do you spell your last name?

A P-R-O-B-A-N-D-T, Probandt.

MR. NUTTER: And your first name is Bill?

A Bill, initials W. T.

Q (By Mr. Hinkle) Are you associated with Roger Hanks?

A I am.

Q And in what way?

A I am a partner with Mr. Hanks, as well as being a geologist.

Q Have you previously testified before the Commission?

A I have not.

Q State briefly your educational background and your experience as a geologist?

A I have a BS Degree in geology from the University of Texas. I have an MS Degree in geology from Texas Tech. I have approximately ten years' experience in petroleum and related fields, mostly in New Mexico and West Texas.

Q Are you familiar with the development of this -- that Roger Hanks has engaged in in Southeastern New Mexico?

A Yes, sir.

Q Are you familiar with the application of Roger Hanks in this case?

A Yes, I am.

Q Have you made a study of the particular area that's involved in this application?

A Yes, I have.

Q With all the wells that have been drilled?

A Yes.

Q Have you also made a study of the Bough "C" producing areas in Southeast New Mexico?

A Yes, sir.

Q What is Roger Hanks seeking to accomplish by this application?

A Seeking the promulgation of special pool

rules for the North Mescalero-Cisco Pool, including the temporary spacing of a hundred and sixty acre well, and eighty-acre allowable.

Q Have you prepared, or has there been prepared under your direction, certain exhibits for introduction in this case?

A Yes, sir.

Q Refer to Exhibit Number One, and explain what this is and what it shows?

A Exhibit Number One is an index map with colored dots affixed to critical wells within a two-mile radius of the affected area. The legend is in the left upper center of the map. Brown, San Andres; blue, Cisco; green, Pennsylvanian, and orange Devonian. There are arrows further keying the Hanks wells.

Q What is the yellow acreage?

A The yellow acreage indicates Hanks' holdings, or the acreage directly affected in this area.

Q That's oil and gas lease holdings?

A That's correct.

Q There's one area there which is the south

half southeast of 10 which is not solid yellow. What does that indicate?

A This is an eighty-acre tract held by Mobil Oil Corporation which would be included in the temporary hundred and sixty acre spacing if so ordered by the Commission for dedication to the Fina State Well, the southernmost well indicated.

Q Now, refer to Exhibit Two and explain that?

A Exhibit Two is a sub-surface map on the top of the Cisco line, is contoured on fifty-foot intervals. It traces the Cisco development through the critical deep wells in the immediate area.

Q What does this structure indicate?

A It indicates to me the northwest trace of the main Mescalero structure, and indicates that -- as shown by blue shading, that the Cisco is present where shown, mainly over the crest of the structure.

Q Do you have any further comments with respect to Exhibit Two?

A No, sir.

Q Exhibit Three has been placed on the wall here. Will you refer to it and explain it?

A As so stated by Mr. Hanks, this is a link cross section running through the well that penetrates the Cisco cone within the immediate area of interest, and the cross section has been run so as to include all wells that are traced on the sub-surface map, and the area of interest that extends to the cross sections has been constructed using electric log copy.

The first correlative structure marker is in the Wolf Camp. The interval is between this structural marker and the marker bed below the Cisco, and further, we have color red and blue showing the Cisco zone itself with porousity. There's further --

Q What does the red indicate and the blue indicate?

A The blue is indicative of the lime or carbonate buildup in the Cisco, the gross extent of sand, whereas the red indicates the net extent of the porousity within the main Cisco zone.

Completion attempts have been made in four wells in here. The completion attempts on the wells here were unsuccessful. Section 8 --

Q Which wells were successful and which were unsuccessful?

A All right, the first two as shown here were unsuccessful.

Q What is that, what well is it?

A Cities Service Number 1-BL.

Q That's the first well shown on Exhibit Three?

A That is correct, sir. The second one is the Cabine Exploration White State 1-A, the second well. Completion attempts were not successful in either one of these.

Q All right; what about the third well?

A The third well is the Roger C. Hanks Fina State Number One, the third well in progression from "A." This well was completed as a Cisco producer. The fourth well, Roger C. Hanks Zapata State, the fourth well in succession, was also completed from the same correlative interval in the Cisco as a producer. The fifth well, Cabine

State A-1, did not attempt a completion.

