BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

February 16, 1955

IN THE MATTER OF:

CASE NO. 822 - Regular Hearing

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
ROOMS 105, 106, 107 EL CORTEZ BUILDING
TELEPHONE 7-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 16, 1955

IN THE MATTER OF:

Application of Stanolind Oil and Gas Company for approval of a non-standard gas proration unit.

Applicant, in the above-styled cause, seeks an order approving the creation of a 320-acre non-standard gas proration unit consisting of the NW/4 of Section 5 and the NE/4 of Section 6, Township 24 South, Range 37 East, Lea County, New Mexico, in exception to Rule 5(a) of the Special Rules and Regulations for the Jalmat Gas Pool, as set forth in Order R-520.

Case No. 822

BEFORE:

Honorable John Simms, Jr.
Mr. E. S. (Johnny) Walker
Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 822.

MR. SMITH: May it please the Commission this application of Stanolind Oil and Gas Company for the non-standard proration unit has been filed for the purpose of establishing a 320 acre proration unit consisting of the northwest quarter of Section 5 and northeast quarter of Section 6, Township 24 South, Range 37 East in the Jalmat Oil Pool.

At the outset, I would like to point out one or two things in the regulations which the Commission may bear in mind during the course of Mr. Hiltz' testimony. Order No. R-520 in Case No. 673 has some language in it which is a little bit cloudy. I would

like for the Commission to have in mind what I consider to be my interpretation of its applicability during the course of the proceedings.

In the first place Rule 2 provides in part that "any well drilled to and producing from the Jalmat Gas Pool prior to the effective date of this order at a location conforming to the spacing requirements effective at the time said well was drilled shall be considered to be located in conformance with this rule." Rule 5 - incidentally, these rules come under a special topic, "Special Rules and Regulations for the Jalmat Gas Pool" - Rule 5(a) defines a standard gas proration unit as one consisting of six hundred forty acres or rather six hundred thirty-two to six hundred forty-eight contiguous surface acres substantially in the form of a square which shall be a legal subdivision of the U. S. Public Land Surveys with the well located at least nineteen hundred eighty feet from the nearest property lines; provided, however, that a non-standard gas proration unit may be formed after notice and hearing by the Commission, or under the provisions of Paragraph (b) of this Rule.

Passing on to the third paragraph of Rule 5(a), we have the following language "In establishing a non-standard gas proration unit the location of the well with respect to the two nearest boundary lines thereof shall govern the maximum amount of acreage that may be assigned to the well for the purposes of gas proration; provided, however, that any well drilled to and producing from the Jalmat Gas Pool, as defined herein, prior to the effective date of this order at a location conforming with the spacing requirements effective at the time said well was drilled shall be granted a tolerance not exceeding 330 feet with respect to the required distances

from the boundary lines. The maximum acreage which shall be assigned with respect to the well's location shall be as follows:

Location	Maximum Acreage
660' - 660'	160 acres
660' - 1980'	320 acres

Then Paragraph (b) provides for Administrative approval of non-standard gas units.

Now, the point I am trying to make is that I think there may be said a misnomer in terming these various locations or limits as non-standard gas proration units. In effect it is a subdivision of a standard gas proration unit and, as I construe the Rules and as I conceive the intent of the Commission to be in writing, the Rule is that you get your relief or, if you conform with these spacing requirements that are tabulated here, that it is unnecessary to get any relief from the Commission. That brings us to the particular matter we have before us which involves two points that wouldn't be covered by this latter category. First, we go across the section line and in the second place, the location of the well would restrict us to 160 acres.

R. G. H I L T Z

having been first duly sworn testified as follows:

DIRECT EXAMINATION

By: MR. SMITH:

Q Will you state your name please?

A R. G. Hiltz.

Q By whom are you employed?

A Stanolind Oil and Gas Company.

Q In what capacity?

A I am a Petroleum Engineer.

Q You have testified before the Commission before as Petroleum Engineer, have you not?

A Yes, sir, I have.

MR. SMITH: Are his qualifications as an engineer acceptable to the Commission?

MR. MACEY: They are.

Q You have prepared certain Exhibits or have had them prepared under your supervision, have you not, with reference to this matter?

A Yes, sir, I have.

(Marked Stanolind Oil & Gas Company's Exhibit No. 1 for identification)

Q I direct your attention to what has been marked Exhibit One. What does Stanolind's Exhibit One purport to represent, Mr. Hiltz?

A This Exhibit No. One is a map of a portion of the Jalmat Field in the area of the proposed non-standard gas proration unit. All of the wells on this map which are producing from the Jalmat Gas Pool defined by the Commission are encircled in red. The pool boundary as established by the Commission is indicated by a red line. The proposed proration unit is colored in orange and existing proration units, as information is available to us, are shown by the orange squares or rectangles, as the case may be, encircling each of the appropriate gas wells.

