BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 31, 1976

EXAMINER HEARING

IN THE MATTER OF:	)	
Application of Exxon Corporation for a unit agreement, Lea County, New Mexico.	)	CASE 5660

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission:	William F. Carr, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico
For the Applicant:	Clarence Hinkle, Esq. HINKLE, BONDURANT, COX & EATON Attorneys at Law Hinkle Building Roswell, New Mexico

I N D E X

EXHIBIT INDEX

MR. STAMETS: We will call Case 5660.

MR. CARR: Case 5660, application of Exxon Corporation for a unit agreement, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle of Hinkle, Bondurant, Cox and Eaton appearing on behalf of Exxon and we have one witness and five exhibits.

MR. STAMETS: The witness will stand and be sworn, please?

(THEREUPON, the witness was duly sworn.)

MR. HINKLE: Mr. Examiner, at the time that this application was filed the unit agreement had not been finalized and we have the three copies which were supposed to be filed with the application.

MR. STAMETS: Okay, we will put those in the case file.

JOHN THOMAS

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q. State your name, your residence and by whom you are employed?

A. My name is John Thomas, I live in Midland, Texas and

I'm employed by Exxon Company U.S.A.

Q. You are a geologist by profession?

A. That is correct.

Q. Have you previously testified before the Commission?

A. No, sir, I haven't.

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

A. I have a Bachelor's and Master's degrees from the University of Missouri from the Missouri School of Mines in 1963 and 1965 respectively, after which I went to work for Humble Oil and Refining Company, now Exxon Company U.S.A. For the past eleven years I have worked in both exploration and production assignments, both domestic and foreign and currently I am working in an exploration assignment in Midland, Texas as a geologist.

Q. Have you made a study of the area that is involved in this application?

A. That is correct.

Q. Are you familiar with all of the wells that have been drilled in the area?

A. That is correct.

MR. HINKLE: Are his qualifcations sufficient?

MR. STAMETS: They are.

Q. (Mr. Hinkle continuing.) Have you prepared or has there been prepared under your direction certain exhibits for

introduction in this case?

A. Yes, sir.

Q. And they are the ones which have been marked one through five?

A. Yes, sir.

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

A. Exhibit One is a structure map on top of the Hunton formation or Silurian formation. The light blue lines represent subsea contours on the top of this formation. The heavy blue lines represent the faults interpreted.

On the plat you will see a brown outline, that is an outline of the proposed unit area. Within the unit area in Section 14 is the well that had been drilled by Exxon Company U.S.A., the Fairview Mills Federal No. 1.

This map was drawn after the completion of this well and is subsequent to the drilling of the well.

Q. It is based on the geology and the geophysical?

A. That is correct. We took the information gained from the drilling of the well, both the logs, log analyses, the dip-meter logs and reprocessed seismic data to come up with this current interpretation.

Q. The blue line, the solid blue line through the proposed unit, what is that?

A. That is a fault interpreted from reprocessed data

and from wellbore information and I might point out, Mr. Commissioner, when these were vacuum framed it appears in looking at these now where some of the overlays have slipped, the fault is designed to be on the low side of the fault, on the down-thrown side and it may appear on your copy to be either in the fault itself or the high side to the fault.

MR. STAMETS: You are talking about the well?

A. Correct.

MR. STAMETS: Should it be to the right or --

A. To the west, the north being up at the top of the map, to the left.

MR. STAMETS: Let's clarify this one time. The well should be on the west side of the fault?

A. That is correct.

Q. (Mr. Hinkle continuing.) Did Exxon know about this fault at the time it was drilled?

A. No, we did not.

Q. Do you have any other comments with respect to Exhibit One?

A. No, sir.

Q. Refer to Exhibit Number Two which is a log of the well which has been drilled in the proposed unit and explain that and give a brief history of the well?

A. Again we are looking at a Schlumberger borehole compensated sonic log. Chronologically the well was spudded

in March of 1974 and reached a total depth of twenty thousand, nine hundred and fifteen feet in August of 1974.

