

Case No.

1449

Application, Transcript,
Small Exhibits, Etc.

1449
CASE: 1449 Greridge Corp. application for
order permitting the consolidation of tank
batteries.

Handwritten notes (rotated):
"I have a letter to you
about the tank batteries
which I have just received
from the Department of
War."
"I have a letter to you
about the tank batteries
which I have just received
from the Department of
War."

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1449

TRANSCRIPT OF HEARING

May 28, 1958

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

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MAY 28, 1958

IN THE MATTER OF:

CASE NO. 1449 Application of Graridge Corporation
for an exception to Rule 309 of the
Commission Rules and Regulations.
Applicant, in the above-styled cause,
seeks an order permitting the con-
solidation of tank batteries to re-
ceive the production from more than
sixteen wells in the North Caprock
Queen Unit No. 1 in Chaves and Lea
Counties, New Mexico, which was es-
tablished by Order No. R-1145. The
applicant further seeks permission to
install automatic custody transfer
equipment on the above-referenced
Unit.

BEFORE:

Elvis A. Utz, Examiner

T R A N S C R I P T O F P R O C E E D I N G S

MR. UTZ: The hearing will come to order, and the next
case is 1449.

MR. PAYNE: Application of Graridge Corporation for an
exception to Rule 309 of the Commission Rules and Regulations.

MR. ELLIOTT: Mr. Examiner, R. L. Elliott, vice-president
and general counsel of Graridge Corporation. Our application is
two-fold: One is for the exception to Rule 309 for consolidation
of more than sixteen tank batteries, and secondly, for approval of

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this Commission for the installation of automatic custody transfer equipment. I have three witnesses.

MR. UTZ: Let the three witnesses stand to be sworn.

(Witnesses sworn)

THOMAS FORD,

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

DIRECT EXAMINATION

BY MR. ELLIOTT:

Q Will you state your name, address, Company and position with that company?

A I am Thomas Ford with Graridge Corporation, Breckenridge, Texas. I am manager of production.

Q Mr. Ford, will you state your -- tell the Examiner your education?

A I graduated from Texas A & M College in 1946 with a degree in petroleum engineering, and a degree in mechanical engineering.

Q What is your experience since graduation?

A I worked for ten years for an independent producer as engineer and production superintendent. During that time, I installed -- designed and installed and operated several water floods and did all types of production problems that came along. For the past two years I have been with Graridge Corporation in my present capacity, and have dealt with all types of production problems including water flood experiences in Texas and New Mexico.

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Q Have you had experience with the water flood operations of Graridge in the Caprock area?

A I have.

Q And also for the Ibex Company in Eddy County?

A I have.

Q Are you familiar with the application that we have on this hearing?

A I am.

MR. ELLIOTT: Mr. Examiner, would the qualifications and education as set forth by Mr. Ford qualify him as an expert before this Commission?

MR. UTZ: His qualifications are acceptable.

Q Mr. Ford, I hand you here a plat. Will you tell the Examiner what that is?

A This is a plat of the Graridge Corporation North Caprock Queen Unit in Lea and Chaves Counties, New Mexico, showing the unit area outlined in hashed marks, showing the present tank batteries, showing the present water injection plant, the proposed water injection plant, and the flow lines in the area.

Q Did you prepare this Exhibit?

A I did.

MR. ELLIOTT: Mr. Examiner, at this time I would like to introduce this Exhibit as Exhibit No. 1.

MR. UTZ: Do you have other copies of this Exhibit?

MR. ELLIOTT: Yes, sir.

Q Mr. Ford, according to this Exhibit, you have shown on here the present tank batteries existing on the North Caprock Queen Unit, is that correct?

A Yes.

Q In other words, the red dots as shown there are the present tank batteries existing --

A Correct.

Q How many are there?

A Twenty.

Q Now then, the lines which are connecting the batteries and wells indicate the present flow lines from the present producing wells to the tank battery?

A That is correct.

Q You show a water -- a present water injection plant. Now, which one is the location of that?

A The one about the middle of Section 31.

Q Now then, you have another shown as a proposed water injection plant?

A Yes. That is in Section 7, the northeast quarter.

Q That particular plant is not in existence but one that is planned on further expansion of the unit?

A That is correct.