Q Now, the red line marking the field limits you have reference to is the red line appearing on the west side of the plat?

A Yes, sir, that is true.

Q In other words, you are showing only the western boundary with relation to the requested proration unit?

A I believe I had better clarify. The line showing the field boundary is on the east side of the map and the major portion of the Jalmat lies west of that line.

Q Directing your attention again to Exhibit One, I would like for you to testify to the Commissioner as to the various other proration units that are now in existence surrounding the proposed unit.

A As indicated on Exhibit One, they are shown by the solid orange lines around each unit. I think it is readily apparent that the majority of the units in each area show no definite uniformity as to size or shape of the units. They vary from forty acres to a maximum of one hundred sixty in that immediate area.

Q Do you have any other comments to make with reference to Exhibit One? A No, I do not.

Q Do you have an Exhibit Two that has been prepared?

A Yes.

(Marked Stanolind Oil & Gas Company's Exhibit No. 2 for identification)

Q Directing your attention to Exhibit Two and what does it purport to represent?

A Exhibit Two is simply a map of the same area generally showing the structure in that area on top of the Yates Formation and indicating thereon the trace of a cross-section which we will discuss later.

Q Where is the well located in the proposed unit?

A The well to which we propose to assign this acreage for gas proration purposes is 1980 feet from the east line and 660 feet from the north line of Section 6, Township 24 South, Range 37 East.

Q When was the well completed?

A It was completed as dual oil gas completion in May of 1952

with oil being produced from the Queens formation underlying the Jalmat Gas Pool and gas being produced from the Jalmat Gas Pool as defined by the Commission. The well which is Stanolind's C. Meyers "B" No. 11 on initial test had an absolute open flow of about thirteen million cubic feet per day against a line pressure of 600 pounds indicating an initial deliverability of ten million thousand MCF per day. In completing that well it was not stimulated in any way other than any effect that might be achieved by perforating the wall on its initial completion.

Subsequent to that time we had an additional deliverability test taken on the well in June 1954 which indicated that the well at that time had a deliverability of 1616 MCF per day against a line pressure of 851 pounds and was indicated to have an absolute open flow potential at that time of 2620 MCF per day.

Q Are there any other wells on the proposed three hundred twenty acre unit?

A No, sir, there are no other wells on the entire three hundred twenty acres.

Q Directing your attention again to Exhibit Two, is there any significance to the contours that are reflected thereon with respect to the continuity of the field or the prospects of productivity within the 320 acre proposed unit?

A Our objective in presenting that Exhibit is primarily to show the proposed position of this unit in relation to the other producing gas wells in the field and insofar as production may be any criteria for production in that field, it shows that the proposed acreage is comparable in position to the other gas producing acreage in the field.

Q You are familiar with the order on which this field is operated and I believe that the Commission has found that one well will drain 640 acres in the findings reported in the order, is that correct?

A Yes, sir, that is correct.

Q Do you have any other comments to make at this time about Exhibit Two?

A No, sir, I do not.

Q Do you have Exhibit Three?

A Yes, sir, I do.

(Marked Stanolind Oil & Gas Company's Exhibit No. 3 for identification)

Q What does it purport to represent?

A Exhibit Three is a cross-section, the trace of which is indicated on our Exhibit No. Two, showing radio-activity logs which were taken on wells that were completed in the Jalmat Gas Pool or the Langlie-Mattix Oil Pool and as indicated on the trace of the cross-section. The objective in submitting the cross-section is simply to demonstrate that the producing formation defined in the Jalmat Gas Pool is readily identifiable and easily correlated over the entire area which the cross-section purports to show. There are some differences in the characteristics of the pay from one area to another. It shows the continuity of the pay and shows there is no impermeable barriers throughout the entire area. Hence there would be no barriers to communication to areas involved in this unit.

Q Does the proposed unit cross the section line?

A Yes, sir, it does.

Q The well location I believe you have already testified about. Why is it necessary that we have this unorthodox unit?

A There are several reasons. The first is that, in accordance with order 520 a standard gas proration unit in this pool comprises 640 acres. Since this proposed unit would contain only three hundred twenty acres, it is by that term then unorthodox. Secondly, the proposed unit does cross a section line and the location of the well itself does not conform strictly to the provisions outlined in Paragraph Five of Rule 520.

Q Is the three hundred twenty acre proposed unit all under one lease?

A Yes, sir. The 320 acres is a single basic lease with common working interest throughout.

Q Does the acreage in your opinion have continuous communication throughout that entire area?

A Yes, sir, the area is contiguous and continuous and I believe that there is adequate communication throughout.

Q There is only one well at present, that would mean that the acreage would have to be assigned to that particular well other than communitizing with the other tracts of land?

