

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 4, 1961

IN THE MATTER OF:

Application of Continental Oil Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the installation of an automatic custody transfer system to handle the Monument Pool and Eumont Pool oil production from all wells presently completed or hereafter drilled on the Reed A-3 Lease, comprising the W/2, SE/4 S/2 NE/4, and NE/4 NE/4 of Section 3, Township 20 South, Range 36 East, Lea County, New Mexico.

Case No.
2151
&
2152,
2153,
2154,
2155

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. MORRIS: Application of Continental Oil Company for an automatic custody transfer system.

MR. KELLAHIN: I would suggest, since they are all automatic custody transfer cases, I believe they could be heard together.

MR. NUTTER: Also case 2152, 2153, 2154 and 2155.

MR. MORRIS: Let the record show that the cases called by the Examiner are all applications of Continental Oil Company for automatic custody transfer system.

MR. KELLAHIN: We have one witness, Mr. Nutter.

(Witness sworn.)

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RONALD McWILLIAMS,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Ronald McWilliams.

Q By whom are you employed, and in what position?

A Continental Oil Company, District Engineer, in Hobbs, New Mexico.

Q Mr. McWilliams, have you testified before this Commission as a petroleum engineer?

A Yes, I have.

MR. KELLAHIN: Are the qualifications acceptable?

MR. NUTTER: Yes, sir.

Q (By Mr. Kellahin) Are you familiar with the applications in Cases 2151 through 2155 now before the Commission on a consolidated record?

A Yes, sir.

Q Just briefly, what is proposed in these five applications?

A Briefly, we propose to consolidate several tank batteries in this area and to install ACT on these batteries.

Q Now, with regard to Case 2151, which is the application covering the Reed A-3 Lease, would you refer to what has been marked for identification as Exhibit No. 1 and explain that exhibit,

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please?

A Yes, sir. Exhibit 1 is a location plat of the general area in the vicinity of our Reed A-3 Lease, showing the wells, the existing flow lines, the proposed flow lines, the existing tank batteries and the tank battery site of the consolidated tank battery.

Q Exhibit No. 1 indicates you will be commingling production from two separate pools, does it not?

A Yes.

Q Are you seeking approval to commingle this production?

A We will seek approval to commingle this production under Rule 663 and will file the necessary forms.

Q That is Order R-663?

A Yes.

Q The productions is from what pools?

A From Eumont and Monument Pools.

Q Covered by Order R-663?

A Yes, sir.

Q Referring to what has been marked Exhibit 2, would you discuss that exhibit, please?

A Exhibit No. 2 is a schematic drawing of the proposed tank battery hook-up. It will be pretty much a standard tank battery hook-up. We will have provisions for testing each well separately, and we will have the usual separating and treating vessels. The normal flow of oil will be through the production separator and treater, and will then go through the BSW monitor to

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assure the oil is meeting pipeline specifications. If the oil doesn't, it will be diverted back through the treater, and, therefore, only pipeline oil will go into our surge tank.

Q What steps will you take to prevent the loss of oil in case of equipment failure?

A In the event of equipment failure we will either install adequate storage or automatic shutdown equipment.

Q You haven't determined yet which will be installed?

A No, sir.

Q Referring to Case No. 2152, which is the application covering the application covering the Sanderson B-10 and Sanderson B-15 Leases, would you refer to Exhibit No. 1 and discuss that Exhibit?

A Exhibit No. 1, again, is a location plat of the general area in the vicinity of our Sanderson B-10 and B-15 leases. We have shown our existing flow lines, our proposed flow lines under our consolidation, the existing tank batteries, the proposed tank battery site of the consolidated battery, and the pools from which the wells produce.

Q Now, is there a common purchaser on both of these leases?

A Yes, sir. Atlantic Pipeline takes the oil from both leases.

Q Referring back to Case No. 2151, was there a common purchaser on that?

A Yes, sir. Atlantic is also the purchaser on the Reed

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A-3 lease.

Q This Exhibit No. 1 again indicates you would be commingling from two separate leases. Are you seeking approval of this commingling?

