

(Witness sworn.)

HUGH JOHNSTON

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A Hugh Johnston.

Q What business are you engaged in, Mr. Johnston?

A In the drilling and contracting business.

Q Are you connected with the Roy H. Smith Drilling Company?

A Yes, sir.

Q What is your position with that company?

A I'm a partner.

Q Mr. Johnston, you've never testified before this Commission, have you?

A No, sir.

Q What educational background have you had?

A Well, I studied geology and petroleum engineering at Oklahoma University.

Q And what business have you engaged in since that time?

A Since that time, I was employed in Midland wells servicing firm for about--

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

Q When was that?

A From 1947 for approximately five years, and 1952 I left that job and went into the drilling business.

Q And have you engaged in the drilling business since that time?

A Yes, sir.

Q Now, Mr. Johnston, do you have any connection with the area which is involved in the application in Case 1910?

A Well, yes, sir. You mean--

Q Is it under your supervision?

A Yes, sir. I supervised the operation of that area.

Q Are you familiar with the area and the wells located there and their completions?

A Yes, sir.

MR. KELLAHIN: Are the witness' qualifications acceptable, Mr. Utz?

MR. UTZ: Yes, sir.

Q (By Mr. Kellahin) Mr. Johnston, are you familiar with the application in Case 1910?

A Yes, sir.

Q Would you state briefly what is proposed in this application?

A Briefly, we propose to commingle the oil from the three wells that are on this lease. Two of the wells produce from the Queen section, and one of the wells is completed in the



Yates section and has been assigned to the Maljamar-Yates Field, or Pool.

Q There are actually two separate leases involved here, are there not?

A Yes, sir. There is another lease also, and the application and the other lease being a Gulf State lease in Section 16 of Township 17 South, 32 East. And again we have three wells on this lease, two of which produce from the Maljamar or Grayburg San Andres, and one well is producing from the Yates and is assigned to the Baish Pool, and we also propose to commingle the oil from these three wells into a common tank battery.

Q Now, referring to what has been marked as Exhibit No. 1, a diagram of the Walker A lease, will you state what that Exhibit shows?

A Yes, sir. That shows that the south half of the northeast quarter of Section 5 is the lease in question, and it gives the location of the wells that are on the lease. The number 1 and 2 wells are wells that are in the Pearsall Field producing from the Queen, and the number 3 well is in the Maljamar-Yates Pool, this is from the Yates formation.

Q Now, the Exhibit likewise shows the ownership of the offsetting acreage, does it not?

A Yes, sir, that is correct. That-- It does not put the address of the owners, I did not know whether that was necessary or not, but to the best of my knowledge, these are the

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



correct owners of that offsetting acreage.

Q Now, referring to what has been marked Exhibit No. 2, will you state what that shows?

A That is a diagram. It is our proposal as to how we would commingle this oil.

Q I'm referring, Mr. Johnston, first, to the diagrammatic sketch as the Gulf State lease.

A On the Gulf State lease, we diagrammed here how we would propose to commingle oil, and I would like to--

Q The plat I'm referring to identifies the wells, please, sir?

A On this plat we have outlined the north half of the Southwest quarter of Section 17, 17 South, Range 32 East, as being the lease in question. And also have the locations of the wells that are on this lease. And in this case, the number 1 well is assigned to the Baish Pool, and produced from the Yates numbers 2 and 3 are in the Maljamar Field and produce from the Grayburg and San Andres.

Q And all of the offsetting acreage is owned and operated by Continental Oil Company?

A Yes, sir. That is correct.

Q Now, referring to the diagrammatic sketch on the Walker A lease which has been marked as Exhibit number 3, would you discuss how you propose to handle your tank battery on that lease?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



A Yes, sir. First, the size of that plat, it may be a little hard to read. I would like to substitute in the diagram there where I have put "Meter", I would like to substitute the word "Tank" for that, and the diagram, of course, shows the present flow lines and the tank battery, and our proposed flow line in the upper left-hand corner. We would show that we would produce our number 3 well into a separate tank in order to measure the oil, and then, transfer the oil from that tank into the tank battery that is presently there in order to get it on the pipe line connection.

Q Now, that would then indicate that you only propose to measure the production from one of the wells; is that correct?

A Yes, sir. That is correct.

Q Have you any production history on these wells, Mr. Johnston?

A Yes, sir. On the numbers 1 and 2 we've had for some time, and the recent history of those two wells is that they have an average production of approximately thirty barrels per day.

Q Now, they are producing from the Maljamar-Yates Pools?

A No, sir. They are producing from the Pearsall-Queen sand.

Q And what did you say their production was?

A Approximately thirty barrels per day.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



Q Now, what is the production on your number 3 well?

MR. UTZ: Is that thirty barrels from both wells?

A Yes, sir. The well that is producing from the Yates or Maljamar-Yates Pool well makes approximately thirty barrels per day.

Q (By Mr. Kellahin) Now, what is the gravity of the fluids from the two zones, Mr. Johnston?

A Gravity of the oil from the Pearsall Pool is 35.4 and gravity of the oil from the Maljamar-Yates is 38.

Q Would, by commingling, be any loss in the value of the fluids after they are commingled?

A I believe not, not to any extent, not to any great extent at least, because of the fact that the amount of oil that we are attempting to commingle is quite small, and especially the amount of oil that comes from the Yates sand well, is very small amount there.