Q Why wasn't it -- why didn't they attempt to complete it?

A I don't know, sir.

Q All right; and it was plugged and abandoned?

A Yes, sir; I believe its been converted to a cement well.

Q All right.

A We have three additional wells, two Fina and one Texaco. These are off the main structure, but still deep enough to have cut the zone, so are indicated here. There was no completion attempt. I would surmise that there was not sufficient showing of oil porousity to lead them to believe a commercial producer could be made.

Q What does this Exhibit Three indicate as a whole, show?

A It indicates the presence of the Cisco zone and the character of it, as well as tracing the massive porousity, the buildup present where the Cisco is developed to its optimum extent. It further shows that the zone is not present, and

we would suppose commercial, by tracing the position of the zone off structure where it tends to change.

Q Do you have any further comments with respect to Exhibit Three?

A No, sir.

MR. NUTTER: Mr. Probandt, before you leave the exhibit, would you explain what the green is on the last four wells, and the brown on three of them?

A Yes, I will. As you leave the main, shall we say the most obvious and optimum area of development where the Cisco has gross lime, gross porousity, you are passing through a zone where the -- you are passing into a zone where the zone tends to assume a different character, a different identity, therefore you are getting into another realm of deposition, and these other beds come in as markers.

I have attempted to carry my correlation effectively away from the definite area here by illustrating some marker beds and adding these brown, green and yellow colors so that they'll somewhat stand out and give us other zones that may be

correlated back into this and further tie our Cisco correlations.

MR. NUTTER: They are simply some additional marker beds on those --

A That's right.

MR. NUTTER: -- four wells there that don't occur on the other wells?

A They occur, but I would say that we are passing from one sequence of deposition into another, with the transition zone being here, and whereas this one may be developed here. Maybe there's an additional zone, as there are here, here or here, and to the best of my ability, I would say that the marker beds are traced as definitely correlated --

MR. NUTTER: The transition zone that you indicated you have, your transitional zone would be in that Cabine State K Number 1?

A Yes, sir. Please notice the double circles around the first five wells here. This indicates that the zone was present that had -- should have oil in the first one there and completed in the second two. It was not tried, though, remember, in the fifth well.

MR. NUTTER: Now, this well that your log

refers to as the Cabine State K Number 1 is the fifth well on the cross section?

A Yes, sir.

MR. NUTTER: Is that the well that's identified as the Number 2 Well in the northeast quarter of the southwest quarter of Section 11?

A Yes, sir. If you would notice on the lease map, there are several leaseholds indicated, Ray, Cabine, Wellmack. However, the Wolf Camp or Cisco test came under this, too. It's the most recent log on it, most legible and recent log.

MR. NUTTER: So while it's identified as Number Two on the plat, it's the Cabine State K Number 1 that's indicated on the log?

A Yes, sir.

MR. HINKLE: That's all. Wait, just sit down. They may want to ask you some questions. That's all the direct of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Now, Mr. Probandt, on your Exhibit Number One, you have the two Cisco wells identified in blue

and then down at the south end of the pool you've got the two Pennsylvanian wells. Where are those wells producing from?

A They are producing from zones that are distinct from another occurrence to the north or south. They would be under the Mescalero Canyon, and possibly there's a strong buildup. The structure is higher there. We are getting another zone buildup.

Q That has nothing to do with this Cisco --

A That's correct.

Q -- formation?

A Yes.

Q It's a completely different zone in the Pennsylvanian?

A Yes, sir.

Q Was any attempt made to complete in the Cisco zone in this Cabine State K 1?

A No, sir.

Q Well, do you think that there's porousity in that well that would --

A I see some porousity in -- on this particular

log. I believe it's a radioactivity or gamma-nutra log.

Q That's the red indications --

A Yes, sir.

Q -- red marks on there that you have indicated no completion attempt?

A That's right, sir. Now, I refer you to this red shading on the right hand side of the log. This does carry over into this zone. It's a -- somewhat thinner, but that's about all I could say.

