

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JUL 23, 1956

IN THE MATTER OF:

CASE 1093

TRANSCRIPT OF PROCEEDINGS

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION

June 27, 1956

IN THE MATTER OF:

CASE 1093: Application of Amerada Petroleum Corporation for an order granting a 480 acre non-standard gas proration unit in exception to Rule 5 (a) of the Special Rules and Regulations for the Jalmat Gas Pool as set out in Order No. R-520.

Applicant, in the above-styled cause, seeks an order granting establishment of a 480 acre non-standard gas proration unit in the Jalmat Gas Pool comprising the NW/4 and the E/2 of Section 3, Township 26 South, Range 37 East, said unit to be dedicated to applicant's proposed Cagle "C" Well No. 1 located 990 feet from the North and West lines of Section 3, Township 26 South, Range 37 East, Lea County, New Mexico.

BEFORE:

Mr. Warren W. Mankin, Examiner.

PROCEEDINGS

MR. GURLEY: Case 1093, the Application of Amerada Petroleum Corporation for an order granting 480 acre non-standard gas proration unit in exception to Rule 5 (a) of the Special Rules and Regulations of the Jalmat Gas Pool, as set forth in Order R-520.

MR. MANKIN: Will witness please be sworn in.

R. S. CHRISTIE

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

DIRECT EXAMINATION

MR. MANKIN: Proceed Mr. Christie.

MR. CHRISTIE: My name is R. S. Christie, Petroleum Engineer for Amerada Petroleum Corporation in Tulsa, Oklahoma. In connection with Case 1093 -

MR. GURLEY: One moment Mr. Christie - are you the same Mr. Christie that testified in Case 1092 and qualified yourself therein?

MR. CHRISTIE: Yes sir, I am.

MR. GURLEY: Proceed.

MR. CHRISTIE: Case 1093 is an application for an exception to Rule 5 (a), Order R-520, for Amerada Petroleum Corporation Cagle "C" No. 1 Well in the Jalmat Gas Pool, Lea County, New Mexico, as Exhibit No. 1, I hand you a plat showing the location of the subject well together with Developments surrounding the proposed unit. Cagle "C" No. 1 is located in the NW/4 NW/4 Section 3, Township 26 South, Range 37 East, Lea County, New Mexico. The well is a dually completed well and has been approved by the Commission in Order DC-306, which was dated the 8th day of June, 1956. We propose in asking that the Commission assign 480 acres to this well, it is a non-standard gas proration unit in the Jalmat Gas Pool. The 480 acres consists of the E/2 and NW/4 of Section 3, Township 26 South, Range 37 East, the proposed non-standard gas proration unit lies wholly within a single governmental section. The proposed non-standard gas proration unit, we believe to be reasonably presumed, productive of gas. As Exhibit No. 2 I furnish you with a radio activity log on the subject well. I furnish you with Exhibit No. 3 which is a contour map, countoured on top of what we call Zone 1, which is approximately 20 feet below the top of the Yates formation, its a very good marker and can be correlated over a long distance. You will notice that the control east of the proposed unit is lacking. Actually there has been very little development offsetting Section 3, Township 26 South, Range 37 East. There is, as the Commission will note, some development on east in the Langlie Mattix oil field. But there is no - at least we have not

been aware of any other gas well in the Jalmat field, east of the proposed non-standard unit. This Exhibit No. 3, shows a list of the location of all offset wells in the general area and the designated formation that most of them are producing from. We believe that where you have the porosity in the Jalmat interval you will get gas down to a datum of approximately of ^{distance} mileage of 100 feet which would take you well beyond the eastern limits of Section 3. The majority of the wells drilled east of this area in question are old wells with very poor records and very few logs have been run of them, most of the correlation has to be done by sample description, and sometimes that is rather difficult to get. However, the Yates sand or the sands in this area recover gas become changed or become anhydritic is rather hard to tell. We have drilled several wells on our Wimberly lease which is NE of the area shown on Exhibit No. 3, and we have not been able to find any change particularly in the sand characteristics in that particular area of our Wimberly lease so it would tie down more closely the distance from the particular area we are talking about.