A No, sir; although we designate these as two different leases for our purposes, actually they are part of the same basic lease. This is Federal Land, and they belong to the same basic Federal lease, and Continental has seen fit to separate them for purposes of convenience in accounting, et cetera.

Q Actually, no commingling from leases?

A No, sir; it is the same basic lease.

Q Is the royalty ownership common throughout?

A Yes, sir. The U. S. Government is the royalty owner.

Q Is the royalty owner common on the Reed A-3 lease?

A Yes, sir.

Q Referring to what has been marked for identification Exhibit 2 in Case 2152, would you discuss that exhibit, please?

A It is a schematic drawing of our proposed consolidated tank battery. It, again, is a standard tank battery hook-up. We have provided, or made provision so that we can test each well separately and, again, the normal flow of oil will be through the production separator and treater. As the oil leaves the treater it will be monitored to assure that it meets pipeline specifications. If it doesn't it will be diverted back to the treater until it does. If it is meeting pipeline specifications it will go into our storage



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tank.

Q Here, again, what measures will you take to prevent the loss of oil in case of equipment failure?

A We will either install automatic shutdown equipment or provide adequate storage.

Q This case, again, indicates you would be commingling production from two separate pools; is that correct?

A Yes, sir.

Q Is that again Eumont and Monument Pools?

A Yes, sir.

Q Are you applying for approval to commingle under provision of Order R-6637

A Yes, sir.

Q Referring to Case No. 2153, covering the Sanderson A-11, A-14 and AB-14 Leases, will you refer to Exhibit No. 1 and discuss that exhibit, please?

A This exhibit is our location plat of the general area in the vicinity of our Sanderson A-11, A-14 and AB-14 leases. It shows the existing flow lines, the proposed flow lines after the battery is consolidated, the existing tank batteries and the proposed site of the consolidated tank battery.

Q Now, this again indicates you are commingling production from separate leases; is that correct?

A Yes, sir.

Q Are these from the same basic lease?



A The Sanderson A-11 and A-14 are part of the same basic Federal lease. The Sanderson AB-14 is under the provisions of an existing operating agreement and production must be maintained separately. Therefore, we would like to request permission to commingle the production from Sanderson AB-14 with the production from the Sanderson A-11 and A-14 leases after separate measurement.

MR. NUTTER: Where is AB-14 on Exhibit No. 1?

A It is a 40-acre tract in the NW/4 of the NW/4 of Section 14.

MR. NUTTER: It is a one well lease, then?

A Yes, sir.

Q (By Mr. Kellahin) How do you propose to account for the production from that individual lease? Will it be metered separately?

A Yes, sir. It will be metered separately before being commingled.

Q What type of meter do you propose to use there?

A We will use a positive volume or dump type meter.

Q Now, is there common royalty ownership on the acreage involved aside from that you have just discussed?

A Yes, sir. It is all Federal acreage.

Q No State acreage?

A No.

Q Is there a common purchaser from the lease?

A Yes. Atlantic Pipeline is the purchaser from these leases.

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Q Referring to Exhibit No. 2, would you discuss that exhibit, please?

A Exhibit 2 shows the schematic drawing of our proposed consolidated tank battery. Notice it is slightly different than the others in that, from the existing tank battery location on the Sanderson A-11 lease we will run a 4-inch production line and a 2-inch test line. This will allow us to test each well on these leases separately and the production will be commingled from the A-11 and A-14 prior to going through the separator and treater. When it leaves the treater it will be monitored to insure that the oil meets pipeline specifications. If it doesn't it will be diverted back through the treater. If it does it will go into storage. The Sanderson AB-14 lease which we mentioned previously will come through its own treater and will also be metered, or be monitored to see it meets pipeline specifications. If it does it will then be metered and go into the common storage with production from A-11 and A-14 leases. If it doesn't it will be diverted back through its treater until it does. Therefore, we will never be measuring anything from the Sanderson AB-14 lease other than pipeline oil.

Q I note you have four tanks for emergency storage on this particular installation. What is the reason for that, Mr. McWilliams?

A In order to provide adequate storage for the maximum unattended period it is necessary we have a little more tankage on this lease since it produces more oil than the others.