Q Were you going to testify, or will Mr. Hanks testify as to what you feel is the gross pay here and the net pay and what your net feet of porousity would be in this --

A I would like to defer to Mr. Hanks.

MR. NUTTER: I see; are there any further questions of Mr. Probandt?

MR. HINKLE: No.

MR. NUTTER: You may be excused.

(Witness excused.)

ROGER HANKS

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name and your residence?

A Roger Hanks, Midland, Texas.

Q You are the applicant in this case?

A That's right.

Q Have you previously testified before the Oil Conservation Commission?

A I have.

Q Your qualifications as a petroleum geologist are a matter of record with the Commission?

A That's correct.

Q You heard the testimony of Bill Probandt. Do you agree with his testimony?

A I do.

Q He's indicated that two wells have been drilled by you in Section 10. Will you give briefly the history of the Number 1 and Number 2 wells?

A The Zapata State well to the northeast northeast of 10 was a re-entry of a well that was

previously drilled in 1957 by Zapata offshore --

Q How deep was that well?

A The well was bottomed in the top of the Devonian and I went in, reamed the well and cemented, strung five and a half casing at nine thousand and sixty-six, I believe and misplaced the hole and --

Q When did you go into the hole, approximate date?

A May of 1968, and completed the well, perforated approximately twenty feet using the old Zapata log, which was an electric log, and it's not exceptionally good information. However, we had a fairly good stem test in the Zapata and had to decide whether to run casing in the hole or not, because they tested it and got gas to surface and three thousand feet of oil, six thousand feet of water, I believe, and twenty-nine hundred sixty pounds of bottomhole pressure, and re-tested after they run their log and decided to -- elected not to sink pipe, and the well was abandoned and the lease was picked by the Ralph Lowe estate, and I believe there was even an application to re-enter this hole for the San Andres, and by Jack McClelland,

I believe, of Roswell, and he went into the hole and drilled out the plugs and never did do any work on this thing, so we washed to bottom, washed it to nine thousand, and --

Q You got a farmout from the Ralph Lowe estate?

A Yes, I made a farmout from Ralph Lowe. We completed the well on downhole by hydraulics, installing a cold pump and a -- various operations along that line, and --

Q When was it completed?

A The well was completed in June of 1968, and I've forgotten the potential class.

Q What was the potential for it?

A I've forgotten. Seems like it's a hundred and twenty-five barrels of oil and eight hundred barrels of water, but I -- it escapes me. The well was -- acted like it had fairly good reservior energy, and over a period of four hundred days now, which is a year and a month, it has produced twenty-eight thousand barrels of oil and approximately two hundred fifty-seven thousand barrels of water.

MR. NUTTER: What were those figures again,

please?

A Twenty-eight thousand oil, two hundred fifty-seven thousand water.

MR. NUTTER: Thank you.

Q (By Mr. Hinkle) Did you take the pressure at the time you completed the well, bottomhole pressure?

A No sir, I did not. My -- I used my information that Zapata had. The well had not been produced, the zone had not been produced anywhere up to there, so we didn't see that it was necessary to take a test, buildup test until later, and then in November of '68 I contacted American Petrofina and negotiated a farmout in the southeast quarter of Section 10 --

Q That's the north half of the southeast quarter?

A Yes sir, northeast southeast of Section 10. We then drilled a well from the grassroots to approximately nine thousand, eighty feet, and during the course of drilling this well we encountered the Zapata zone as shown by the log and ran a drill stem test over this zone. However, when we got our drill stem test out, we found out that -- that we had actually covered two

zones of porousity, so we had gas to surface there in five minutes and about nine hundred feet of oil and about three thousand feet of water and twenty-six hundred -- twenty-six hundred twenty-two pounds of bottomhole pressure, so the bottomhole pressure, we tended to discount it because it was not a true bottomhole pressure of the Zapata zone, since it was covering another above, slightly above it.

Q You mean as related to the original pressures that were taken in the Number One?