MR. UTZ: I could get you a map in about two minutes, if you would like to have one.

MR. CHRISTIE: Well since its helpful to you, you might be well to have -

MR. GURLEY: Elvis, is that necessary for the testimony here?

MR. UTZ: He wants to tie down his testimony as to the Wimberly area -

MR. GURLEY: You need that from this standpoint or -

MR. UTZ: Yes, its a question.

MR. CHRISTIE: Referring to the statement made previously concerning our Wimberly Lease wherein we found very little change in the sand characteristics, our Wimberly Lease is located in Section 25, Township 25 South, Range 37 East -

MR. MANKIN: Which would be some two or three miles of the well in question?

MR. CHRISTIE: Yes sir, of course those wells are producing from the - they are gas wells actually in the Langlie Mattix pay, that sample description of the interval between the top of the Yates and Seven Rivers are ^{1/2}texted rather closely with the sample description of the well in question, so even though it is several miles NE, it raises some doubts as to whether the sand actually becomes anhydritic directly east of our Cagle "C" No. 1, and would take some further study and possibly some cross section correlation to approve that one way or another. The open flow potential of the upper zone was a little in excess of 6 million cubic feet, which is ample potential capacity to have an allowable assigned to 480 acres.

MR. MANKIN: You said the upper zone, do you mean combine Yates and Upper Seven Rivers?

MR. CHRISTIE: Yes sir, the combined perforated zone that we have perforated in the well. Of course the lower zone is a gas well in the Queen formation and will be subject to volumetric displacement.

MR. MANKIN: You say that the lower zone is an oil well in the Langlie= Mattix - I mean a gas well?

MR. CHRISTIE: Yes sir.

MR. MANKIN: Therefore the order which you have received as an oil well is not a valid order then? DC-306 then should be corrected to be as a gas well in the Langlie Mattix rather than an oil well in the Langlie Mattix.

MR. CHRISTIE: I believe that is right. I understand of course, that when we first brought it in that it did make some oil - but we are not - I think we turned it in as an application for a dual gas-gas. If I remember correctly.

MR. MANKIN: But of course your application was put in prior to - You actually dually completed the well, is that correct? In other words, your application dated May 25 and was granted June 8th, the well was dualled later,

I presume - and you found gas at that time rather than oil? In the Langlie Mattix zone or the - thats the lower Seven Rivers or the Langlie Mattix or is it the Queen?

MR. CHRISTIE: It is the Queen formation, I believe.

MR. MANKIN: I would recommend that you make a change and notify all the offset operators because your application indicated in your diagrammatic sketch, indicated that you intended to get oil from the lower Seven Rivers and not the queen, therefore you got gas from the Queen, therefore the order needs to be amended.

MR. CHRISTIE: May I see the application of the well, please?

MR. MANKIN: I might state that part of your application indicated you expected to obtain oil from the lower Seven Rivers and the Queen, however, the diagrammatic sketch indicated that it would be oil from the Seven Rivers - Lower Seven Rivers only so that the dual completion order did not include the queen or oil and that is where you find gas apparently.

MR. GURLEY: Then this application should be amended?

MR. MANKIN: It will have to be amended - to amend DC-306 and to notify the offset operators accordingly that the conditions have changed - because the order is not a valid order - the DC Order.

MR. CHRISTIE: I may have to correct that - I notice that the proposed dual completion shown in the diagrammatic sketch of the completion indicates that the lower perforations are above the base of the Seven Rivers, so I was apparently in error - I would like to present this Exhibit No. 4, I believe.

MR. UTZ: You now wish to change the statement - that it is in the Lower Seven Rivers?

MR. CHRISTIE: Yes, that is right.

MR. UTZ: Is it still oil or gas?

MR. CHRISTIE: No, it is gas.

MR. UTZ: Well then the order is still in error - insofar as gas?

MR. CHRISTIE: Yes, so far as the oil part of them is concerned.

MR. MANKIN: The order stated that it would be oil from the Queen, I mean from the Seven - Lower Seven Rivers?

MR. CHRISTIE: Yes, actually it is gas.

MR. MANKIN: The Queen is not open?

MR. CHRISTIE: The Queen is not open.

