BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 17, 1957

IN THE MATTER OF:

Case No. 1235

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTE FE
3-6691 2-2211

BEFORE THE
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IN THE MATTER OF:

Application of Continental Oil Company for permission to produce 35 wells in the Skaggs Pool, Lea County, New Mexico, into a common tank battery in exception to Rule 309 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order authorizing the production of 35 oil wells, located in Sections 13, 14, 24 and 25 of Township 20 South, Range 37 East and in Sections 19 and 30, Township 20 South, Range 38 East, Skaggs Pool, Lea County, New Mexico, into a common tank battery located in Section 19, Township 20 South, Range 38 East. All of said wells are in the Southeast Monument Unit. Applicant proposes to install three test stations to permit individual testing of said wells.

Case No. 1235

BEFORE:

Mr. A. L. Porter
Mr. Murray Morgan

TRANSCRIPT OF HEARING

MR. PORTER: The next case on the docket is Case 1235.

MR. KELLAHIN: Jason Kellahin, appearing for the applicant. We have one witness, E. V. Boynton.

MR. PORTER: Mr. Kellahin, you go ahead with your questions.

E. V. B O Y N T O N ,

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 E. V. Boynton.

Q By whom are you employed, Mr. Boynton?

A Continental Oil Company.

Q What is your position in the company at the present time?

A District Petroleum Engineer.

Q Have you testified before this Commission and had your qualifications as an expert engineer accepted by the Commission?

A I have.

MR. KELLAHIN: Are the qitness's qualifications acceptable?

MR. PORTER: They are.

Q Mr. Boynton, in your position as District Engineer, are you familiar with the application in the case now before the Commission?

A I am.

Q Will you state briefly what the nature of this application is?

A It is a request for exception to Rule 309, for permission to promote more than 35 wells into a single tank battery.

Q Before you get into your testimony in regard to the application itself, would you describe briefly to the Commission the area involved?

A This area involves Township 20, Range 37 East and 38 East, and includes approximately 2,283 acres.

Q Is that included in the Skaggs Pool?

A It is.

Q What is the producing formation?

A The Grayburg Formation.

Q At about what depth?

A At an average depth of about 3,950 feet.

Q Are you familiar with the allowables on the wells in that area?

A Yes, sir.

Q What have they been on a current basis?

A Do you mean top allowable?

Q The current allowables and production from the unit involved here?

A The current allowables from the 35 wells in question have been approximately 400 barrels per day, a little more than that.

Q Is this in a unit agreement?

A It is, yes, sir.

Q What is that unit?

A It's the Southeast Monument Unit.

Q I notice that you propose to have three thousand barrel tanks provided. What storage would that afford?

A With present production that will afford approximately seven days' storage.

MR. PORTER: Mr. Kellahin, a point of clarification. You mean three 1,000 barrel tanks?

MR. KELLAHIN: Yes. We will go into that in a little more detail later. (Marked Exhibit No. 1, for identification.)

Q Now, referring to what has been marked as Exhibit Number 1,

Mr. Boynton, what is that designed to show?

A Exhibit Number 1 is an ownership plat that shows the area in question, the lands operated by Continental Oil Company are cross-hatched in yellow; the boundary of the Southeast Monument Unit is shown by heavy dashed lines in the boundary of the participating; Permian participating area is shown by a lighter dashed line.

Q I notice there is a dotted line running down through the middle of the cross-hatched area. What is the significance of that?

A That is the boundary of the Permian participating area.

Q That is the area affected by this application?

A That is true, yes.

Q This participating area, is that Federal or State acreage?

A It is Federal.

Q Is it in one lease or more than one lease?

A It is, yes.

Q It is what?

A One lease.

Q One lease. Approximately what acreage would be included in the participating area?

A 2,283 acres, approximately.

Q The production from that area then, is it assigned to common beneficiaries throughout?

A It is. (Marked Exhibit Number 2, for identification.)

Q Referring to what has been marked as Exhibit Number 2, Mr. Boynton, what does that show?

A Exhibit Number 2 is a plat showing the location of the wells

involved and the flow lines leading to the three test stations.

Q Does that indicate then that you propose to have three test stations?

A Yes, that is correct.

Q Referring to the exhibit, will you outline how many wells each of these -- their location and how many wells they would serve?

A What is designated as Station Number 1 will have eight wells, it will serve eight wells; Station Number 2, located at the main battery, will serve 17 wells, and Station Number 3 ten wells.

Q So the largest number of wells served by any testing station will be 17, is that correct?

A That is true.

Q Do you know of other tank batteries which are similarly situated as that?

A Yes, I do.

Q Do you operate one such tank battery?

A That is right.

Q Do you know which one that is?

A It is the Myers "B-4 Lease in the South Eunice Pool.

Q That has been approved by this Commission?

A Yes, it has been.

Q Under the system which you propose to have, will there be adequate provision for measuring oil, gas and water or sediment on each well?