A Yes, sir. That is right. Since there are no other wells on the proration unit there is no manner in which the acreage can be assigned for allocation purposes. Since the well is a dual completion it isn't practical to attempt to pool a portion of that lease with a portion of the leases owned by other operators in the same section. I think it is conceded by members of the industry that to attempt to pool leases for only one formation where a dual completion is involved presents administrative difficulties that it is impractical to do so.

Q All of the acreage is within the limits of the Jalmat Gas Pool?

A Yes, sir. All the acreage is within the limits of the pool

as established by the Commission.

Q Was the well drilled and completed in accordance with existing rules at the time of completion?

A Yes, sir, it was. It was drilled in May of 1952. I believe the rules governing the drilling of gas wells at that time were statewide rules.

Q With reference to the production of the wells that are in the vicinity of the proposed unit, what do you know concerning their completions and the depths at which they are completed?

A We have attempted to obtain as much information as possible relative to the productivity of the acreage in the surrounding area. I think it is readily apparent from looking at our Exhibit No. 1 that the area is virtually surrounded except to the north, northeast, and east by wells which are now completed as gas wells in the Jalmat Pool.

We have further examined what information has been made available to us on other wells which would give us a further clue as to whether or not the acreage to the east and northeast is or does contain producible hydro-carbons.

In that respect we have examined some information available on our R. Olsen Meyers Number Two, a Jalmat, Langlie-Mattix, dual oil gas completion in the southwest quarter of Section 5, as far as the Jalmat Gas Pool is concerned the gas completion is now officially, of course, a gas well and is carried on the Jalmat Gas Pool.

Then moving to the East, I might call the Commission's attention to Stanolind's Meyers B Number Two which is located in the southwest quarter of the southwest quarter of Section 4. When an attempt was initially made to complete this well as a gas well in the Jalmat Pool

it was acidized with about ten thousand gallons of acid and the productivity following that test was about 23 MCF per day. Those operations were carried to conclusion in July of 1954. The well was temporarily abandoned or at least closed in, however, later that year with the refined technique of sand oil fracing being developed, we went back into that well and treated it with twenty thousand gallons of oil and thirty thousand pounds of sand and on a twenty-four hour test following that treatment, the well indicated an initial open flow of 1125 MCF per day. So, that would certainly indicate that, even though the field or the producing formation may be tight in that portion of the field, certainly with proper application of the techniques that are now available to us, they can be made to produce or give up gas.

We also have examined some information that was available to us from Scout tickets on certain of the Texas Company's wells in the east half of Section 5. First, I would like to make reference to the Texas Company's Young No. 1 and from scout ticekts in our files we note that that well was drilled initially in 1936. From the drilling record on that well during operations leading to completion, I noted the following information, that on October 12, 1936, this well had a slight show of gas while drilling in the vertical from twenty-six hundred fifteen feet to 2625 feet. On October 13, 1936, while drilling at 3025 feet there was an estimate of about half million cubic feet of gas per day. Then on October 20, 1936, at this same total depth there was an indication that they had lost some tools in the hole and were fishing and there apparently was gas blowing from the hole and they estimated the rate to be about three million cubic feet per day; following that on November 3, 1936, while drilling

at 3080 feet, the report I see indicates an increase in this gas production at 3042 to 3045 feet but again the volume was estimated at three million a day. All of those indicated intervals are within what is now accepted by the Commission as being in the Jalmat Gas Pool and would indicate to me that that area of the field has some recoverable or had some recoverable gas at that time and that possibly with the application of techniques we now have that a commercial gas well could be made.

Moving north to the Texas Company's Young No. 2, we show that during the drilling of that well in 1944, that there was a show of gas in the interval 3052 to 3054 and the volume of gas was estimated to be one million cubic feet per day. This volume however dropped to a rate of three hundred thousand cubic feet a day after two hours and then the gas was killed I assume by drilling fluids in order to go ahead with the drilling operations. That gas show too was from the Yates and would indicate there were recoverable hydro-carbons in that portion of the field.

Q In your opinion from your analysis of all the data that you have referred to and have had available, in your opinion, is the entire 320 acres to be assigned to the well productive of gas?

A Yes, I believe it is.

Q And, in your opinion, do you think this well can recover the reserves?

A Yes, I think it can.

Q Its proportionate share of the reserve in the fields?

A Yes, sir.

Q Will the correlative rights of the various parties out there be disburbed by the allowance of three hundred twenty acres in this

instance?

A I think the correlative rights of all parties involved will be adequately protected if the Commission approves the unit.

Q It will not upset any of the existing patterns of drilling in that particular area?

A No, I think reference to Exhibit One will show that there is not now any uniformity of pattern or size of proration units in that area.

Q Have any of the offset operators been contacted with reference to whether or not they object or don't object to the granting of your application?