Q In your opinion, would it be practical to meter the production from the two separate zones?

A I believe that it would not be practical to attempt to meter both of the zones. In the case of the Yates sand well, it makes a small amount of water which would complicate the metering process in any manner other than the manner that was stated of putting in the tank where the water could be drawn off and handled in that way to more accurately measure it. More so than by using the water samples or fluid samples to deter-



mine the percentage of water.

Q In your opinion, would periodic tests of the wells give a reasonably accurate indication of the production from the two zones?

A Yes, sir. I believe that we could take periodic tests and have a certainly a reasonably accurate record of what the production of the well would be.

Q In the alternative, you propose to install a tank in which oil from one of the zones would be measured?

A Yes, sir, that is right. As an alternative, we would install a tank which would be somewhat more positive.

Q Now, would you then determine the production from the other zones by deducting the measured production from the total production into the common tank battery?

A Yes, sir.

Q Would shrinkage be a factor to be considered in this instance?

A I would think not. I think that shrinkage would be very small.

Q Is the ownership throughout the acreage involved here common?

A Yes, sir.

Q Is the overriding royalty common?

A Yes, sir.

Q Now, referring to what has been marked as Exhibit

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



No. 4, which is a diagrammatic sketch of the Gulf State lease common tank battery. Would you discuss that Exhibit, please?

A Yes, sir. This, as in the case of the previous diagram, is to outline our alternate plan for commingling this oil in the event it isn't possible to, by periodic test, to determine the production from the two different zones, and this diagram being to show that we would again set a separate tank in order to measure the oil, if we are not allowed to measure the oil by periodic test.

MR. FLINT: You are changing the meter, to tank, here again?

A Yes, please.

Q (By Mr. Kellahin) Now, would you give us the production from the two zones in this lease?

A Yes, sir. Again the one well, the well in the Baish Field, the number 1 well, the average production in that well is approximately three barrels per day, and the average production from the two wells, numbers 2 and 3, in the Maljamar Pool, is approximately forty barrels per day.

Q There again you would determine the production in the Maljamar Field by deducting therefrom the measured production from the Yates-Baish Field after it had been measured into the tank?

A Yes, sir, that is correct.

Q In your opinion, would that give you an accurate measure-



ment of the oil production from the two separate zones?

A Yes, I believe it would.

Q What are the gravities of the fluids involved here?

A The gravity of the oil from the Baish Pool 35.4; the oil from the Maljamar is 36.7.

Q And the commingling would have no significant effect on the gravity of the ultimate product?

A I would think not. Unless there is one degree difference in the gravity, I don't believe it would change it much.

Q In your opinion, would shrinkage be a factor to be considered by this system of measurement?

A I don't believe that it would.

Q Do you think that accurate measurement could actually be achieved by periodic well tests, rather than any measure from the total commingled product?

A Yes, sir, I believe so.

Q Would you propose that as an alternative to measuring into a tank?

A That would be our proposal primarily, and then, as an alternative, we would measure it in the tank.

Q Would it be practical, in your opinion, to meter the production from the two separate zones?

A I think that we have a situation that wouldn't, where it would not be practical. For one think, we have the numbers 2

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



and 3 wells are flowing, and they do make some gas naturally, and I think that that would probably make our metering process more difficult. And again, the number 1 well does make a small amount of water.

Q Is the ownership common throughout the acreage involved here?

A Yes, sir, it is.

Q Is the overriding royalty all common?

A Yes, sir.

Q Is economics a factor on both of these leases in regard to the question of metering both zones? Would it be an economic practice to install meters to separately measure the production from each zone?

A I don't believe it would be considered economic to spend the money to install meters and maintain them in view of the fact that in each case we have a well in question that makes approximately three barrels per day, and does not produce a great deal of revenue.

Q And measurement into a tank would be more accurate than measurement by meter, you feel?

A We feel it would be more accurate and certainly less trouble to maintain than the meter.

Q Were Exhibits 1 through 4, inclusive, prepared by you?

A Yes, sir.



MR. KELLAHIN: At this time, we would like to offer in evidence Exhibit 1 through 4.

MR. UTZ: Without objection, they will be entered in the record.

MR. KELLAHIN: That's all the questions I have.

CROSS-EXAMINATION

BY MR. UTZ:

Q Mr. Johnston, I was not clear whether the interests in both pools were the same throughout this acreage?

A Yes, sir, they are.

Q And in both instances?

A Both instances, yes.

Q Now, what size tank do you propose to set to measure the oil from the Maljamar-Yates Pool?

A Either one hundred barrel, or one hundred and fifty barrel tank.

Q It is your intention, in order to clarify this thing, to produce the Yates Pool into the tank and measure, and then, from that tank into the common storage with the Pearsall Pools?

A Yes, sir.

Q And that same situation would hold true for your Baish and your Maljamar Pool, your Gulf State lease?

A Yes, sir.

MR. UTZ: Any other questions of the witness?

If no other questions, the witness may be excused.



(Witness excused.)

MR. UTZ: Any statements to be made in this case?

Case will be taken under advisement.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, NEW MEXICO

PHONE CH 3-6691



C E R T I F I C A T E

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 15th day of March, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My commission expires:
October 5, 1960.

I do hereby certify that the foregoing is a true and correct copy of the findings in the Examiner's hearing of Case No. 1910, heard by me on July 25, 1960.

Joseph A. Trujillo, Examiner
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

