

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 8, 1959

EXAMINER HEARING

IN THE MATTER OF:

Case 1719

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
Phone CHapel 3-6691

and Gas Company. We have one witness, Mr. Anderson.

(Witness sworn.)

R. M. ANDERSON

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

DIRECT EXAMINATION

BY MR. PIPER:

Q Will you state your name, please?

A R. M. Anderson.

Q By whom are you employed, Mr. Anderson?

A Sinclair Oil and Gas Company.

Q Are you familiar, Mr. Anderson, with the application of Sinclair Oil and Gas Company in Case No. 1719?

A I am.

Q Could you briefly summarize for us what is sought by that application?

A We are asking permission to consolidate three sweet batteries and to consolidate two sour batteries on our R. L. Brunson Lease which produces, which contains 8 wells which produce from five pools.

Q Is Sinclair Oil and Gas Company the owner and operator of the subject lease?

A Yes, sir.

Q Now, Mr. Anderson, have you ever testified on any

previous occasions before the New Mexico Oil Conservation Commission?

A Yes, sir, I have.

Q And were your qualifications accepted on those occasions?

A Yes, sir.

MR. PIPER: If it please the Commission, does the witness' qualifications meet with approval?

MR. NUTTER: Yes, sir, please proceed, Mr. Piper.

Q Mr. Anderson, have you prepared an ownership map of the area involved here?

A Yes, sir, I have, and I have marked it Exhibit 1.

(Marked Sinclair Oil & Gas Company's Exhibit No. 1, for identification.)

Q Does that map show the subject lease and the offset operators?

A Yes, it does, and I have identified the subject lease, which consists of two non contiguous tracts, by coloring them yellow. Now, the lease occupies the Northwest Quarter of the Southwest Quarter of Section 3 and the West Half of the Southeast Quarter of Section 4 in Township 22 South, Range 37 East, Lea County. This lease consists of eight wells, one of which is dually completed. There are three Drinkard Pool completions at about 6500 feet. There are two Hare-McKee Pool completions at

4
about 7350 feet. There is one Tubb completion at 6100 feet, there are two Penrose-Skelly completions at 3650 feet, and there is one Paddock completion at 5100 feet, and I have on a later exhibit identified those specific wells.

Q Now, referring to the subsequent exhibits, Mr. Anderson, have you prepared any diagrammatic sketches of the present battery setup on the lease and also the proposed battery setup as contemplated in the application?

A I have, and I have indicated those diagrammatic sketches as Exhibits 2 and 3. Exhibit 2 is the present status and Exhibit 3 is the status after consolidation, the proposed status.

Q Now, with reference to these diagrammatic sketches, Exhibits 2 and 3, will you explain those for the Examiner, Mr. Anderson?

A Yes. I have shown all wells on the Sinclair-Brunson Lease on this exhibit, and I have colored them as indicated on the lower left-hand corner of the exhibit, identifying the zone they are producing from, and I have schematically shown the five batteries that will be in existence and the status of the lease if this application were denied.

The first battery, incidentally, I have used a nomenclature here, "S" stands for separator and "HT" for heater treater, and the 500 indicates a 500 barrel tank and 210 indicates a 210 barrel tank, and the "GB" is gun barrel and "H" is heater, and,

I have, the top battery is labeled Drinkard battery. We showed three wells flowing into that battery. The second battery is labeled Paddock battery and we have one well. The third battery is a Penrose-Skelly battery, and we have two wells flowing into that battery. The fourth battery is a Hare-McKee battery and we have two wells producing into that battery, and the fifth battery is the Tubb battery and we have recently dualled completed Well No. 1, making a Tubb producer, which has occasioned this lease revision work that we are here asking permission for today.

And the 210 barrel tanks are shown dashed on this exhibit because they have not been purchased and installed at this time, but the need for them without the consolidation is apparent.

Now, Exhibit 3 is a similar sketch showing the status of the batteries after consolidation of the three sweet batteries and the two sour batteries, and we have similarly indicated the flow lines from the separate wells to the separate batteries, and the top battery is a sour battery, I have labeled it as such, and it shows the Paddock well and the Penrose-Skelly wells flowing through separate separators through heater treaters and through a measuring device, and in that regard we wish permission to use the positive displacement meters or dump metering, dump type vessels, and we intend to use both types in this installation as we feel they will be more applicable due to the flow rates and so forth.