Referring to the log, I will be very briefly working from the bottom to the top. The formations tested, the well again bottomed at twenty thousand, nine hundred and fifteen feet in Precambrian rocks. Immediately overlying this particular sequence is the Ellenburger formation and let it suffice to say that this formation was tested and recovered gas too small to measure in formation waters. The formation was interpreted as being tight, noncommercial and plugged. We then came up to the Silurian interval that is within the interval seventeen thousand and thirty-six feet to eighteen thousand, two hundred and eighty-six feet. Within that interval we tested four zones. These are represented by the numbers one through four and they are chronological.

Zone one was perforated and tested at a rate of eleven million cubic feet of gas per day and at approximately five hours into the test formation waters encrouched into the wellbore and killed the well. The interval was squeezed six separate time using approximately fifteen hundred sacks of cement.

I might point out at this point, the caliper which is represented on the lefthand side of the log by the straight line and at approximately seventeen thousand, three hundred and sixty-five feet you will see a deviation from a norm, a

five barrels of water, interpreted to be formation water with a slight show of gas. The interval was squeezed with four hundred sacks of cement.

Also in support of an interpreted fracture system, those four intervals, the total squeeze volumes comprised some twenty-four hundred sacks of cement and if this is interpreted into annular volume, if you take the six-and-a-half inch hole behind the five-inch production casing, the twenty-four hundred sacks of cement equates to some twenty-four thousand feet of annular volume, so the formation in this particular instance consumed an abnormally large amount of cement.

Q. What is the present status of the well?

A. Presently the well is shut in. I might add, Mr. Hinkle, that after squeezing the Silurian formation we did come up to the Wolfcamp formation and perforated the interval at fourteen thousand, eight hundred feet.

I'm sorry, correction, let me go on up. The perforations were at thirteen thousand, seven hundred and ninety-seven feet, to thirteen thousand, eight hundred and five feet in the Wolfcamp.

The calculated open flow of this interval was five point seven million cubic feet of gas per day and a completion was taken in this zone and in answer to your question, the well is presently shut in as this interval will not produce against line pressure.

Q. What was the cost of the well, what has been the cost to date?

A. The actual well cost was in excess of two point eight million dollars and including all of the testing that was incurred in the wellbore, plus the surface facilities, Exxon Corporation has three point two million dollars in the well. The production from the Wolfcamp interval amounts to some three hundred and forty million cubic feet of gas at a value of about a hundred and seventy-two thousand dollars, certainly not a commercial well.

Q. Refer to Exhibit Three and explain what that shows?

A. Exhibit Number Three is a structural cross section and again this is indexed on our structural plat, being Exhibit Number One. It is a southwest-northeast cross section through the wellbore and again I might add, it also is supported by seismic line that is also run along that particular interval represented on your Exhibit Number One. It should be self-explanatory. The symbols used in the Wolfcamp at approximately ten thousand, five hundred feet subsea is a gas symbol, producing symbol we use and those symbols below that are gas shows indicated in the Morrow and in the Silurian and the Ellenburger.

Again, the fault referred to in Exhibit Number One is represented by the heavy blue line running up and down adjacent to and east of the Fairview Mills wellbore.

Q. Now, refer to Exhibit Number Four and explain that?

A. Exhibit Number Four is a land plat and I might add it has attachments with that in that we could not get all of the information on the first page of the exhibit.

Q. Is Exhibit Four the same as Exhibit A and B attached to the unit agreement?

A. That is correct. I might point out that the exhibit, being Exhibit Number Four, shows the proposed unit area and the acreage involved. The unit area is comprised of some three thousand, eight hundred and forty acres of which three hundred and twenty acres are fee land and three thousand, five hundred and twenty acres are Federal land.

Also I would like to point out that Sections, 11, 12, 13 and the south half of fourteen have expiration dates of May 1, 1976. That is some two thousand, two hundred and forty acres out of a three thousand, eight hundred and forty acre unit.

