

(Mr. Graham reads notice of publication.)

MR. KELLOUGH: My name is Booth Kellough. I represent Amerada Petroleum Corporation. I would like to make a little statement to the Commission in connection with this case 341. That case comes on for hearing upon the motion of the Commission to designate as an oil pool the Hightower-Devonian pool. Since the bringing in of the Amerada BTB No. 2 well as an oil well. I beg your pardon, I meant Hightower-Pennsylvanian. It was continued from the last hearing so that we could make a further study as to whether or not it was the same reservoir in which the gas wells of the Amerada and the Gulf were producing. It appears now, in the opinion of our engineers and geologists, it is the same reservoir. And Amerada is now producing, and also Gulf is now producing, each, a gas well as an exception to Rule 404 so as to use the gas for gas-lift to gas-lift oil wells in the Pennsylvanian and also Bagley pools. If this is designated as an oil pool, being the same one in which -- the same reservoir in which -- these gas wells are located, then Rule 506 would be applicable to limit the amount of gas, to the extent that we would be unable to maintain and continue our gas-lift program. So what we would like to request of the Commission is that in the order designating this Hightower-Pennsylvanian oil pool that it be made subject to the existing exceptions under Rule 404, which authorizes the gas to be used for gas-lift purposes, and further, it be made

subject to an exception to Rule 506, which is the limiting gas rule, temporarily or until such time as we can work out some other arrangement, if it possible, to operate those gas wells.

Now, Mr. Christie is here, and if the Commission desires any testimony, why we will be glad to present it. But our request is that the order which designates the oil pool make such exception so that we can continue to operate those gas wells for gas-lift purposes. If not -- I might say this. It will result in no waste of gas. As a matter of fact, the gas now being utilized is being utilized to produce the oil wells, and it would result in we would probably have to shut down one or more of the oil wells until we could work out some other arrangement. So, during the interim, we would like this exception to be made.

MR. GRAHAM: If the Commission please, I would like to make a slight correction in the township and range as read in the notice in that case. That should be sections 22, 23, 26 and 27, T. 128-R.33E.

MR. SPURRIER: You don't ask for a definite date on your continuance. Perhaps you should put on a little testimony to show what you intend to do.

MR. KELLOUGH: All right.

R. S. CHRISTIE, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLOUGH:

Q Will you please state your name?

A R. S. Christie.

Q And where do you live, Mr. Christie?

A Tulsa, Oklahoma.

Q By whom are you employed?

A Amerada Petroleum Corporation.

Q In what capacity?

A Petroleum engineer.

Q You have previously testified before this Commission in the capacity of an expert witness and petroleum engineer?

A Yes, sir.

MR. KELLOUGH: Are the qualifications acceptable?

MR. SPURRIER: They are.

Q Do you have a map which shows the gas wells involved in this matter?

A Yes, sir, I do.

Q I am laying this map before the Commission (marked Exhibit 1). Mr. Christie, will you just very briefly state what that map shows and identify the wells involved.

A The map shows the Bagley field, and also the Hightower field, which is on the south end of the map, north end of the map. The wells circles in red are two gas wells that are producing from the Pennsylvanian formation; namely, Amerada

Petroleum Corporation Roach No. 1.

Q That is located where?

A Located in the NWSW of Sec. 26, T. 12S-R. 33E. The second well circled in red is the Gulf Oil Corporation's State NMI No. 1, which is located in the SESE of Sec. 22, T. 12S-R.33E.

Q Does that map also show the Hightower-Pennsylvanian oil wells?

A Yes, sir, it does. The only oil well completed in the Pennsylvanian is the Amerada BTB No. 2, which is located in SENW of Sec. 26, T. 12S-R. 33E.

Q Is it your opinion these are producing from the same reservoir?

A Yes, sir, it is.

Q Mr. Christie, do you have a map which shows the presently-existing gas system which is now in operation under exception to Rule 404?

A Yes, sir.

MR. KELLOUGH: I now lay before the Commission Exhibit No. 2.

Q Would you please explain what that is?

A Exhibit No. 2 shows the existing gas system in the Bagley and Hightower fields. The system is shown in three different colors. The green color is the gas line from the two gas wells located in the Hightower-Pennsylvanian field. The yellow color shows the wells that are on gas-lift through this system. The colors in red are the wells that are producing gas from oil

wells into the system. There are at the present time five oil wells in the Bagley field that have sufficient separator pressure to get into our gas system, which is about 650 to 700 lbs. In addition to the gas being used for gas-lift from the gas wells, it is also being used for drilling fuel, and not only furnishes the gas to the drilling wells in the Bagley and Hightower fields, but also to wells drilling in the East Caprock field, which is approximately six to seven miles west of the Hightower field.

Q Mr. Christie, Rule 506 (b) 2 reads as follows: "Any unit containing a well or wells producing from a reservoir which contains both oil and gas shall be permitted to produce only that volume of gas equivalent to the applicable limiting gas-oil ratio multiplied by the top unit allowable currently assigned to the pool." That limiting gas- oil ratio under the regulation is 2,000 cu. ft. of gas for each barrel of oil produced. Under the application of the rule which I read to you, Mr. Christie, would Amerada be able to produce enough gas to satisfy and meet the requirements of this gas system which you have just described?