MR. MANKIN: So the only thing we will have to amend is to change from an oil well - it will be a gas-gas dual rather than a gas-oil dual -

MR. CHRISTIE: That is correct.

MR. MANKIN: Gas from the lower Seven Rivers which is Langlie Mattix rather than oil -

MR. CHRISTIE: Yes sir -

MR. GURLEY: Well now Mr. Christie, you are asking for a dedication of the 480 acres to that portion of the well which is producing from which?

MR. CHRISTIE: From the Yates and the upper seven Rivers.

MR. MANKIN: Of the Jalmat Gas Pool?

MR. CHRISTIE: Of the Jalmat gas pool.

MR. MANKIN: That condition has not changed - your application as regard this hearing - is that correct?

MR. CHRISTIE: That is correct.

MR. MANKIN: So the only thing - nothing concerned with this hearing is in error - the only thing is that it will be necessary that you re-submit your request of an amended DC Order, and notify all offset operators again.

MR. CHRISTIE: That is correct.

MR. MANKIN: So that we may issue an amended DC-306.

MR. CHRISTIE: Yes sir.

MR. MANKIN: To properly reflect its gas instead of oil from the Lower Seven Rivers of Langlie-Mattix.

MR. CHRISTIE: I believe that is all the testimony I have Mr. Examiner.

MR. UTZ: Mr. Christie, the west offset to your Amerada Cagle #1 is a well operated by the El Paso Natural Gas Company known as the Farnsworth C 2, which is also in the Jalmat Gas Pay, is that correct?

MR. CHRISTIE: That is my understanding - yes.

MR. UTZ: Do you know the status of that well at the present time?

MR. CHRISTIE: No sir.

MR. UTZ: Well I did not either until about an hour ago - it is a Langlie-Mattix or a Jalmat Gas well which has been shut in for some time, which still has 160 acres dedicated to the well. The distance from that well to your No. 1 Cagle is approximately 2640 feet - would that be correct?

MR. CHRISTIE: Yes sir, it appears to be.

MR. UTZ: And the North offset to your Cagle No. 1 is Southern California Petroleum Dabbs #1?

MR. CHRISTIE: Yes sir.

MR. UTZ: And the distance from your well to the Dabbs No. 1 is approximately 2000 feet?

MR. CHRISTIE: Yes sir.

MR. UTZ: Do you know whether or not the Dabbs No. 1 is a non-marginal well or a marginal well?

MR. CHRISTIE: No sir, I do not - the information that we have on Exhibit No. 3 indicates that it has an open flow of 7,800,000.

MR. UTZ: I believe the Commission records will show that it is a non-marginal well, with 160 acres dedicated to it? - that is a non-marginal well and in effect what you are asking here is for an allowable - well - it would be approximately - well it would be exactly three times the allowable of either of those 2 offset offsets

which you just mentioned. Is that correct?

MR. CHRISTIE: Yes sir.

MR. UTZ: And the only information which you have is to the capabilities of the E/2 of Section 3 of being productive of gas in the Yates and Upper Seven Rivers is your Wimberly Lease to the NW/4?

MR. CHRISTIE: And the interpretation of the contours on the top of Zone 1 in the area. We had approximately 130 feet of sand section in our Cagle C #1 which does not appear to us that it would pinch out by the time it gets to the east side of that section. It is also capable of producing 6,000,000 cubic feet. Of course all those factors we feel that the entire section is gas productive.

MR. UTZ: Well don't you feel that your radius of drainage with an increased allowable would extend up into the Southern California Petroleum Lease and also to the West into the Farnsworth Lease?

MR. CHRISTIE: Well, if the sand is permeable in the entire area, I do not see that it makes too much difference - we will probably be - we might be draining them and - of course they could be taking it from the area in Section 3, as far as that goes.

MR. UTZ: Well, their allowables will be about 1/3 of what your allowables will be.

MR. CHRISTIE: Yes, that is right. It would depend on the permeability whether you produce or create a low pressure area around our C 1 - if there is a differential there, we would probably produce gas from Section 4, Section 34 and possibly 33, but those in turn would be replenished by gas on the East side of Section 34 and also on Section 3, and any area that is not completely developed on 160 acres. I think testimony in previous cases in Order 520, as a matter of fact, indicates that one well will drain 640 acres in this zone.