The sweet battery I show as having the three sweet pools, Drinkard, the Hare-McKee and the Tubb flowing through separate separators, heater treaters, in the case of Drinkard and McKee, and then metering devices downstream of the heater treaters or the separator in the case of the Tubb. I believe that's all.

Q Do any of these crudes present a corrosion problem, Mr. Anderson?

A No, they do not. No corrosion problem on this lease.

Q Has the Commission, to your knowledge, previously approved similar type of installation and equipment?

A Yes. Yes, they have.

Q Are the royalty ownership accounts common throughout, the royalty accounts?

A Yes, the royalty is the same under both of these non-contiguous tracts, and the royalty is the same as to depth, all zones are subject to the same royalty.

Q Now, by what means do you propose to measure the commingled crude, the amount of these commingled crudes from time to time that are in storage?

A Well, crude in storage will be measured in the conventional manner, using the gauge line.

Q And, as I understand it, the amount of crude for each pool that will be individually measured, as you previously testified, as shown on Exhibit 3?

A Yes, they will be measured prior to commingling.

Q How often do you contemplate taking production tests, calibration tests?

A We will take very frequent tests at first until we are satisfied as to the accuracy of your installation, and, we will make calibration tests probably at any time that it appears that one is needed. We are measuring both streams prior to commingling and then we will measure the commingled crude so we will have a constant check on our accuracy and, therefore, the calibration checks I feel are less important for that reason. So we will make them as they are required. We propose to make them as required by field operations or as required by the Commission.

Q Sir, have you prepared any data concerning the economics of the proposed battery setup?

A Yes, I have. I have taken the difference in equipment as reflected by Exhibits 2 and 3 and I have priced that equipment in the conventional manner and I have listed these savings in investment and equipment that will be afforded by the granting of this application, on Exhibit 4, and briefly what that amounts to is we will not have to buy two new 210 barrel tanks with walkways and fittings and what not for the Tubb zone valued at a new price of \$3,490.00. We will recover two 500 barrel tanks through this consolidation, and that will, and I valued those at 75% of their value because they are serviceable

at present, and that is our standard bookkeeping procedure and we will recover one 210 barrel tank, and that tank is labelled "B G", gun barrel, that is a 210 barrel tank that we are using there. And we will recover one heater that we have on the Penrose battery that we are using to heat production prior to putting it in the tank, and that equipment is \$9,182.00.

However, this installation will require us to purchase some additional equipment. We will have to purchase two heater treaters to put on the Penrose and Paddock zones, and we will have to purchase five meters or metering dump time metering vessels at about \$505 each. That price includes the package deal on the meters, which is a snap acting dump type and a few other refinements, so the total expense is \$5,431, which results in a net savings in equipment of \$3,751.

Q Have you prepared, Mr. Anderson, any further data concerning, for example, the selling price of commingled crudes so that we could have a comparison on that?

A Yes, I've prepared a sheet which I named "Statistical Analysis of Commingling", and I have shown all of the pertinent statistical data here that I thought would be of interest. Shows that there the number of wells producing from each pool, it shows the daily production from each pool, both oil and water, shows if the crude is sweet or sour, gives the A.P.I. gravity of the crudes, gives the pipeline that we are selling

through, price per barrel, and then I have calculated the selling price of the crudes separately. That would be \$394.99, and likewise for the sour, for a total of \$465.14 per total.

Now, if we were to commingle the crudes we would have some gravity improvement by virtue of the Tubb distillate, and at the same time we would recover the high gravity, sixteen cents a barrel that the Tubb distillate would be subject to. And so we find that the selling price of the sweet crude is \$398.25 and the sour crude is \$70.00, for a total of \$468.25 a day commingled. And that is a difference of \$3.11 a day or \$93.30 a month increase in selling price of the crudes by virtue of commingling.

Q In your opinion would this proposed battery installation have any effect on correlative rights?

A No, I do not believe correlative rights are involved.