A Yes, sir. I would tend to say that it was really of no value, other than the fact that there was pressure somewhere, but we couldn't tell you exactly where. So we ran casing on the well and completed in the zone below the Zapata, a zone in the Zapata zone and one above it, and over a short interval there, and potentialed the well for a hundred thirty-two barrels of oil, and I gave --

Q Three --

A Three hundred forty-nine barrels of water. And that well has, since we completed it in March, its produced sixty-nine hundred barrels

of oil and sixty-three thousand barrels of water.

Q Have you since made bottomhole pressure tests of these wells?

A Yes sir, I have. I have made a recent -- June the 23rd, I believe. That's in the Exhibit Number Five.

Q Now, have you made a study of what might be the reservoir pressure of abandonment of these two wells?

A Well, I'm not an engineer, and I hired the firm of Bailey, Sipes, Williamson and Runyan, who have represented me before, and to make a study of this pressure data that was granted -- given to them, and Mr. Sipes, I'm sorry to say, is in Houston today and could not appear and to explain --

Q Refer to Exhibit Four.

A -- his formula. What Mr. Sipes has shown here --

Q That's on Exhibit Four?

A Yes sir, is that with the original bottomhole pressure and the current bottomhole pressure that was run June 23rd, which is Exhibit Number Five, he's showing that -- the relatively abandonment

conditions on a hundred sixty-acre spacing versus eighty-acre spacing. In effect, he's saying that abandonment conditions, that due to the economical rate, at seventeen barrels of oil and a hundred nineteen water and the fluid viscosity and the formation capacity and the wellbore pressure, that this is the absolute economical limit of these wells.

He -- he is showing that based on a hundred sixty acre spacing that we will abandon this well at an optimum condition of five hundred five PSI. Based on eighty-acre spacing, we will abandon the same wells at four hundred eighty-two PSI.

Q Does this indicate that you would recover substantially the same amount of oil off one well drilling on a hundred sixty acres as you would on drilling eighties?

A Yes sir, it does.

Q Now, Exhibit Number Five refers to that, is that the --

A This is a copy of the bottomhole pressure chart that I hired Coleman Engineering of Hobbs,

New Mexico, to run on June the 21st when the Zapata well was off. I pulled the tubing and ran a forty-four hour buildup test on it, and we got twelve hundred seventy-one pounds of bottomhole pressure.

Q How much drop does this indicate from the original pressure that was taken when the well was drilled?

A Twenty-nine sixty to seventeen hundred pounds in just about exactly one year.

Q What does that drop indicate?

A It indicates, with the amount of water that it's producing, that it's -- it's a high water cut reservoir and very little oil, at those ratios.

Q It's going down rather rapidly?

A Yes, sir. I would tend to discredit the twenty-six hundred pounds that we got on the Fina in February, because that would give us a tremendous drop. That's why I said that I think the twenty-six hundred pounds represents that -- some other zone, and is not a true indication of this particular -- the massive zone. It looks like to

me that with that effective porousity, there's approximately twenty feet of zone throughout, that that's consistent, that it could be considered to be the productive interval, that this line is the most massive. This is thicker here, but it looks like to me this is the most effective, and you wouldn't get over twenty feet.

Q From this information, have you formed any opinion as to whether the well would effectively and efficiently drain any more than a hundred and sixty acres?

A Yes sir, I think it will effectively drain --

Q Have you made a study of the economics of drilling in this area on a hundred sixty and eighty acres?

A Yes sir, I have. I have -- under my direction, Mr. Sipes prepared for me a -- using his engineering methods, a calculation of the stock tank, barrels of oil in place --

Q Are you referring to Exhibit Number Six?

A Excuse me, yes sir, Exhibit Number Six, showing the economics of the Mescalero Cisco. He's

giving the ultimate recovery of stock tank barrels of oil with the information that he has at this time, seventy three thousand barrels of oil, two wells in the field, thirty-six thousand, five hundred barrels per well. He's given the oil at three sixteen. Gross revenue, economical life of two years. Operating cost of fifteen hundred dollars a month, and these are hydraulic operations.

Q Is that a realistic figure, the fifteen hundred dollars per month?