Q Is that the facilities which will prevent the loss of oil

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in event of equipment failure?

A Yes, sir.

Q What is the maximum unattended period on all of these?

A Under our present operation, or method of operations, it is probably 24 hours.

Q Referring to Case No. 2154, covering the Sanderson B-14 lease, will you refer to Exhibit No. 1 and discuss that exhibit, please?

A Exhibit No. 1 is a location plat showing the area in the vicinity of our Sanderson B-14 lease. It also shows the different pools from which the wells produce and the tank battery location. There will be no consolidation or revision of the storage facilities on this lease.

Q Now, the exhibit also states you would be commingling production from two pools. Is the situation the same in this case as in the preceding cases?

A Not exactly. We have been commingling production for several years under provision of R-663, and have received permission.

Q Is there a common royalty owner?

A Yes, sir, Federal Government.

Q Who is the pipeline purchaser on this lease?

A Shell Pipeline.

Q Referring to what has been marked Exhibit 2, would you discuss that exhibit?

A ~~Exhibit No. 2 is a schematic drawing of our proposed~~

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tank battery hook-up with ACT. It is pretty much of a conventional hook-up. The provision is made that each well may be tested separately and again the oil is metered to insure that it meets pipeline specifications prior to going to storage. If it doesn't it is diverted back to the treater until it does.

Q What steps will be taken to prevent the loss of oil if there is an equipment failure?

A In this case we will either provide adequate storage or automatic shutdown equipment.

Q Referring to Case No. 2155 covering the Reed B-23 and the Reed B-24 leases, and referring to Exhibit No. 1, will you discuss that exhibit, please?

A Exhibit No. 1 is, again, a location plat for the Reed B-23 and B-24 leases, showing the existing flow lines, our proposed flow lines under the consolidated battery set-up, the existing tank batteries, and the site of our proposed consolidated tank battery. It also shows the pool from which the wells produce.

Q Exhibit 1 also indicates you would be commingling production from two separate leases; is that correct?

A Yes, sir.

Q What is the situation as to those leases?

A These leases, again, were separated by Continental; actually they are part of the same basic Federal lease. They have been separated by Continental for convenience in referring to locations and in accounting procedures, that sort of thing.



Q Actually, you are not commingling from two different leases?

A No, sir.

Q Are you commingling production from two different pools?

A Yes, sir.

Q What is the situation in regard to that?

A Actually, on the Reed B-23 lease we have two tank batteries at the present time, and one tank battery we have been commingling production under provision of Rule 663 for several years. Under the consolidated battery set-up we will bring two additional Eument wells on the Reed B-23 lease into the consolidated battery and four Eunice wells from the Reed B-24 lease into the consolidated battery, and we will seek approval for commingling this production under provision of Rule 663.

Q Is there common royalty ownership on this acreage?

A Yes, sir. The Federal Government is the royalty owner.

Q Now, Mr. McWilliams, you have supplied the Commission with an Exhibit 3 in each of the cases being heard on this consolidated record; is that exhibit the same for each of these applications?

A Yes, sir. Our ACT unit will be the same in all instances.

Q Referring to Exhibit 3 in each of the cases, would you discuss that exhibit, please?

A Yes, sir. This is a schematic drawing of a standard ACT unit, using a PD meter, positive displacement. The oil will be received into a surge tank. The pipeline runs will be regulated

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by high and low level operation controls. The installation is equipped with all the usual safety features to prevent oil from being run in event of equipment failure on the ACT unit itself.

Q Does it have an automatic shut-in?

A Yes, sir. If the meter is not working properly oil cannot be run. It automatically shuts itself down.

Q Is this a type of installation that has previously been used with approval of the Commission?

A Yes, sir.

Q Or is Continental Oil Company using this type of installation in other areas?

A Yes, sir.

Q Now, from your testimony it appears that Atlantic Refining Company and Shell Oil Company are the only two purchasers involved?

A That is correct.

Q Have you contacted them in regard to the installations proposed?

A Yes, sir, we have.

Q Have they agreed to that type of installation?