Q Well, in your opinion will waste occur if this application is not granted?

A Yes, I believe that waste would occur if the application were not granted.

Q Now, at this point, Mr. Anderson, do you have anything to add to your testimony that we may have missed?

A No, sir, I believe that's all.

Q And were Exhibits 1 through 5 which we have discussed here, were those prepared by you or at your direction?

A They were.

MR. PIPER: I would like to formally offer Exhibits 1 through 5, Applicant's Exhibits 1 through 5 in evidence in this hearing.

MR. NUTTER: Sinclair's Exhibits 1 through 5 will be admitted.

MR. PIPER: I believe that completes my questions of this witness, if it please the Commission.

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

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Anderson, on which portion of this non-contiguous lease are your tank batteries to be located?

A Approximately centrally located from north to south on the western 80 acre portion.

Q Now, I note that under your proposed plan you'll have less storage capacity than you presently have. Do you feel that you have sufficient storage capacity here?

A Yes.

Q Under your proposed installation?

A Yes. The storage capacity at present on the lease, a lot of it is occasioned by the fact that you must have in most cases at least two tanks. Penrose-Skelly battery only has one tank, but we can, also we have some flexibility with that gun

barrel tank.

Q Now, the Drinkard oil in this area is definitely sweet crude?

A Yes, sir.

Q What do you do with the Tubb gas, Mr. Anderson?

A We recently completed the well and we intend to, as a result of administrative application, which we have not made yet, we intend to use the Tubb allowable to gas lift the Hare-McKee wells. We recently encountered difficulties with those wells due to the fact that they have produced paraffin and sand and it is quite a problem to artificially lift them, so we are tentatively considering that course of action provided we get the proper approval.

Q You do not feel it is necessary to use a corrosion resistant type meter on your sour crudes in this area?

A Apparently they are not sour enough to cause equipment troubles. The batteries are both old and we have had corrosion free history with them, we've had no corrosion problem.

MR. PAYNE: That's all, thank you.

BY MR. NUTTER:

Q Mr. Anderson, I note on your Exhibit No. 1 that the east 40 is labeled Sinclair and Cities Service and the west 80 is labeled a Sinclair. Is that an error in that exhibit or is

that the status of the ownership of those two tracts?

A No, that is an error in the exhibit. Cities Service has a working interest. The working interest is common under both tracts.

Q It is identical under both tracts?

A Yes.

Q And the overriding royalties and the royalties are identical too?

A Yes, sir.

Q Now, what is this, is this Tubb production going through two stage separation?

A Yes, sir. We have the high pressure separator set near the well and the low pressure separator is down at the battery.

Q Now, I do not see any heater treater on that Tubb line, is there no necessity for treating that?

A No.

Q Makes no water at all? A No.

Q Now, how are you going to test your meters, Mr. Anderson?

A They would have to be tested by shutting in one pool and producing the other pool through the battery and checking against the gauge line measurement in the tank.

Q In other words, up here in the sour battery if you

wanted to test your Penrose-Skelly meter, you would have to shut it at Paddock?

A Yes, sir.

Q And vice versa? A Yes, sir.

Q And when you get down to the sweet battery, you are going to have to shut down two pools while you test the meter in the third?

A Yes, sir.

Q Now, how do you make your individual well test, will that be by the same means by shutting in?

A We will just have to shut in the other wells in the pool in that one pool and make individual well tests through the meter.

Q Is this gravity for your commingled production a weighted average of the gravities?

A Yes.

Q Taking into consideration the volume of oils for each one of the separate gravities?

A Yes, sir, I looked up the specific gravity in the gravity tables and multiplied that by the number of barrels and got that sum for each of the crudes and then divided by the total number of barrels which give me the actual specific gravities of the mixture, and then go back to the table to convert it back to A.P.I.

Q And you feel that the installation of this commingling system is not only going to save money on cost of equipment, but will actually make money by the amount of three dollars and eleven cents a day?

A Yes, sir.

Q Your purchaser knows about that?

A We purchase it.

MR. NUTTER: Any further questions of Mr. Anderson?

He may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything further in Case 1719? We will take the case under advisement and take Case 1720.