Q. That means that you have to start the unit well before May 1st in order to save these leases?

A. That is correct.

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

A. No, sir.

Q. Refer to Exhibit Five and explain what this is?

A. Exhibit Five is a letter from the United States

Department of the Interior, Geological Survey, to Exxon Company U.S.A. whereby they agree to the proposed unit as submitted to them.

Q. Does this letter provide the type of unit to be used?

A. Yes, sir.

Q. Specifically it says you should use a Federal form of agreement for unapproved areas with modification for the inclusion of fee lands and modifications as follows?

A. That is correct.

Q. Are you familiar with the proposed unit agreement?

A. Yes, I am.

Q. That has been filed with the Commission?

A. Yes, sir.

Q. And is it the regulation form referred to with the modifications for fee land?

A. That is correct. I might add, Mr. Hinkle, that in page nine, section nine, under the drilling clause, in the proposed unit it calls for a sidetrack hole. In fact, consideration is being made to drilling a brand new well within the unit area and it has not been clarified at this point whether a sidetrack hole or a new well will be drilled.

Q. Refer to the unit and state specifically what section nine of the unit provides with respect to the drilling of the well?

A. All right, again referring to both Exhibits Number One and Exhibit Number Three, the unit agreement calls for a sidetrack hole, it being initiated at approximately --

Q. You mean by entering the present well?

A. Entering the present wellbore, yes, sir.

Q. Whipstock and --

A. And squeezing off the perforations presently open and drilling out the plugs necessary to reach the depth of about fifteen thousand, five hundred feet. This is in the Morrow shales. At that point the seven-and-five-eighths inch casing would be cut and the hole sidetracked building normal angles, two degrees per hundred the first five hundred feet and maintaining approximately a ten degree hole thereafter. We would be directionally drilling the well to a point to the northeast of the present well symbol on Exhibit Number One.

Q. I believe you stated that there may be a possibility that instead of this that they will drill a new hole?

A. That is correct. Mechanically it is a compromise situation and an evaluation is being made as to how to handle this.

Q. Who is designated as operator in the unit, if anyone?

A. Currently within the model form submitted there is no operator designated, a third party is working the problem and that being In-Search Company which is the exploration

division of Lone Star Gas.

Q. And if they decide to be the operator their name will be inserted?

A. That is correct.

Q. Do you have any further comments with respect to the form of the unit agreement?

A. No, sir.

Q. I believe you stated that time is an element here?

A. Very much so and again reitering we will have approximately some sixty percent of the unit expiring as of May 1, that being two thousand, two hundred and forty acres of the unit unless drilling operations are commenced prior to that date.

Q. Do you contemplate that all of the leasehold interests within the unit area will be committed to the unit?

A. Yes, sir.

Q. In your opinion if this application is approved will it be in the interest of conservation, prevention of waste and protect correlative rights?

A. Yes, sir, it will.

MR. HINKLE: We would like to offer Exhibits One through Five.

MR. STAMETS: Exhibits One through Five will be admitted.

(THEREUPON, Applicant's Exhibits One through Five were admitted into evidence.)

MR. HINKLE: That's all of our direct.

MR. STAMETS: We would like a point of clarification here and Mr. Hinkle you may offer this or possibly Mr. Thomas.

The Commission order would normally designate the applicant as the unit operator and this one would do so unless we were to be notified immediately that the other --

MR. HINKLE: Well, I think that would be all right because you can simply change and designate somebody else for approval if you want to.

MR. THOMAS: Well, if it is agreeable to the Commission because Exxon Company will not, categorically we will not be operator of the unit. If you would like to put us down and at a later date we would be allowed to change that.

MR. HINKLE: This is off the record.

(THEREUPON, a discussion was held off the record.)

MR. STAMETS: We'll go back on the record. Are there any other questions of this witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. STAMETS: Anything further in this case? We will take the case under advisement.

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5660 heard by me on 3-31, 1976.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212