MR. UTZ: There are no wells to the East of Section 3 through in the Jalmat pay, is that right?

MR. CHRISTIE: That is the information we have.

MR. UTZ: There are no wells to the South?

MR. CHRISTIE: No sir.

MR. UTZ: Therefore there would be no counter drainage insofar as the East half of Section 3 is concerned - is that right or wrong?

MR. CHRISTIE: There is I believe a well South in Section 10, Exhibit 3 reflects El Paso Natural Bates et al No. 1, I believe - has a potential of 9,000,000 - produces from an open hole.

MR. UTZ: That well is in the SW/4 of Section 3?

MR. CHRISTIE: Yes sir.

MR. UTZ: Well, in effect there is no gas wells in the Jalmat which would - are close enough to the E/2 of Section 3, to afford counter drainage.

MR. CHRISTIE: No.

MR. UTZ: I believe that is all I have.

MR. CHRISTIE: I might put into the record also that the El Paso Natural owns the gas rights in the SW/4 of Section 3 and they have asked us to communitize that 160 with the other 480 which we will start negotiating this week.

MR. MANKIN: On the basis of those negotiations, or possible negotiations, - Mr. Christie, why was not this well drilled as a standard location for the Jalmat gas pool who - which would require at least 1980 from the outer boundary on the basis that this might be a 640 unit.

MR. CHRISTIE: Actually this is an old well that was drilled and completed as a dry hole - they went back into it and -

MR. MANKIN: I do not believe we have any information presented and - here as to when this well was originally drilled and to what it ment to - could you give us some information on that?

MR. CHRISTIE: Cagle "C" No. 1, Amerada Cagle "C" No. 1 was originally drilled and completed, and abandoned as a dry hole on April 29, 1949 at a total depth of 3526 feet.

MR. MANKIN: So this particular well was drilled through ore into the Queen?

MR. CHRISTIE: Yes sir. It was drilled for the purpose of trying to make an oil well in the Langlie-Mattix Pool.

MR. MANKIN: And at that time was the completions that were at hand at the time it was not possible to make an oil well - of course it still is not possible to make an oil well from the Langlie Mattix -

MR. CHRISTIE: That is correct.

MR. MANKIN: But with the new completions, you are able to make a gas well in the Yates and the Upper Seven Rivers -

MR. CHRISTIE: Yes sir.

MR. MANKIN: The old log - we don't seem to have in our records - would it be possible that a copy could be made of the drillers log that was originally made of this well and furnished to the Commission so that our records will be complete?

MR. CHRISTIE: Yes sir, if the Commission has not been furnished with a log of the well.

MR. MANKIN: I assume that the original log of the well on the abandonment in 1949, is what I was speaking - which we don't have a copy of, of course - will a new log be put on the well now with the recompletion, -

MR. CHRISTIE: I assume a new log will be put in, of course I have submitted an electric log.

MR. MANKIN: You have submitted a radio active log. For the record would you furnish the Commission with a copy of the old log on the Form 9-31 A I presume -

MR. CHRISTIE: Yes sir.

MR. MANKIN: A federal form - so that our records might be complete - did you have anything else Mr. Christie?

MR. CHRISTIE: No sir, I would like to introduce the Exhibits for the record and ask that you approve our application for a 480 acre non-standard unit.

MR. MANKIN: I believe your Exhibit #1 through 4 - is that correct?

MR. CHRISTIE: Yes sir, I believe that is right.

MR. MANKIN: Is there objection to entering Exhibits 1 through 4 in this case? If not, they will be so entered. Did you have anything else?

MR. CHRISTIE: No.

