



DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, by whom you are employed, and in what capacity?

A Harold Frost, Production Engineer for Atlantic Refining in the Midland Regional Office, Midland, Texas.

Q Are you familiar with the application in Case 2162, and with the area covered thereby?

A I am.

Q Have you previously testified before this Commission as an expert witness?

A I have.

Q Will you proceed to explain what the application is, and what the request of Atlantic is in this case?

A In December, 1959, when the Commission issued Order R-1557, it granted us permission to commingle our production from the Langlie Federal, Langlie Federal "A" and Langlie Federal "B" leases in the Justis field. At this time we propose to install an automatic custody transfer system for this commingling production.

Q Will you describe the area and the proposed ACT?

A The schematic diagram on the left shows the lease hook-up as approved by the Commission in their previous order, and inside the heavy dashed line at the right is the ACT Unit as proposed now. We would use one of our existing three 224-barrel tanks as our surge tank. There is a transfer pump with a pressure gauge, and

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thermometer downstream of the pump. We then go through a combination strainer and air eliminator to remove any foreign particles, or gas or air. Downstream of the eliminator is our pipeline sampler which is controlled by pulses from the P.D. meter. This will give us samples in proportion to the rate of flow through the meter. The meter will be temperature compensated, will have a non-reset counter and will read the barrels of oil corrected to 60 degrees.

Our meter proving loop consists of four valves with a bleed valve between two in-line block valves to preclude any valve leakage. The back pressure valve will maintain pressure in the system above the vapor pressure of the crude, and the check valve will prevent backflow from the pipeline.

Our control panel will stop the transfer pump at the low surge tank level, which will be located two to three feet above the pipeline connection in the tank. This will hold all circuits locked out of function until the oil level returns to the high level switch. When the oil reaches the high level switch the transfer of oil will be started. Manual override switch will permit putting the unit in operation if the level does not reach the top switch. Monthly set-stop count will prevent the over-running of the scheduled allowable and it must be manually reset each month. The transfer of oil will be stopped if the flow rate drops below a pre-set minimum or malfunction of the meter. This will lock out and must be manually reset. The two extra tanks will be used as overflow tanks in case the unit is shut down <sup>due</sup> to a malfunction, and these tanks are



sufficient to store any production during unattended operation.

Q Did you receive the approval of the pipeline company?

A Yes. They are in agreement with this proposal.

Q That is shown by a letter?

A We have a copy of a letter from the Texas-New Mexico Pipe Line Company.

Q Is this ACT system substantially similar to those which have been heretofore approved by this Commission?

A Yes, it is.

Q Is there anything else you care to explain about the system?

A I believe that is all.

MR. BRATTON: If the Commission please, we will ask that the plat of the area which has been handed to the Commission be marked as Exhibit No. 1, and for the purpose of simplification, let's just mark the statement as Exhibit 2, and that contains the letter from the pipeline company and the schematic diagram.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A They were.

MR. BRATTON: We offer in evidence Exhibits Nos. 1 and 2.

MR. UTZ: Without objection Exhibits 1 and 2 will be entered into the record in this case.

MR. BRATTON: We have nothing further to offer.

BY MR. UTZ:

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Q Mr. Frost, what are the two pools this lease is producing from at the present time?

A Blinebry and Drinkard-Tubb. We have one on the Langlie Federal Lease, a dual completion in both zones, and a dual completion on the Langlie Federal "A" Lease producing from both zones.

Q Total oil produced which you will use this ACT for is how much?

A 184 barrels per day.

Q And you will have three 224-barrel tanks?

A Yes, sir.

Q Do you intend to complete any more wells in these pools which will go through this system?

A At the present time we are considering one more well to be handled by the system.

Q How often do you expect to attend the lease?

A The pumper will be around there every day.

Q Do you have storage enough for approximately three days?

A Yes.

Q Therefore, you feel that the high level safety switch is not necessary?

A No, sir, we don't think so. It will overflow into the other two tanks if it reaches the high level in the surge tank.

MR. UTZ: Are there any other questions?

BY MR. PAYNE:

Q Mr. Frost, is the oil from either of these two pools



corrosive?

A We have had no corrosion problems to date, no indication that there will be corrosion.

Q Have you had any paraffin problems?

A No, sir.

Q You propose to use a positive displacement meter?

A That's right.

Q Are these flowing wells or pumping wells?

A These are flowing wells, one pumping, three flowing wells.

BY MR. NUTTER:

Q Mr. Frost, which leases are which on this Exhibit?

A The Langlie Federal is the N/2 of the SE/4; the Langlie Federal "A" is the S/2 of the NE/4, and the Langlie Federal "B" is the N/2 of the NE/4.

Q On this schematic drawing of your automatic custody transfer there is no monitor depicted. Is there assurance this is going to be pipeline quality oil at all times, and no monitor is necessary?

A The pipeline company does not want a monitor on there. If, at any time, we do run water to them then they are going to require something to prevent water entering the custody transfer unit.

Q How will they know water isn't entering into it if they don't have a monitor?

A ~~By the sample they take out at the end of the month.~~

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Q Which might show water did enter the pipeline, but at the time it is entering they won't know?

A Not necessarily. I think the pumper will know since he will be checking it every day anyway.

Q Now, on your commingling loop over on the left, you do have heater treaters?

A That's right.

Q Are these actually installed?

A The two shown in solid lines are installed; the two in dashed lines will be installed when those two zones start producing water.

Q There is some actual water production at the present time in the area?

A There is in two wells.

Q But the heater treaters seem to be taking all the water out, and it is going to the pipeline?

A Yes, sir.

Q What is the normal storage in the two overflow tanks, zero?

A Zero, normally, that's right.

Q So you have 448 barrels of empty storage capacity available at all times?

A That is correct.

Q And since there is no monitor the only time that storage would be necessary would be in the event of malfunction?

A That's right.

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E X H I B I T S

<u>NUMBER</u>	<u>EXHIBIT</u>	<u>IDENTIFIED</u>	<u>OFFERED</u>	<u>ADMITTED</u>
Ex.#1	Plat	4	4	4
Ex.#2	Statement	4	4	4

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2162, heard by me on Jan. 20, 1961.

*[Signature]*  
 \_\_\_\_\_, Examiner  
 New Mexico Oil Conservation Commission