A Yes, sir, there will be. We can test three wells each day

with our present test facilities, which will enable us to test each well on the lease in a period of 12 days.

Q Do you mean by that you can test three wells at each test station, or three wells for the entire system?

A No, three wells for the entire system, one at each station.

Q Is there a provision for taking the test automatically?

A There is, yes.

Q Will you describe that briefly for the Commission?

A On Exhibit Number 3, near the center of the drawing is Test Station Number 2. It is composed essentially of two separators and a volume meter, and in addition to this it will have, these exhibits are tied together, a common orifice meter on the gas vent line of the test separator. In addition to measurement of liquids, the fluids through the volume meter, we have made provision to flow the fluids into a test tank and measure it by ordinary means with gauge line, if it is so desired.

Q Is that for the purpose of protecting your test equipment?

A That is true.

Q Go ahead.

A In the measurement of gas, we propose to calculate gas volumes automatically; however, for checking purposes we have provided in addition to our automatic integrator, an ordinary orifice meter so that a chart can be taken at the same time our automatic integrator is in operation, to check gas volumes.

Q Referring back to your Exhibit Number 2, is there provision made in each test station to measure fluids and gas by ordinary methods?

A That is true. This is representative of each test station.

Q The Test Station Number 2 represents the same system that you will have at the other two stations?

A That is correct. (Marked Exhibit 4 for identification.)

Q Referring to what has been marked as Exhibit Number 4, would you state what that shows?

A This is the one that I have just gone over. It represents a separator with the gas vent line coming off the top and an ordinaryorifice plate holder in the vertical riser of the vent line. On one side is illustrated the Barton libroscope automatic integrating device, and on the left is an ordinary orifice meter, with a differential two pounds and a quarter. By this common orifice meter we expect to check our automatic integrator to our own satisfaction, and to the Commission's.

Q Just what is a Barton libroscope meter?

A A Barton libroscope meter is a device that measures, calculates and records any volume of gas passing through an orifice plate.

Q Does it calculate the volumes?

A Yes.

Q Rather than just pressures?

A Volumes, I beg your pardon, yes, sir.

Q That will give you a permanent record of gas production, will it?

A It will.

Q Would you describe the operation of your metering devices for this arrangement?

A You mean the fluid meters?

A The fluid meters, yes, sir.

A The volume meter is a vessel that accumulates, isolates and discharges equal volumes of fluid in each cycle being recorded and sampled.

Q Does it make provision for taking samples throughout the filling of the tank?

A That is true. This particular vessel we have here takes a number of samples from the line leading from the vessel to the treater, during the dump portion of the cycle.

Q On the basis of those samples you could determine the water content and basic sediment in each load?

A That is true.

Q Is that correct?

A Yes.

Q Will you describe your provision for testing these wells automatically? As I understand, you say you can test three wells at a time. How does that operate?

A Well, there will be a test pumper at each test station, so that you can set each well flowing into each station up, to be tested consecutively, automatically, when one is through being tested for any determined period, you can go on and test the next one. In these both the fluid and the gas will be recorded on a strip of chart, and a sample of the fluid that was produced during the test will be directed to a sample cntainer; one will be provided for each well; to determine the gas and water content of the oil it would be necessary for the pumper, or someone to grind out the

fluid sample.

Q Will the system that the Continental proposes to use here enable you to keep an accurate record of production from each of individual well which is connected to this common tank battery?

A It will.

Q And accurately report the production from each of these wells?

A That is true, it will.

Q Will such a system result in waste?

A No.

Q Is there any danger of over producing any individual well as a result of the use of this system?

A Well, actually this system has many fail safe features that provide for, if something goes wrong, that the well will be shut in there by avoiding waste.

Q Is that an automatic arrangement?

A It is.

Q My question though, is, is this system practical in your opinion, for the purpose of producing these wells without over-producing any of the wells within their allowable?

A Well, with our test facilities that we have now, compared to what we will have when these automatic testers are installed, we will be able to keep a much more accurate record of each well's production.

Q Can the production be controlled automatically?

A Yes. We also have a production programmer that will flow any well for any length of time during the 24-hour period.

Q Then will automatically shut the well off?

A Yes, it automatically opens and closes the well to production.

MR. KELLAHIN: That is all the questions I have, unless you have something you want to add, Mr. Boynton.

A I don't think of anything right now.

MR. PORTER: Does anyone have a question of Mr. Boynton?

MR. KELLAHIN: I would like to offer this in evidence, our Exhibits 1 through 4, inclusive.

MR. PORTER: Without objection they will be received. Mr. Cooley?

CROSS EXAMINATION

By MR. COOLEY:

Q In your tests you said that every well in the unit, each of the 35 will be tested in a period of 12 days?

A Yes.

Q Is that allowing a 24-hour test period?

A That is allowing a 24-hour test period.

Q How would it be possible to test Station Number 2 when there are 17 wells connected?

A You have trapped me. It wouldn't be. It would be three times 17 days. I mean, it would be a period of 17 days.