A Yes. When we originally contemplated asking for this unit we visited all the offset operators and furnished them a copy of our application and sought a waiver of objection to the formation of this unit and we received replies from a number of them. I would like to introduce copies of their waivers as exhibits at this time.

MR. SMITH: If you will hand them to the stenographer so she can mark them.

A I believe they have a set and they have been marked.

Q Without burdening the Commission I wonder if you would give us a listing of those who are agreeable, the names of the company?

A We received waivers of objection from El Paso Natural Gas, R. Olsen Oil Company, Magnolia Petroleum Company, Amerada, Gulf Oil Corporation and Western Natural Gas Company, I believe. I don't have a copy of that one but I believe that is the other one involved.

Q Do you have any further comments to make in this case, Mr. Hiltz?

A No, sir, I do not.

MR. SMITH: No more questions.

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

CROSS EXAMINATION

By: MR. REIDER:

Q Mr. Hiltz, I notice that your current delivery is 1616 MCF, that was made, actually that was a 1,590,000 against a line pressure of 425?

A I believe that the information showed that was against a line pressure of 851 pounds. If it is in error, I will stand corrected.

Q What you are referring to is the calculated deliverability?

A I believe that was a one point back pressure test curve taken at that time.

Q Well, for instance, in December of this last year 320 acre unit in the Jalmat Field, 2,247,000 MCF and currently in February it would be a 1,808,000. It would seem on the surface of it that your well would have difficulty in meeting its allowable.

A Well, let's go beneath the surface. The test was taken against a line pressure of about 850 pounds. It is my understanding that the line pressures in there are normally not any higher than 500 pounds and in periods of peak demand, that the line pressures are lower than that. I believe the well on the basis of that test is capable of producing the allowable to which it would be entitled if this unit is approved. I would like to point out too that the well has never been stimulated at any time since its original completion. In the light of the results we obtained on our Meyer's B 2 to which I have referred previously and on which we increased the ability of the well to produce from essentially the dry hole to one with an open flow of over a million a day, there is no doubt in my mind that, if

and when the well becomes capable of producing its allowable, the application of the advanced techniques we have will allow us to improve the deliverability and I would like to point out that the allowables to which you have referred are allowables for a period in the year when the demand is greatest. I believe under the rules that the production can be balanced over the minimum of six months. If there were any difficulties as far as that is concerned, the correlative rights could be protected as an additional meausre through the balancing privileges provided by the Rules.

Q I would like to make a correction. It says deliverability test as submitted by your office and the deliverability to which you refer is the calculated 80 percent of shut-in; the well actually tested a 1,900,000 against a line pressure of 425.6 which might suggest a possible over dedication of acreage.

A Well, if that is true, I certainly think that the well can be stimulated and there will be no question of its ability to produce its allowable.

Q Do you have available the basic data from which you got your potential test?

A Well, no, the potential test is a physical test which is conducted on the well and, of course, you could expect the productivity of the well to decline from its initial productivity and the test to which he refers is possibly the latest test on the well which I regret was not available to me and I don't believe that those tests have been released yet by the Commission although it should have been in my file. I think the important point, if the well is incapable of producing the allowable, that there are techniques we could apply which would see that the productivity could be raised in such a

manner that it can make the allowable.

MR. REIDER: Do you think we should grant the application prior to such treatment?

A Well, I think that it would be up to Stanolind as a prudent operator to take whatever action is necessary to permit it to function under the rules which you issue. If you approve the unit and we see we are not able to make the allowable, that, as a prudent operator, we should take whatever action is necessary to permit us to obtain that allowable.

REDIRECT EXAMINATION

By: MR. SMITH:

Q Don't you think that the incentive would be there to get the additional productivity if the Commission did grant it, whereas, if it were denied, wouldn't there be more of an incentive to just let the well stay as it were and produce whatever allowable would be assigned to it?

A Conceiveably the incentive would be greater if the larger unit were provided if there was no immediate need to increase the well's productivity, conceivably, the operator may wait longer to work over his well.

RECROSS EXAMINATION

By: MR. REIDER:

Q My point is this, these allowable allocations are made as you know allocated and divided among the various wells on the basis of acreage. If your well were assigned an allocation which it could not easily make, you would be depriving the other operators in the field of their opportunity to produce gas which they could produce.

A I believe in your administrative procedure for distributing

allowables in the field that could be compensated for, I don't think there would be any difficulty there.

Q Has this well been making any Yates Oil?

A Not to my knowledge. So far as I know there is no Yates oil produced in that vicinity at all.

Q I believe information available to us is that we had to issue a tender last month to handle some Yates oil from that well.

A That is news to me.

MR. SMITH: May I inquire if you have the information available?

MR. REIDER: We don't have it here. It is available at the Hobbs office.

A If that is what your records reflect, I certainly wouldn't dispute it.

