

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 28, 1959

EXAMINER HEARING

IN THE MATTER OF:)

Application of John H. Trigg for an automatic)
custody transfer system and for permission to)
produce more than 16 wells into a common tank)
battery. Applicant, in the above-styled cause,)
seeks an order authorizing it to install an)
automatic custody transfer system to handle)
the production from all Caprock-Queen wells on)
its Federal Trigg Lease in Sections 4 and 9,)
Township 14 South, Range 31 East, Chaves)
County, New Mexico.)

Case 1802

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. PAYNE: Application of John H. Trigg for an auto-
matic custody transfer system and for permission to produce more
than 16 wells into a common tank battery.

MR. CAMPBELL: Jack M. Campbell, Campbell and Russell,
Roswell, New Mexico, appearing on behalf of the applicant. I
have one witness, Mr. Snow.

(Witness sworn.)

GENE A. SNOW

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

DIRECT EXAMINATION

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BY MR. CAMPBELL:

Q Will you state your name, please?

A Gene A. Snow.

Q Where do you live, Mr. Snow?

A Maljamar, New Mexico.

Q By whom are you employed? A John H. Trigg Company.

Q In what capacity?

A Production Superintendent.

Q You are an engineer, are you not?

A No, sir.

Q You have testified before this Commission previously in connection with the operation of this water flood project, have you?

A Yes, sir, I have.

Q And you are in charge of the operations under this project, are you?

A Yes, sir, that's right.

Q Are you acquainted with the application of Mr. Trigg relating to a proposed lease automatic custody transfer system in Section 4 and Section 9, Township 14 South, Range 31 East, relative to the John H. Trigg Caprock-Queen Pool water flood project?

A Yes, I am.

(Marked Applicant's Exhibit No. 1, for identification.)

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Q Mr. Snow, I have handed you what has been identified as Exhibit No. 1 in this case and ask you to state what that is and state to the Examiner what system is involved here and generally describe the operation of the system to the Examiner, please.

A Well, this is a drawing showing our lease in Sections 4 and 9, the automatic battery itself, and the Lact Unit. We propose to install a three-phase metering separator in the East and West Half of Section 4, also in the East and West Half of Section 9. Each one of these metering separators will handle eight wells.

It will measure and record the volume of water and oil and gas. Then after it's been metered and recorded, will be dumped back into a main line carrying the oil to Item No. 2, which is an oil and gas separator, and it will continue on down the black line to a free water knockout, there the oil and water will be separated. The water will go to our present injection system and be recycled. The oil will continue on down the black line to Item No. 4, which is a heater treater. There it will have remaining basic sediment and water taken from it and continue on down the red line through Item No. 5, which is a BS and W monitor. If this monitor sends good oil, valve Item No. 9 will open, valve No. 10 will close. This will send the oil into a surge tank, Item No. 6. There it will overflow into a sales tank, Item No. 7. The level of this sales tank will be controlled between the upper and the middle flow. When the oil level reaches the middle flow it will cause

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the transfer pump, Item No. C, to come on and transfer the oil to the Lact Unit itself.

Supposing the BS and W monitor sends bad oil, valve No. 9 will close and No. 10 will open, sending the oil round to three 500 barrel reserve tanks, or bad oil tanks. When this happens an outside ride light comes on warning you that you have bad oil. Now, Item A, which is a recirculating pump which is fixed automatically with timer tabs so that you can recirculate any desired time, the tank bottom in Item No. 6 or Item No. 7, whichever one you choose, the valves out of tank No. 6 and 7 are automatic where you can turn them on or off and they will operate in conjunction with recirculating pump A.

The recirculating pump A also serves as another pump if you have bad oil in your reserve storage tanks No. 8, to recirculate back through your heater treater. Supposing you have a malfunction in your Lact Unit, letting the oil level rise to the top flow in tank No. 7, it will close valve No. 9 and open valve No. 10, routing the oil to your reserve storage.

The Item No. B in the sales tank 7 is a thermostat. Our crude has to be 50 degrees or warmer before the pipeline will purchase it. If this thermostat sends less than 50 degree oil, the transfer pump, Item No. C, will not come on and valves 9 and 10 will route the oil into reserve storage.