A Verbally they have, yes.

Q In your opinion would the granting of these applications be in the interests of conservation and the prevention of waste?

A Yes, sir, they would.

Q Is it a more economical operation than your present



operation is?

A Yes, sir. The tanks in this area have been in existence for several years, and Continental is either going to be faced with extensive repair work or replacing of the present storage facilities, and in lieu of this we have decided to install ACT.

Q Were Exhibits 1, 2 and 3 in each of the cases before the Commission prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time I would like to offer 1 through 3 in each of the cases.

MR. NUTTER: Exhibits 1 through 3 in Cases 2151 through 2155 will be admitted in evidence.

MR. KELLAHIN: That is all the questions I have, Mr. Nutter.

MR. NUTTER: Does anyone have any questions of Mr. McWilliams?

CROSS EXAMINATION

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MR. KELLAHIN: That is all the questions I have, Mr. Nutter.

MR. NUTTER: Does anyone have any questions of Mr. McWilliams?

CROSS EXAMINATION

BY MR. PAYNE:

Q In the event you use the emergency storage rather than the other features to take care of equipment failures, you propose to install sufficient storage to take care of the production during the maximum unattended period?

A Yes, sir.

Q In the event you decide to go the other way, and rather than have emergency storage install fail-safe equipment, what type



do you propose?

A Well, on the pumping wells we can use a high pressure shut-off switch. On our flowing wells we can use the conventional high and low pressure shut-off arrangement.

Q You have both pumping wells and flowing wells on each of these leases?

A Yes, sir.

Q Now, referring to Case 2153 where you are commingling production between leases, as I understand your proposal it is to separately meter the production from the AB-14 lease?

A Yes, sir.

Q What about the production from A-11 and A-14; are you going to have a meter on that production?

A Yes, sir.

Q You are going to?

A No, excuse me. On that we can get the production from the A-11 and A-14 leases by the difference.

Q Well, then, you are going to be charging any shrinkage that might take place to either one group of leases or the other leases, are you not?

A We probably would. However, with the ACT your effects of shrinkage should be minimized.

Q Granted it is minimized, do you feel there would be any shrinkage with ACT system?

A That is rather difficult to say. I suppose with any type

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of system there will be some shrinkage.

Q Would you be willing to run the allowable only through the meter on the AB-14 lease?

A Yes, sir. We can put a daily allowable count on this meter here that will shut the lease in when its daily allowable has been produced.

Q Would you be willing to use a non-reset type meter?

A Yes, sir.

BY MR. NUTTER:

Q Mr. McWilliams, as I understand it the system you propose to use for the Reed A-3 lease and the system that you propose for the Sanderson B-10 and B-15 are identical with the exception of the treater, which is on the test leg of the battery; is this correct?

A Yes.

Q One being a metering treater, the other a standard heater treater?

A Yes, sir. The reason for this, we have, through this battery consolidation, managed to salvage several treaters, and we are endeavoring to use as many of the existing vessels which are in good shape as possible, and where we are buying new treaters we are using the metering treaters. Where we are using standard treaters we are providing the oil, gas and water legs with meters.

Q Does this metering treater used in 2151 on Reed A-3, is this a vessel that measures the amount of oil discharged as well as

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the amount of water?

A Yes, sir.

Q So you do have a meter then on both discharge legs of it, and you have installed a gas meter on the gas outlets?

A Yes, sir. In all of these installations we have provided on our test vessel for metering the oil, the gas, and the water.

Q Now, it appears there are quite a number of wells on the lease involved in Case 2151, fourteen, to be exact, and you show one surge tank and one emergency storage tank. Is this going to be adequate?

A Again, this is a schematic drawing. There will be probably two surge tanks; although we have 14 wells, the Eumont wells do not produce a large volume of oil. The tanks on this lease are 400-barrel tanks. Actually, I believe one tank would provide adequate storage at the present time.

Q All of these tanks on the surge tank operate between two levels which are controlled by Verak automatic controls; is that correct?

A Yes, sir.

Q What, normally, will be the low working level and high working level?