A I'm sorry to say it is, yes. The salt water disposal and the prorated lifting cost of pulling these fixed casing pumps is exactly -- this figure is out of my books. The development cost is -- included in this development cost is the well's prorata part of salt water disposal, which is running in any case right at twenty thousand dollars a well, so we have seventeen miles of disposal line over in the northeast northeast of 11.

Q That's where you are disposing of the water for both of these wells at the present time?

A There's a PVC line that connects those two wells and goes -- gravities over to the new --

no-pit pee, and we dispose of the water there. The development cost in this case would be only for the Fina, because the cost on the Zapata was considerably less because it was a re-entry. I don't exactly have those figures with me, but it's less than a hundred thousand dollars, somewhere less than that.

Q This would indicate a net loss of a hundred forty-four thousand, six hundred forty. Is this on both wells or just the one well?

A No sir, this is on both wells, because he gave a total barrels on the wells, so it would be a net loss for both wells, assuming both wells were drilled, so the loss will be less than that if his reserve figures are correct.

Q If you had had these figures at the time you completed the number one well, would you have drilled the number two well?

A No, I would not, no. These are things we don't know. We drill for them.

Q Now, what are your recommendations to the Commission with the -- with respect to the adoption of the special pool rules for this area?

A I was asking that the Commission grant a temporary spacing of a hundred sixty acres to these wells, spacing being -- or the acreage being the governmental quarter section, a well in the center of any forty, with a hundred and fifty foot tours.

We are asking this for a year to determine -- I intend to make some more pressure studies on my Fina when it is down, when the pump goes out on it, and see if we can contemplate in some way --

Q And justify the drilling of any additional wells?

A Yes, sir. The purpose here is that I think at this time we really don't have enough information on the production history of the Fina, that it has been long enough, and I have experimented with various pumps and chokes and what not, but I think that we will conclusively know in a year.

Q You feel at the end of the year you will know conclusively --

A Yes, sir.

Q -- because of the production history and

additional information which would -- may be accumulated on possible other drilling?

A Yes, sir.

Q As to whether one well would effectively and efficiently drain one hundred sixty acres?

A Yes, sir.

Q Have you contacted or had any contact with the offset owners with respect to this application?

A I have. I have contacted seventeen of the offset operators in this area, and we have --

Q Have you had any response from them?

A As of this morning, I have had eight responses, eight for and --

Q Is it nine total?

A Nine total. Eight for the application, and Fina's objecting. They have eighty acres.

Q Did Fina give any reason why they objected?

A I don't think so, they just object. I don't have the letter, do you have it? This letter was received in my office on the --

Q Are you referring to the letter from --

A This is from --

Q -- Fina?

A -- American Petrofina. The letter was received on July the 1st, 1969. "Dear Mr. Hanks: Reference is made to your letter of -- dated June 18th whereby you requested American Petrofina's permission to communitize the subject lease with the south half of the southeast quarter of Section 10, 10,30, 2, Lea County, New Mexico, previously owned by Mobil Oil Corporation. This will serve to advise that American Petrofina does not consent to the communitization of these two leases under the terms you requested, and therefore we intend to proceed in preparing an assignment under the basic terms and obligations as set forth in our format agreement dated November 8, 1968."

Q And that's the format agreement under which the Number 2 well was drilled?

A Yes, sir.

Q Now, does Petrofina own any other acreage in this area except that 80?

A No sir, that's all they have.

Q Who are the ones that you obtained waivers

from or communication from indicating approval of the application?

A Mobil Oil Corporation, an offset operator; Hilario Oil and Gas, offset operator; Getty Oil, offset; Del Lee, Incorporated, offset; Southern Royalty, Reading and Bates, offset operators; Charles B. Read, offset operator; Ralph Lowe estate, offset operator, and --

MR. HINKLE: We would like to have these letters filed. I don't think it's necessary to -- do you want them all as one exhibit, or --

MR. NUTTER: They can just be a matter of record, without being an actual exhibit.

MR. HINKLE: All right.

Q (By Mr. Hinkle) Now, Mr. Hanks, in your opinion, will the adoption of special pool rules along the lines that you have recommended be in the interests of conservation and prevention of waste?

A Yes, I think it will.