Q It would take 17 days to test all wells in Station 2?

A That is right. There are 17 wells going into Test Station 2 for a 24-hour period; it would be 17 days.

MR. COOLEY: That is all.

MR. PORTER: Mr. Nutter?

By MR. NUTTER:

Q Mr. Boynton, I beileve you stated that the ownership of all the leases is by Continental, is that correct?

A This is actually one lease, Mr. Nutter.

Q Beg pardon?

A This is one lease. All the royalties are dedicated to a common beneficiary.

Q The Skaggs and Berger are both the same lease?

A Within the boundaries of the Southeast Monument Unit all the Permian production is considered to be one lease.

Q This entire participating area shares equally in all the wells that are drilled in that participating area?

A That is true.

MR. KELLAHIN: I would like to answer that. The area had been unitized, Mr. Nutter.

MR. NUTTER: That is what I wanted to make clear. There is one working interest owner, and the royalty owners share equally?

MR. KELLAHIN: There is more than one working interest.

MR. COOLEY: This is not one basic lease?

MR. KELLAHIN: For practical purposes, having been unitized.

MR. COOLEY: But there is still more than one basic lease?

MR. KELLAHIN: Yes.

MR. NUTTER: But one participating area.

Q Mr. Boynton, I can't follow the flow completely on this Exhibit Number 3. You had two separators at Test Station Number 2, is that correct?

A That is correct.

Q One will be a production separator?

A That is true.

Q Yet there is only one gas meter; how do you measure the gas

that is being produced when you are taking a test? You will use the meter, the gas meter when you are testing the well that is on test, won't you?

A That is true.

Q Will you be able to measure the gas that is being produced from the other well?

A The Warren Petco will do that, will measure all the gas. They maintain their own meters. We make no effort to do that.

Q So, the only meter you need will be a test meter to establish GOR and such?

A That is right.

Q Will the flow of oil from the production separator go directly into the tanks, or will it go to the treater first?

A It will go to the treater.

Q How about the flow of oil that is from the well that is on test, will it go to the treater?

A It will go to the treater unless it is directed to a test tank.

Q In which case it would have to be treated after it had been measured in the tank?

A Yes, it would be necessary to circulate it back to the treater.

MR. NUTTER: Those are the points I could not understand. I believe that is all, thank you.

MR. PORTER: Mr. Mankin?

By MR. MANKIN:

Q Mr. Boynton, did you indicate that there was three 1,000

barrels of storage, is that the figure that you gave, a total of 3,000?

A A total storage of 3,000 barrels, less, of course, the distance from the pipeline outlet to the floor of the tank, and also the fill line.

Q How many days' storage would you anticipate that would hold?

A Right now?

Q Right now.

A Approximately seven days.

Q You have, what, over 400 barrels per day production?

A It's a little more than that, some six to seven days.

MR. MANKIN: That is all.

MR. PORTER: Mr. Kellahin?

RE-DIRECT EXAMINATION

By MR. KELLAHIN:

Q Mr. Boynton, I overlooked asking you, there is at the present time a total of 35 wells in the participatig area, is that correct?

A That is true.

Q Do you contemplate drilling any other wells?

A No, sir.

Q In your application you asked for a provision for administrative approval of the adding of additional wells. Why do you feel that is necessary?

A Well, right now we do not anticipate the drilling of additional wells, but in the event that additional wells were drilled it would ease the problem of getting those orders enlarged.

Q Both for the Commission and for Continental?

A That is right.

Q And are the facilities which you propose to install adequate to take care of any additional wells?

A They are, yes, sir.

MR. KELLAHIN: That is all.

MR. PORTER: Mr. Boynton, do you know about how many wells of the 35, are capable of producing top allowable?

A There are several of them capable Mr. Porter. I don't know just exactly how many, but most of them are penalized, due to high ratios, at present.

MR. PORTER: How many tank batteries are you using now for the 35 wells?

A I think at present there are seven.

MR. PORTER: Seven tank batteries. Go off the record just a moment.

(Off the record.)

MR. PORTER: Back on the record, please. Does anyone else have a question of Mr. Boynton?

(Witness excused.)

MR. PORTER: Does anyone have a statement to make?

MR. KELLAHIN: If the Commission please, as a result of my conversation with Mr. Cooley, I find that in the advertising of this case there was no advertising on that portion of our application which asked for administrative approval, the system of administrative approval for additional wells to this system, and certainly if the

Commission feels that cannot properly be considered at this time, we would waive or withdraw that portion of our application, in order that you can go ahead with this other.

MR. PORTER: Thank you. Then you amend your application to that extent?

MR. KELLAHIN: If the Commission feels that it is necessary, yes, sir, and I think the Commission does.

MR. PORTER: We will review the application then in that light. Anything further in this case? We will take the case under advisement.

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 30th day of April, 1957.

Ada Dearnley
Notary Public - Court Reporter

My Commission Expires:
June 19, 1959