Q I merely point this out with the possibility that all of the acreage might not be as productive of gas as it might seem.

A If there is any evidence to the contrary, I would certainly be willing to review it and express an opinion on it. I have seen nothing whatsoever in my investigation that would lead me to believe that the acreage could not be reasonably construed to be productive. There has been nothing that I have seen that would indicate to me there was any possibility that there would be oil productive instead of gas productive.

Q We interject that as a possibility. I notice that you have no waiver from the Texas. They are the offset to the east.

A That is correct.

Q A waiver was requested?

A I think I stated that we sent a request for a waiver along with a copy of our application to every offset operator.

MR. MACEY: Anyone else have a question of the witness?

BY; MR. MONTGOMERY:

Q I notice an interval of one hundred feet on your contour map and you have a low synclinal area with faults. In view of the fact that this well has started making oil, at least according to our latest information, I wonder if there is a possibility that we might have another occurrence like we have in other areas?

A I should certainly hope not.

Q This well didn't make a great amount of oil I want to say that but it is starting to make oil and this situation is happening rather frequently and will probably continue to happen but I just wanted to ask what your recommendations would be, how we could prorate that oil?

A Well, I have given no thought to that in relation to this problem. I am simply not prepared to make a recommendation on that at this time. If and when it probably does arise, we will have an opinion to express.

MR. SMITH: Do you have the quantity of oil?

MR. MONTGOMERY: Two hundred and fifty barrels.

MR. SMITH: For what period of time?

MR. MONTGOMERY: It was tendered in December of last year. I don't know what period of time it was, a considerable period of time. I also know they requested to move more oil because of lack of storage.

MR. SMITH: You have no idea as to what volume of oil is being produced with the gas?

MR. MONTGOMERY: No, sir, I don't but the allowable we can check here on the gas allowable.

MR. SMITH: Do you know what the gravity of the oil is?

MR. MONTGOMERY: No, sir, I do not. I assume it is probably typical Yates, around 37, 33, 26.

MR. SMITH: Were the tenders made by other operators in that vicinity of oil?

MR. MONTGOMERY: Not in that immediate vicinity, no, sir.

MR. SMITH: When you say "the immediate vicinity", you mean a mile or two miles?

MR. MONTGOMERY: No, all Yates, mile and half.

MR. SMITH: Mile and half is the nearest you know of at this time?

MR. MONTGOMERY: Yes, sir.

MR. SMITH: Do you know the volume of oil that is being produced there roughly, equivalent to this or heavier?

MR. MONTGOMERY: The closest well I have in mind, it carries a daily allowable of five barrels a day.

MR. SMITH: How much gas?

MR. MONTGOMERY: Limited ratio is ten thousand to one. I assume they are taking all of it.

MR. SMITH: You have no reason to believe that this well here isn't properly classified as a gas well, do you?

MR. MONTGOMERY: Sir?

MR. SMITH: You have no reason to believe that this well isn't properly classified as a gas well?

MR. MONTGOMERY: I don't know what the ratio is. If I knew that I could tell you. The only thing we were saying here is that is there a possibility that there is synclinal accumulation of the Yates oil in this area and all the acreage is not productive of gas. I notice on one of the drill stem tests taken on the well from 2965

to 3126 it was open an hour and five minutes, gas to surface in three minutes, flow 280 MCF per day and recovered 420 feet of heavy gas cut mud and slightly oil cut mud.

MR. SMITH: What interval?

MR. MONTGOMERY: 2965 to --

MR. SMITH: (Interrupting) I thought we --

MR. WALKER: Do you care to put Mr. Montgomery on the stand?

MR. SMITH: We are glad to accommodate the Commission and give them any information we can. This comes as a surprise to us. We knew nothing of the tender of the oil. I think from your information there it would be a reasonable conclusion that is all it is doing. In other words 252 barrels was accumulated over quite a period of time. The well has a potential of about a million and a half a day. So it may be just some fluid coming out with the gas.

MR. MONTGOMERY: I would like to, since you brought up the question of ratio possibility, could we put that in the record now.

MR. SMITH: I think it is a matter for inquiry at some future hearing.

MR. MONTGOMERY: All right, I would like to ask one other question of Mr. Hiltz. It is not of any particular importance but may clear the record.

BY: MR. MONTGOMERY:

Q Do you have the top of the pay in the oil zone?

A I believe I do. The top of the Queen's oil pay, is that what you had reference to?

MR. MONTGOMERY: Yes, sir.

A It is shown on the data furnished me as being 3490 feet.

MR. MONTGOMERY: I didn't have that recorded. I just wanted

to inject in the record here that according to correlations adopted by New Mexico Oil Conservation Commission Committee Stratagraphic Nomenclature Committee, the top of it is 3567, therefore the top portion of the pay is actually in the lower portion of the Seven Rivers although it still remains in the Langlie-Mattix Oil Pool.