Q Do you have any comments with regard to the equipment



on the Lact Unit itself?

A Yes, sir, the oil will move through transfer pump C down through deaerator D, strainer E, and Item V, optional shutoff valve; this valve is to prevent siphoning from sales tank No. 7. This shutin valve is operated in conjunction with pump C. When the pump is on the valve is open. When the pump is down the valve is closed.

Then on through Item G, which is a panel. This panel consists of lights showing what valves are open, which valves are closed and what's in operation at the time. Item H, the DP meter with safety shutin. This safety shutin consists of a feature F, pump C comes on and the DP meter itself does not record, it automatically shuts right back down, which would prevent oil going down the line unrecorded. Also this meter has an allowable counter in it which you can set it if you want to produce 1500 barrels a day or whatever the amount desired, it will meter that much oil and then shut down.

Item I is a set stop valve, Item J prover loop bypass, which is for providing the meter. Item K, sampler with container. As this transfer pump C comes on your sampler automatically comes on at the same time. The sample container is installed off of the skid, Lact skid itself, so as to provide a general sloping plane for the oil to move from the sampler to the container, that way not even trapping any water. Item L is a back pressure valve,

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which for pipeline purposes they want you to use this pump under certain amount of pressure.

Q Now, Mr. Snow, as I understand it then, in this system that you are installing you are going to have separate metering devices so that you will meter the water and oil from all of the wells on these leases?

A Yes, that's right.

Q As indicated by your Item No. 1 at the completion of the system there?

A That's right.

Q Now, with regard to possible overflows or anything of that sort, as I understand it you have three 500 barrel reserve tanks either for overflow or for bad oil?

A That's right.

Q Now, do you have somebody who will be present and living in the field, the area where this system is being operated?

A Yes, sir, we do.

Q Where will the system be situated?

A The system will be situated almost on the section line between Sections 4 and 9. It's just slightly south of the section line, right in the center of the lease.

Q Who purchases the oil from these properties?

A Texaco and New Mexico Pipeline.

Q Have you discussed this or have you presented them

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with a drawing of this proposed system?

A Yes, sir, I have.

Q I hand you what has been identified as Trigg's Exhibit No. 2 and ask you if you will please read that to the Examiner.

A "Gentlemen: We have received your proposal as attached to your letter of September 15, 1959, and we find that the installation as described will be satisfactory. We do wish to point out, however, that we will expect to operate initially under a short test period in order to give the installation every opportunity to free itself of any bugs. Texas-New Mexico Pipeline Company will accept this installation."

Q That's signed by an official of Texas-New Mexico Pipeline Company?

A Yes, sir, Mr. W. B. Smith.

Q Do you believe that this system can be utilized and that the oil can be treated and measured both from the wells and through the system without causing any waste?

A Yes, I do.

Q Do you believe that the system as devised has sufficient safety devices to avoid any waste by virtue of poor operation of the system?

A Yes, sir.

Q Or in case of any defect or breakdown?

A Yes, sir.

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

MR. NUTTER: Anyone have any questions?

CROSS EXAMINATION

BY MR. PAYNE:

Q In connection with your last question, what happens if you have a flow line break?

A Well, the same as if we have it now. We would just get on the ground, but we will not be operating under shutin pressure as some Lact Units do. Instead of shutdown we go into reserve storage, so there would be no excessive pressure on the flow lines.

Q Well, now, is this lease under water flood presently?

A Well, we have a pilot program out there on the West Half of Section 4.

Q Is this Federal Lease? A Yes, sir.

Q 4 and 9, is that the total lease?

A Yes, sir, just a minute, there is some more --

Q A non-contiguous portion, isn't there?

A Well, no, sir, there is a contiguous portion to this here, but it isn't productive. That's all that is productive.

Q But when you attempt to describe this lease you'd say that Sections 4 and 9 are a portion of this Federal Lease, is that right?

A Yes, sir.

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Q Do you have any problem getting the oil run?

A No, sir.

MR. PAYNE: Thank you.

BY MR. NUTTER:

Q Mr. Snow, I notice that you have a strainer Item No. E here.