A That will have to be determined by the allowable on the lease and the levels that we like to work between. In each instance it will probably be different.

Q I was just wondering how much available storage you would



have in a surge tank if you had a malfunction at its high working level?

A In that case we would have emergency storage. There is a spill-over line from the surge tank into the emergency storage tank, so you would have the capacity of your emergency storage tank. This would fill up and provide you probably with two or three days storage.

Q What do you mean, probably? Actually, or just maybe?

A It depends on the amount of storage we provide. In other words, it will spill over into an emergency storage tank that has adequate storage for the maximum unattended period. In other words, the pumper who is attending the lease would have time to catch the malfunction and take steps to remedy it before it is lost.

Q What is the maximum unattended time, 16 hours?

A Under the present operating conditions, that is about right.

Q And you will provide adequate storage to take care of production for 16 hours then?

A Yes, sir.

Q Or automatic shut-in facilities?

A Yes, sir.

Q Now, the production that comes in from the Sanderson A-11 in 2153, what do you have there, a central header on the Sanderson A-11 lease where all of the wells, except the one on test, come into a common 4-inch line?

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A There is an existing tank battery there now, and it has a header of the standard type, where the wells either go to production or test. When we consolidate this battery we will lay a 4-inch line from the production line on the header down to our consolidated battery side.

Q So, presumably, all the wells except the one on test are going into that header?

A Yes.

Q You have one flow line which you stated was a two-inch line which would bring the production from the well on test?

A Yes.

Q Are there any separators?

A There are now, but under the consolidation the separating and treating would be on the Sanderson A-14.

Q This is just raw production from that well?

A Yes, sir.

Q On the test line of this particular installation you have a treater; on the production line you have a separator and a treater. Does the production need to be separated prior to going into a heater treater on test?

A On test, no. The wells, at the present time, are not making sufficient volume of gas that it requires an additional separator. The capacity of the treater is such it will handle the gas from one well.

~~Q As I understand it, in response to questions by Mr. Payne,~~



this meter which is shown downstream from the three-way valve on the production coming from the Sanderson AB-14 would be a non-reset and you would take the allowable from that meter, and that is all?

A Yes, sir.

Q And you will have, for emergency storage, tanks here, as well as one storage tank?

A Yes, sir. In many cases this is a schematic drawing. Although we have shown four tanks there, actually there may be more. The existing tank battery, I believe, on that lease has eight tanks, although some are in pretty bad shape. Some could be used for emergency storage, and since we don't have use elsewhere for them they will be left at the battery site. In all cases, although maybe we have shown one tank, there may be more than the number of tanks shown on the schematic drawing.

Q In any event, you will have storage for 16 hours?

A Yes.

MR. NUTTER: You may be excused. Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That is all.

MR. NUTTER: Does anyone else have anything they wish to offer? Case will be taken under advisement, and the hearing will be adjourned.



STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

ss

I, JUNE PAIGE, 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 5th day of January, 1961.

June Paige
Notary Public - Court Reporter

My Commission expires:

May 11, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2151, 2152, 2153, 2154 and 2155 heard by me on 1/4, 19 61.

[Signature], Examiner
New Mexico Oil Conservation Commission

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I N D E XWITNESSPAGE

RONALD McWILLIAMS

Direct Examination by Mr. Kellahin

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Cross Examination by Mr. Payne

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Cross Examination by Mr. Nutter

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E X H I B I T S

<u>Number</u>	<u>Marked for Identification</u>	<u>Received In Evidence</u>
Continental Oil No. 1 (2151)	2	13
" " No. 2 (2151)	3	13
" " No. 3 (2151)	11	13
Continental Oil No. 1 (2152)	4	13
" " No. 2 (2152)	5	13
" " No. 3 (2152)	11	13
Continental Oil No. 1 (2153)	6	13
" " No. 2 (2153)	8	13
" " No. 3 (2153)	11	13
Continental Oil No. 1 (2154)	9	13
" " No. 2 (2154)	9	13
" " No. 3 (2154)	11	13
Continental Oil No. 1 (2155)	10	13
" " No. 2 (2155)		13
" " No. 3 (2155)	11	13

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