A Maybe I can give you, I can give you, I believe, a correction on that. I think you are correct that the top of the pay as reported here, the term Queens is simply an all encompassing term and it does include that portion of the Seven Rivers which is included in the Langlie-Mattix Oil Pool, referring to Exhibit Three on the cross-section indicates the actual top of the Queen itself being on the order of 3510 feet and applying the rough yardstick of the top hundred or bottom hundred feet of the Seven Rivers as being in the Langlie-Mattix Oil Pool the top of the pay there would be on the order of 3420 feet. At least that would be the dividing line whether or not that particular point was productive in the Langlie-Mattix Pool, of course, would be a different story, 3490 is probably representative of the point they obtained oil saturation.

MR. MACEY: Do you have anything further. Anyone else have a question of the witness? Mr. Hiltz, there is the possibility of Synclinal Yates Oil in the area. I think the fact that your well is making some oil I think what Mr. Montgomery was more or less concerned with was the fact that there is a possibility of us having a Yates Oil Field similar to what we used to call the Falby Yates Pool in the area. He is concerned with the, I believe, with the idea of granting an allowable to the well in such a volume that it might start moving oil in the Yates zone toward the well bore which I think you will agree is wasteful if it is moved over a very long distance.

There is no other Yates well in the area, I believe, Yates Oil well.

A I don't understand your reference to the fact that it would be wasteful to produce the oil?

MR. MACEY: Don't you think, if you move oil over a long, long distance, reservoir distance, you use up some energy in moving that oil and cause wasteful practice?

A No, I think the amount of energy required to move the oil is insignificant. As far as energy is concerned, if that is the basis on which you want to put it, it would not seem to me there would be any question of waste of energy to any significant degree no matter how far you had to move the oil.

MR. MACEY: Let's assume that the east half of your proration unit is oil productive in the Yates zone, do you believe that it is a good practice from the conservation standpoint to produce that oil from the east half of your proration unit into that one well bore?

A I fail to see that there would be anything wasteful about it.

MR. MACEY: Wouldn't it be better to drill an oil well to it and complete it after fracing and everything else, wouldn't that be a better practice from a conservation standpoint?

A Well, I don't know. Perhaps your idea and my idea would be different. It might be that, under some circumstances, you might get some relatively insignificant, well, I say insignificantly greater ultimate recovery but I don't think that conservationwise there would be any waste at all that would result from allowing that oil to be produced from the Yates well if it proved later there was Yates oil in sufficient quantities to warrant going in and drilling oil wells then, of course, we and the Commission would have to take another look at it.

Until the fact is developed which would warrant our classifying that area as a Yates Oil Pool and living with all the headaches that would go along with it, it would seem to me the logical thing to do would be to operate it in the manner in which the Commission has the Pool set up. As a matter of fact, if we are talking about structure low there in relation to the eastern portion of that lease, the eastern portion of the lease would be more likely to contain gas because it is located higher structurally than the western portion of the lease, so it would seem to me that there would be no harm, no waste caused at all if we went right ahead and assigned the acreage to the well and allowed it to produce until physical fact were produced warranting us to do otherwise.

MR. MACEY: Anyone have other questions of the witness?

MR. MONTGOMERY: Assuming that the gas oil ratio was less than one hundred thousand to one, we would then have an oil well?

A Well, if that is what your rule says, I believe that is true.

MR. MONTGOMERY: If that is what it says, then we would have an oil, oil dual?

A I hope not.

MR. MACEY: Anyone else: If no further questions, the witness may be excused.

MR. MANKIN: To clarify the record since the Commission representatives indicate that the Texas Company was the holdout on the situation, I might clarify for the record that we believe that Stanolind has shown that the area is productive. We did not grant the waiver but we feel that they have shown the Commission the area is productive and we are in accord with their request.

MR. MACEY: Anyone else: If not, we will take the case under

advisement. Did you offer your Exhibits?

MR. SMITH: I did not. I would like to offer the Exhibits that have been testified about into evidence.

MR. MACEY: Is there objection to the introduction of the Exhibits One through Nine in evidence? If not, they will be received and we will take the case under advisement and take a short recess.

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 2nd day of March, 1955.

Ada Dearnley
Notary Public, Court Reporter

My Commission Expires:

June 19, 1955

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 822

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES

COURT REPORTERS

ROOMS 105, 106, 107 EL CORTEZ BUILDING

TELEPHONE 7-9546

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
Santa Fe, New Mexico

March 16, 1955

IN THE MATTER OF:	)	
	)	
Application of Stanolind Oil & Gas Company for approval of a 320-acre non-standard gas proration unit in the Jalmat Gas Pool: NW/4 Section 5 and NE/4 Section 6, Township 24 South, Range 37 East.	)	Case No. 822 (Continued.)