A No, they would not. During the month of February we used a total of 112,412 MCF for gas-lift. Approximately 50 per cent of that came from the oil wells that had sufficient separator pressure to put the gas into the gas system. The other 50 per cent was make-up gas from the two gas wells in the Hightower-Pennsylvanian field. To be specific, the Amerada Roach well

produced 49,013 MCF for the month of February. And the Gulf NMI No. 1 produced 22,258 MCF. Now, of course, not all of that gas -- it looks, it is identical with and goes into the system and part is probably used for gas-lift and part for drilling fuel. Based on the rules, those two wells would be reduced to approximately 318,000 cu. ft. per day, and that would be inadequate as far as make-up gas for the gas-lift system.

Q Will you explain to the Commission the exception which you are requesting?

A We would like to be able to produce these two gas wells until such time as we have been able to work out a program for artificially lifting the various wells in the two sands, namely, Bagley and Hightower fields. We are making a study of putting in a compressor to compress the casinghead gas and re-cycle it for use as gas-lift gas, as against putting in pumping equipment. And, of course, that entails quite a study because we have to determine our source of gas and the supply and the number of wells that will eventually go onto gas-lift and so forth.

Q What would be the result if the Commission did not permit this exception which you are requesting?

A Well, we have 10 wells on gas-lift. The total oil lifted by gas-lift for the month of February was 38,490 barrels, along with considerable volumes of water. Since about 50 per cent of the gas was furnished by the two gas wells, if they were penalized according to the rules, we would necessarily

have to temporarily, at least, shut down part of our oil wells until we could work out some kind of program to lift the oil some other way.

MR. KELLOUGH: That is all, Mr. Christie. The Gulf has a well involved in the same pool.

MR. CAMPBELL: If the Commission please, Jack M. Campbell, Roswell, appearing for Gulf Oil Corporation. Gulf has a well in the SESE of Sec. 22, T. 128-R. 33E, now producing gas under an order of the Commission authorizing an exception to the rules for the sale of this gas to Amerada for gas-lift purposes issued by the Commission prior to the discovery of this oil well in the Hightower-Pennsylvanian. The Gulf wishes to concur in the application of Amerada; that the order designating the new pool authorize the continued production of gas from the Gulf NMI No. 1 under the present order until such time as Amerada is able to make available gas for its use for gas-lift purposes in the Hightower-Pennsylvanian and the Bagley-Pennsylvanian wells. They are now gas-lifting with gas from these wells under order of the Commission.

MR. KELLOUGH: For the record, I would like to formally offer into evidence the exhibits identified by Mr. Christie.

MR. SPURRIER: Without objection, they will be received.

BY MR. WHITE:

Q How long would the wells be shut down if the exception were not granted?

A (By Mr. Christie) Of course, that would be hard to tell

because of the situation in regard to obtaining material. If we had to put in a compressor system, I doubt if we could get delivery of a compressor within 60-90 days perhaps. If we had to buy pumping equipment, I don't know how long it would take to get that. This equipment just isn't available in some cases.

Q As I understand your testimony, you want the Commission to allow you to continue to produce the gas wells until a program could be worked out whereby you could adopt an artificial lift; that is, I was trying to find out how long this exception would have to be granted.

A We haven't gotten into the program that far to determine when this equipment would be available if we had to buy it. Of course, it will be necessary to buy several compressors, and install gathering lines and to equip the wells with pumps.

Q That would take at least 90 days?

A I don't know. We haven't investigated how long it would take. Of course, from an economic standpoint, it would be much better to employ gas-lift. It is the cheaper equipment and would cost less to operate and would save in the use of steel. It would take less steel for a gas-lift system than for a pumping system.

Q What are prospects for regular marketing of this gas?

A Well, I understand that there is a gas company that is

making contracts for gas up through that area. Now, when they will have their lines laid and take gas, I don't know.

MR. SPURRIER: Mr. Christie, would six months time be satisfactory for a continuance to Amerada?

A I think we could have something very definite within six months.

MR. SPURRIER: Well, let's continue the case for six months to the September hearing so we will have it continued to a definite date. At that time we will expect Amerada to produce more evidence.

A I will assure the Commission we will do everything in our power to get some system worked out, because we don't want to use this gas any more than anybody else does against the present rules. We think the rules are there for a purpose, and we want to abide by them. But this is an emergency and we will work it out as fast as we can.

MR. PORTER: Mr. Spurrier, it came to my mind a correction should be made probably here. The attorney stated when the order is written creating a new pool, certain exceptions be made. I don't believe the necessity for a new pool will exist since admittedly this well is already in the Hightower-Pennsylvanian pool.

MR. KELLOUGH: That being the case, I would like to take this opportunity to request the Commission for an exception to Rule 506 (b) 2 in order to conform to the testimony presented.

MR. SPURRIER: The Commission will write an order to

grant that exception to the September hearing. Any further questions of the witness? If not, the witness may be excused.

MR. SPURRIER: Amerada's request wasn't in the call, Mr. Kelleugh. Therefore, we cannot give you relief, and it will be necessary for you to apply for relief.

MR. KELLOUGH: I understand, Mr. Spurrier, upon discussing the matter with Mr. White. I propose to file application with the Commission for exception to Rule 506, and ask it be advertised and set down at the next hearing; at which time, if there is no objection, we may re-offer in evidence the testimony given here today, and if it is, we will relitigate the matter.

MR. SPURRIER: Very well.

MR. WHITE: I think the record should show the Commission instead of granting a temporary order until September has taken the case under advisement. I believe Mr. Porter is going to check to find out whether that pool is an oil or gas pool. That would depend a lot on how you make application.

MR. KELLOUGH: It would affect whether the Commission would make an order dismissing the oil pool and creating a gas pool.

MR. PORTER: I believe it is an oil pool.

MR. KELLOUGH: In any event, in order to keep the record straight, we will file separate applications for exception to