A Yes.

Q I notice on the East Half of Section 4 you have Item No. 1, a metering separator. How will you test the wells in that east end of the Section 4 for individual well tests?

A We have a manifold at each test separator where we can route the well desired to be tested through the test separator. The rest of the wells will go through the common line to the battery.

Q In other words, this metering separator is for test purpose only?

A That's all.

Q The production is separated in Item No. 2, the separator down here at the tank battery?

A That's right.

Q So you are able to have all your wells on production with the exception of the one that's going into the test separator?

A Yes.

Q Now, what does the production from the test separator



do, join the common line then that comes back into the production separator?

A Yes, sir.

Q After it's passed through the metering separator?

A It meters it and records it, there's a pump on the test separator that picks it up out of the separator and puts it right back into the line.

Q And comes back with the oil and passes through the separator a second time?

A Yes, sir.

Q Now, I didn't understand which one of the float frames in tank 7 when the overflow leaves the level of the middle float, is that when it turns to transfer pump No. C?

A Yes, sir.

Q And when the fluid level would reach the lower float, that's when it would turn it off?

A That's right.

Q Is tank No. 6 normally full?

A Yes, sir.

Q And tank No. 7 would be full somewhere between the lower valve and the middle valve under normal operation?

A Yes, sir.

Q You have tank No. 8, I think there are three of them. What is the total capacity of those three tanks?

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A 1500 barrels.

Q Do you expect that this will be sufficient storage as soon as the water flood project has received a response from water injection?

A It will be sufficient for enough time to let us correct a malfunction, whatever it may be.

Q What is the maximum number of hours, continuous hours, that this lease will be unattended?

A Twelve.

Q Do you think that the 1500 barrels storage capacity there is adequate to hold the production of the lease for twelve hours?

A I do.

Q Under maximum production?

A Yes, sir, unless it gets --

Q Under the water flood?

A Unless it gets higher than what we figure right now. We have more tanks available that we could set in there if we saw fit to.

Q There's no provision in the event that these three storage tanks should fill up, there's no provision for shutting in any of the wells, is there?

A No, there isn't.

Q What should happen if the three tanks fill up and all



the available storage gone?

A Well, they would run over.

MR. CAMPBELL: What was your answer?

A They would run over. But we have the same possibility now but we certainly don't want to put any oil out on the ground, if it's getting close to a borderline we'll just set another tank. One reason that I prefer this system to a shutin situation is under the system if the BS and W monitor sends bad oil and it shuts in, your whole thing remains shut down until somebody comes back and turns it back on. Lot of times you got just a contrary slug of water that your BS and W monitor might sense. If it does so it would route the bad portion of the oil to the reserve storage and then if the oil cleared up why it would automatically send it right back into the surge tank and the sales tank would continue right on production.

Q Now the valves at the bottom of tanks 6 and 7 I believe you said were automatic. What turns those on?

A They are in conjunction with recirculating pump A. These valves can be on automatic or they can be manual. Supposing you desire to recirculate the bottom in tank No. 6 for five minutes each day to prevent a buildup. You could put the valve coming out of tank No. 6 on automatic and set this recirculating pump A to run for fifteen minutes and as the pump comes on the valve opens. Likewise you can circulate both of them if you desire

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or just one or none. I might add the valves coming out of the reserve or the bad oil storage, they are manual.

Q On the tanks numbered 8?

A Yes, sir. So if you want, you have got some bad oil in there and you want to circulate it back through your heater treater, you can turn the valve coming out of 6 and valve coming out of 7 and you have turned your pump on and pick up the oil out of them.

Q And open the valves on 8? A Yes, sir.

MR. NUTTER: Any further questions of Mr. Snow?
He may be excused.

(Witness excused.)

MR. CAMPBELL: I would like to offer Exhibits 1 and 2 in evidence.

MR. NUTTER: John H. Trigg's Exhibits 1 and 2 will be admitted. Anything further?

MR. CAMPBELL: No, sir.

MR. NUTTER: Does anyone have anything further for Case 1802? We will take the case under advisement and adjourn the hearing.

(Whereupon the hearing was adjourned.)