Before: Honorable John F. Simms, E. S. (Johnny) Walker, and William B. Macey.

TRANSCRIPT OF HEARING

MR. MACEY: The next case is Case 822.

MR. TOWNSEND: Jim Townsend representing Stanolind Oil and Gas Company.

Case 822 is Stanolind's application for approval of 320-acre non-standard gas proration unit in the Jalmat Gas Pool covering the northwest quarter of Section 5 and the northeast quarter of Section 6, Township 24 south, Range 37 east. Testimony on the case was concluded at the last hearing except for a question which was raised concerning an indication of oil production from the Yates Gas Pool or gas zone. At Stanolinds request this case was continued until this hearing. Since that time we have made an investigation and an effort to clear up the question which was raised. We would like to present a few minutes' testimony in an effort to clarify the record.

R. G. H I L T Z

having first been duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. TOWNSEND:

Q Please state your name. A R. G. Hiltz.

Q Are you the same R. G. Hiltz that testified in Case 822 at the hearing in February? A Yes, I am.

Q Do you recall the question which was raised by some of the Commission personnel relative to the issuing of a tender for oil from this Yates gas well, or from the Yates gas well located on this proposed unit which tender was made in December of 1954?

A Yes, I recall it very vividly.

Q Since the last hearing have you caused an investigation to be made to ascertain the source of this oil production?

A Yes, we have.

Q What did you determine, or what did that investigation reveal?

A Well, I think we can best give a resume of that by reviewing briefly the entire producing life of this well and the associated oil production. This well was completed in May of 1952 but the first deliveries of gas were made into a sales line in December of 1953. The first gas sales were actually made on December the 21st of 1953. The first indication that we had of any oil production from the well was word that was passed up to us by the purchasers switcher who indicated that a considerable amount of oil was being found in the drip each day and it was necessary to blow down the drip. He made a casual observation for the next few days and it was indicated that oil in the amount of one to three barrels a day was accumulating in the drip. With the knowledge of this amount of oil being recovered, Stanolind on January 2, 1954 installed a high pressure separator on this lease and placed a test tank there

in conjunction with it to accumulate the oil production.

Subsequent to that time, from about the first of January 1954 until December the 1st, 1954, a total of 243½ barrels of oil were accumulated in this tank. All of the oil coming in conjunction with the production of gas from that well. During this period of approximately eleven months there was a total, I believe I gave the total oil production of 243½ barrels.

Q What was the rate of oil production or accumulation then on a monthly basis from this well?

A Well, averaged over the entire eleven month period there was approximately two barrels per month, or less than a barrel a day.

Q Then taking all of this gas and oil production over this period, what was the gas-oil ratio?

A The average gas-oil ratio for that period was 937,000 cubic feet per barrel.

Q Are you familiar with the requirement for a well to be classified as a gas well in Order No. R-520?

A Yes. According to Order No. R-520 a well is classified as a gas well if the producing gas-oil ratio is in excess of 100,000 to 1.

Q Does the well meet the requirement as set forth in that order, in order to be classified as a gas well?

A Yes, I think the data that I have quoted indicates that it is.

Q Since the hearing in February, have you acquired any additional information through tests or otherwise, which would determine the current gas-oil ratio in this well?

A Yes, in order to get a more current picture of the actual producing gas-oil ratio from day to day, gas-oil ratio tests were conducted on five successive days beginning with March 2nd, 1955 and concluding with a test on March 6, 1955. This test comprised a series of five consecutive twenty-four hour periods.

(Marked Stanolind's Exhibit No. 10 for identification.)

Q Let me hand you what has been marked as Stanolind's Exhibit No. 10. Will you please state what this exhibit purports to show?

A This exhibit is a report of the results obtained from the five-day gas-oil ratio test as well as including information for the total amount of oil and gas produced during the month of January, 1955.

Q Briefly will you summarize the results of that test or the information that is contained in those five tests, that were taken?

A Yes, first I would like to point out that when the total oil production and the total gas production for January, which was the latest month for which complete data was available, there was a total of 38 barrels of oil and 39,000 m.c.f. of gas produced during that month, giving an average gas-oil ratio during that month of 1,035,000 cubic feet per barrel that conforms very closely to the average gas-oil ratio for the previous eleven months-period which was previously indicated to be 937,000 cubic feet per barrel.

We then conducted the five-day gas-oil ratio test and it was indicated that the gas-oil ratio during the first twenty-four hours was 585,000 to 1. On subsequent days as the well reached a more nearly stabilized rate of production, the gas-oil ratio increased and stabilized at a rate in excess of one million per day.

As a matter of fact, on March the 5th, 6th, the gas-oil ratio was 1,495,000 cubic and 1,560,000 cubic feet per barrel.