Q In your opinion, will this prevent the drilling of unnecessary wells and tend to protect correlative rights?

A Yes, sir.

Q Do you have any further information you'd like

to give to the Commission with respect to this application?

A No sir, not at this time.

MR. HINKLE: We would like to offer into evidence Exhibits One through Six.

MR. NUTTER: Applicant's Exhibits One through Six will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 6 were offered and admitted in evidence.)

MR. HINKLE: That's all the direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Hanks, you were referring to the pressure drawn on this reservoir?

A Yes, sir.

Q What were the original pressures in the Zapata well and how were they determined?

A By drill stem tests, twenty-nine sixty.

Q 2960 on drill stem tests?

A Yes, sir.

Q That's on the Zapata --

A Yes, sir. They ran a test and then re-tested. In both tests, the bottomhole pressures

were the same, and they were flat and failed to indicate --

Q Do you know the interval that was drilled -- drill stem tested when they got that twenty-nine sixty pounds?

A It's -- do you have it with you? Bill has it. I'll give it to you in just a second, Dan, he has it. The first test was from 8867 to 8944, which was a 77-foot interval. Then they came back and re-tested from 8876 to 8920, isolating the zone, with 44 feet in that interval.

Q And your porousity in the well is evidently from about -- well, you tell me where the porousity is.

A Okay, just a minute. From 8915 to 40.

Q And your perforated interval then is --

A Wait a minute, I'm looking on the gas detector form there. 8900 to 8925, that's approximate.

Q So the drill stem tests covered a -- substantially the area of porousity?

A Yes sir, both of them, and they re-tested.

Q Where are you perforating in that well,

Mr. Hanks?

A From 8900 to 8922, two shots perforated.

Q Now, has any other pressure ever been run on the well except the pressure that you ran, that you had Coleman Engineering run?

A No, sir. That was just only last month.

Q So your forty-four hour buildup pressure then was twelve hundred seventy-one pounds on that well?

A Yes sir, and we have two tests to go by in 1957, that twenty-nine sixty, and that's all we have.

Q Now, there aren't any other wells in the area that have produced from this zone and aren't producing now, are there?

A No, sir.

Q So the drawdown from twenty-nine sixty to twelve hundred seventy-one pounds has been the result of thirty-four thousand, nine hundred barrels of production?

A Yes sir, that's the cumulative of the two, plus the three hundred something barrels of water.

Q Right; you are making approximately ten to

one barrels of water to oil?

A Yes sir, about that ratio, yes sir. Volumetrically, I don't think you can put that much fluid under either one of those wells as far as the calculation on the fluid that has already produced. They have been draining --

Q Now, you mentioned that you didn't think that the drill stem test pressure on your Fina State Number 1 was indicative of the reservoir conditions because the drill stem tests covered too wide an area and produced from another zone?

A Yes, sir.

Q What was the interval, what was the DST on that one?

A The drill stem test of the Fina State was from 8856 to 8925.

Q And your shutin pressure on that one again?

A The shutin pressure was -- excuse me, in the initial was 2647, the final was 2622.

Q 2647 was the initial, and the final SIP --

A Yes sir, and it's 2622.

Q And what did that drill stem test yield?

A Gas to surface in six minutes, loaded at the rate of two hundred twenty thousand cubic feet of gas per day, decrease on test of -- too small to measure. Recovered seventeen hundred feet of fluid, a hundred fifty feet of drilling mud, six hundred ninety feet of 48.6 gravity oil, eight hundred sixty feet of salt water.

Q Now, back to that test that Zapata had --

A Yes, sir.

Q What were the recoveries on those two -- on those two drill stem tests?

A Yes sir, I'll give it to you right now. Drill stem test Number 4, 8867 to 8944.

Q All right.

A In the tube, two hours; shut-in thirty minutes, very strong blow immediately; gas in four minutes at the rate of 675 MCF; blow decreased gradually throughout test; recovered 2200 feet of free oil, 4400 feet of salt water.

Q Do you have that other drill stem test from 8876 to 8920?

A Yes, sir; you want the pressures on that?