MR. MANKIN: If nothing further, the witness may be excused. I have a letter which the Commission has received dated June 22, 1956, from Southern California Petroleum Corporation, Midland, Texas. Addressed to the New Mexico Oil Conservation Commission, Santa Fe, the subject is: "Amerada Cagle "C" No. 1, Section 3, Township 26 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico. Application for Exception to Rule 5 (a), Order No. R-520, dated May 29, 1956. Case No. 1093, set for Examiner Hearing June 27, 1956, at Santa Fe, New Mexico. Gentlemen: Southern California Petroleum Corporation objects to the assignment of a 480-acre non-standard proration unit to the subject well for the following reasons: Amerada's application Paragraph (b): Request 480-acre proration unit of the E/2 and NW/4 of Section 3, T. 26S, R. 37E: This request is an exception to R-520 Rule 2 which states: "Each well drilled or recompleted within the Jalmat Gas Pool after the effective date of the rule shall be drilled not closer than 1980 ft. to any boundary line of the tract.... Rule 5 (a) would allow a maximum of 320 acres for this 990-990 ft. location if the well was producing prior to the effective date of R-520. We, therefore, recommend a 160-acre proration unit be allowed this well.

Amerada's application Paragraph (d) states: "That the proposed non-standard gas proration unit may reasonably be productive of gas." We do not feel this is a correct statement due to structural and stratigraphic conditions in this area. We believe it is common knowledge that a structural low extends along the Langlie-Mattix trend in the area, and would cause the E/2 of said Section 3 to be low enough that it is definitely questionable whether the Yates zone would be productive of gas.

Further, a facies change exists in the Langlie-Mattix trend whereby the Yates sands are rapidly changing to anhydrite. We believe this change is occurring eastward across said Section 3, so that it is doubtful that the E/2 of Section 3 would have good gas-producing characteristics in the Yates zone.

Also, there is at present no Yates production east of the Amerada No. 1-C Cagle because of this facies change.

We, therefore, recommend a 160-acre proration unit; namely, the NW/4 of Section 3, T26S, R.37E, be allowed this well.

Southern California Petroleum Corporation is the operator of a Yates gas well, No. 1 Dabbs, 990' FSL & 330' FWL of Section 34, T25S, R37E, approximately 2000' north and a little west of the Amerada No. 1-C Cagle, which is assigned a 160-acre proration unit. Yours very truly, Southern California Petroleum Corporation, J. A. Warren, Division Engineer."

And they show copies being furnished to: El Paso Natural Gas Company, P. O. Box 1384, Jal, New Mexico; R. Olsen Oil Company, Drawer Z, Jal, New Mexico; Stanolind Oil and Gas Company, P. O. Box 899, Roswell, New Mexico; The Texas Company, P. O. Box 1270, Midland, Texas; Amerada Petroleum Corporation, Attention: Mr. D. C. Capps, Drawer D, Monument, New Mexico.

Are there any other statements to be heard?

MR. UTZ: Yes, I have a statement, a request rather from Mr. John Woodard, of El Paso Natural Gas Company, who would like to enter an appearance as an interested party, a nominal protestant in order to preserve his rights to protest later on he asked me by telephone to make this statement into the record.

MR. MANKIN: Would you wish to add something at this time Mr. Christie?

MR. CHRISTIE: Is that to mean that he will make his protest in an open hearing, or by letter?

MR. UTZ: I am not enough of a Lawyer to know -

MR. GURLEY: To make an appearance in a case he would have to appear in person or have a representative, or by letter and the letter should only go as to becoming a part of the record in that it is not subject to cross examination. The letter would be accepted for what its worth, I do not think that this telephone call is such that it would be an appearance in this case.

MR. UTZ: He would have the opportunity to ask for a rehearing in this case -

MR. GURLEY: If he is an affected party he could certainly ask for a rehearing.

MR. CHRISTIE: I might state that if there is any doubt in the Commissions mind that this entire section is not productive, we would not have any objection to continuing the case, so that we can do some more work on it and try to make a cross-section through there to see if that sand carries on East, however, we feel, as I have stated before, that the entire section from the information we have is productive and on that basis I ask that the Commission grant the 480 non-standard unit.

MR. MANKIN: Is there anything further? Any other statements? Any other appearances? If not we will take the case under advisement and the hearing is adjourned.

STATE OF NEW MEXICO

COUNTY OF SANTA FE

I, Gloria Alvarado, do hereby certify that the foregoing and attached transcript of proceedings before the Oil Conservation Commission Examiner at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

Dated this 13th day of July, 1956.

Gloria Alvarado