As to the reason for the increasing gas-oil ratio, I think it is pertinent to point out that the well had been shut in for several days prior to the commencement of this test. So it is certainly not unusual to expect a little bit larger amounts of fluid to accumulate in the well bore or in the immediate vicinity thereof, so that in the immediate follow period of production, that gas-oil ratio might be expected to be somewhat less.

MR. TOWNSEND: We would like to offer Stanolind's Exhibit 10.

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

Q What conclusion do you reach as a result of these tests and the studies concerning the history of the well?

A In my opinion it appears that the production of oil is coming from the Yates, that the amounts are relatively small, that the gas-oil ratio is well in excess of the minimum requirements for its classification as a gas well, and in my opinion the well should be so classified.

Q You testified at the last hearing, did you not, that the proposed unorthodox unit was reasonably proven to be productive of gas? A Yes, I did.

Q Did you also testify concerning the possible existence of impermeable barriers to preclude communication throughout the area?

A I believe we presented testimony to show that there were no barriers to communication.

Q With reference to the well, is the well capable of producing the allowable to which it would be assigned if this unit is approved?

A Yes.

Q Do you have any further comments that you would like to make to the Commission concerning this well or the unit?

A Yes, I would like to point out in relation to the wells' ability to produce, that during this five-day gas-oil ratio period the well produced at a rate varying from 3,610 m.c.f. per day to 3,925 m.c.f. per day at line pressures averaging about 470 pounds. So it is indicated that previous test data submitted to the Commission may well be in error. We are investigating that further, and as appropriate, we will submit a new test on form C122.

Q In conclusion, what is your recommendation to the Commission regarding the establishment of an unorthodox gas proration unit covering the northwest quarter on Section 5 and the northeast quarter of Section 6?

A It would be my recommendation that it be approved as applied for by Stanolind.

MR. TOWNSEND: That is all we have.

MR. MACEY: Any questions of the witness?

By MR. REIDER:

Q Mr. Hiltz, was the production on this five-day test period taken from the tubing or the casing?

A That is a casing completion and taken from the casing, to my knowledge.

Q That is a dual completion?

A Yes, it is. I believe we gave some data on that at the last hearing.

Q I didn't recall that. A Yes.

Q Would you consider your January production figures

a rather accurate production figure? Does it represent a pretty good month?

A The amount of oil indicated to be produced in January, of course, is accumulated in a tank and there are cases where they have had to go in and bleed off some water from the bottom of the tank, but except for that, I would say that the January data are probably fairly representative. That is confirmed by the gas-oil ratio average for that eleven months period which conformed fairly closely to the January average. Subsequent data would indicate that the producing gas-oil ratio was probably actually in excess of that.

Q I notice that is slightly in excess of the average monthly production for the previous eleven months. I wonder if there is a possibility that the oil production is increasing?

A To the contrary, I would say that the fact that the gas-oil ratio was indicated to be increasing, it would indicate that the oil is in very small quantities and is decreasing. I say that because during January the producing rate was the highest of any month during the entire producing life of the field except for December of '54 and January of '54. So it could be expected with the unusually high gas producing rate, that the total oil production for any given gas-oil ratio would be greater.

Q Did you get a check on the gravity of that?

A We didn't actually measure the gravity because the crude was moved from a test tank to other tanks on the same lease. As near as we can tell, the gravity is about 32 to 34 degrees.

MR. MACEY: Anyone else have any questions of the witness?

By MR. MONTGOMERY:

Q Mr. Hiltz, it is possible that it does get lower as you go eastward the Yates will go lower and come back up?

A I believe the contour map we submitted as Exhibit 2 shows that on the western portion of the 320 acres, the Yates was encountered at a higher subsurface elevation, which indicates that the western half of the proposed unit is lower structuraly than the eastern half.

Q Is there some point on this acreage that you are asking for that will be lower than the well?

A I don't know. Of course we have in that area, at least on the 320 acre unit, only one control point for subsurface elevation.

Q The way I interpret the contour, it is possible there will be a lower area than what your well is here and not denying it is a gas well, the ratio is so high there is a thought that maybe you are on the very edge of the sincline if you are possibly ten or twenty feet lower, that you would have an excellent Yates oil well. But that is something that is conjecture. If it is proven that some of the acreage is productive of Yates oil in commercial quantity, would it be satisfactory with Stanolind to reduce the size of the unit?

A I believe if that circumstance arises, we would be willing to take a look at it at that time.

MR. MACEY: Anyone else? If not the witness may be excused. Anyone have anything further in this case? If not we will take the case under advisement. (Witness excused.)

C E R T I F I C A T E

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings in the matter of Case No. 822 was taken by me on March 16, 1955; that the same is a true and correct record to the best of my knowledge, skill and ability.

Ada Dearnley
Reporter