Q I've got the pressures. Well, the 2960,

the final shut-in was on which one of the tests?

A On the 2815, Dan, is where it is. This is on the first test. Now, the second test --

this is from 8876 to 8920; tool on that, two hours and thirty minutes; strong blow of air immediately, decreasing throughout the test; gas to surface in thirty minutes; gas volume measured, too small; recovered 300 feet of oil and gas, cut drilling fluid, and 5800 feet of oil and gas, cut salt water, with the 2960 pounds bottomhole pressure.

Q That's the one then on the 2960?

A Yes, sir; now, the interval of the Zapata drill stem test as shown on this log, we can see it right here on the Fina --

Q This is the Fina well?

A Fina.

Q This is the Fina, and this is yours, on the Zapata.

A The interval of that drill stem test covered the porousity -- the porousities on up here. The zone of this drill stem test on the Fina was from 8856 to 8925. That one just barely got into it and it covered the porousity right in here, which

gave up some oil on the test.

Q What is the perforated interval in the Fina well?

A Here, right here and right here.

MR. HINKLE: A little louder, so the reporter can hear you.

Q (By Mr. Nutter) Do you have those?

A Yes sir, I do. 8970 to 80, two shots preferred; 8917 to 35, two shots preferred. I don't see the other zone there. 8890 to 8901, that's the upper zone. That was in the government test.

Q So you actually have two sets of perforations on that well which are below the area of the drill stem test and one set of performations that is in the area of the drill stem tests?

A Right. I selectively completed those zones with a bridge plug to isolate them and ran production tests on each zone and then co-mingled them as the Cisco, which it is a part of that same common source. However, the Zapata is not completed in any of those.

Q The reason I was being careful to get this pressure information and these perforated

intervals in here, Mr. Hanks, is because your one zone has depleted down to -- your one well has depleted down to thirteen hundred pounds reservoir pressure, isn't that what your drill stem tests show?

A From virgin pressure.

Q All right, from virgin pressures, right?

A Right.

Q And it's either one or the other, you don't have pressure in one or it's a failure to communicate across the reservoir?

A Yes, sir. I have suffered from that same problem in trying to determine which one it's coming from. However, we will draw a bottomhole pressure when this well is off again, but you see, I might -- I won't really know if that is a true bottomhole pressure from the middle, lower or upper zone as compared with the Zapata.

Q Perforated intervals are not really equivalent, anyway.

A No sir, they are not.

Q Not completely equivalent?

A We have to correlate the logs to see the

interval.

MR. NUTTER: Are there any further questions of Mr. Hanks?

Q (By Mr. Nutter) Mr. Hanks, this new law that the legislature recently passed and went into effect on July the 1st related to spacing or proration units with divided mineral interests provides that the -- that any commission order that increases the size of a standard spacing or proration unit for a pool or extends the boundary of such a pool shall require dedication of acreage to existing wells in the pool in accordance with the acreage dedication requirements for said pool.

We haven't made any determination as to just how this thing should be applied, but what is your suggestion as to the dedicated acreage for these two wells that are in the pool at the present time?

A I would -- my recommendation is that we -- as I requested in my order, that we dedicate the northeast quarter of Section 10 and the southeast to the -- excuse me, the northeast quarter of Section 10 to the Zapata and the southeast quarter of Section 10

to the Fina State.

Q Your intention then is to communitize it to the 80 in that southeast quarter to form a standard unit?

A Yes, sir. I have permission from Mobil to communitize in the event the Commission grants this request.

MR. NUTTER: I see, thank you. Are there any further questions?

MR. HINKLE: That's all I have.

MR. NUTTER: That witness may be excused.

(Witness excused.)

MR. NUTTER: You have nothing further in this case, Mr. Hinkle?

MR. HINKLE: That's all.

MR. NUTTER: Does anyone have anything to offer in Cause Number 4161?

We'll take the case under advisement.

I N D E X

STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, JERRY MARTINEZ, Notary Public in and for the County of McKinley, 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 and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Notary Public

My Commission Expires:
January 24, 1970.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4167, heard by me on 2/9, 1969.

Examiner
New Mexico Oil Conservation Commission