Q Mr. Ford, I have here Exhibit 2. Would you tell the Examiner what this is?

A This is a map of the same area showing the proposed flow line and tank battery arrangement, the arrangement that we propose to put into effect if we are approved here. It shows the one central tank battery which we propose which is -- do they have copies of this? It shows the one central tank battery which we propose

as indicated by the red triangle. It shows the flow line system which we propose. It shows the present water injection plant to the north, and the one to the south indicated by the same symbol in this case. It shows all of the proposed water injection wells. It shows the free water knockout equipment placed at three different points in the flow line system to extract the water from the produced fluid and it shows the lines where the produced water will be returned to the water injection plants to be returned to the formation. These lines are indicated by the heavy blue lines. The two north free water knockouts will return the water to the north plant, and the south free water knockout will return the water to the south plant.

Q As I understand it, this particular Exhibit shows the producing wells in the North Caprock Queen Unit which has been approved by this Commission as they will be connected through the flow line shown on this plat to the central tank battery in the northeast quarter of the northeast quarter of Section 6?

A That is correct.

Q Now, this water flood project, I assume, will in the near future be producing water along with the oil, and this blue line on the Exhibit indicates a return for this water -- produced water?

A Yes, it returns it to the water injection plants where it can be reinjected into the ground.

Q You mentioned this free water knockout point here. Is that the measure taken to try to free the oil of all the water before

it gets into the central tank battery?

A Yes, that is the purpose. A free water knockout is a piece of equipment designed to separate water from oil, and rather than take all of the water to the central tank battery and then extract it, we are extracting it there and two other places as well.

Q Do you have any other observations to make about this plat? Is there anything on there that you haven't mentioned that you want to?

A No, except that the plat does show the simplicity of our collection system for our produced water, which we have only three relatively short lines to handle all of our produced water, whereas, back in Exhibit 1, if we were not allowed to consolidate tank batteries, we would have to run a produced water line from every battery back to the injection plants so this water could be reinjected.

Q In other words, the blue line that you show twice on Exhibit 2 would have to be done twenty times under the present system?

A That is correct. Of course, it would be possible that one line could be extended to take care of two or three different batteries, but every red dot would -- that would be a producing battery, would have to be connected to the injection plant.

Q Mr. Ford, how many producing wells are there in this unit?

A Roughly sixty-two. No, I believe it is fifty-six at this time. Six of them are temporarily abandoned.

Q And these fifty-six wells are now producing into 20 different tank batteries?

A That is correct.

Q And under this application, it is your proposal to produce these fifty-six producing wells into one central tank battery?

A Yes. As time goes on, though, as shown on this Exhibit No. 2, certain of these wells would be converted to injection wells, and then, of course, would not be -- would not go to the battery.

Q When the unit is finally completed as to the injection wells, how many producing wells will that leave?

A Out of the original pattern there are still two tanks that are not in. I believe that leaves seventy tanks that are in. Theoretically, there would be thirty-five injection wells and thirty-five producing wells.

Q And the final outcome would be thirty-five wells tied into one central tank battery?

A That is correct.

Q Mr. Ford, will you explain to the Examiner the importance of this operation in the saving of manpower and efficiency of operation?

A I estimate that this consolidation will save us ten or fifteen thousand dollars at the minimum in lines to gather produced water. I estimate that it will save us two hundred and forty man hours per month in gauging and treating oil. I believe that we will save ourselves and the State and our partners considerable money by giving -- being able to better treat our oil at one central

system. Also, in a water flood there is a great deal of water produced and considerable treating problems; by having it all at one place, we feel that we can put in an adequate treating plant too, to do a very efficient job.

Q In other words, it is your opinion that if this system is approved and set up that it will probably save waste and increase the production, which can be sold ultimately?

A That is correct.

Q Is there any way that you can see that it would reduce the amount of production that could ultimately be produced?

A No.

Q In other words, it is your opinion that it can only create more efficiency and additional production by being able to efficiently being able to handle it in this manner?

A Yes. I would say in that connection that -- something that you haven't brought in, that these wells will have to be adequately tested, and it would be possible to result in waste if you did not keep adequate control of your water flood by not knowing what the individual wells did.

Q In other words, you will continue to keep a test on the individual wells periodically to know what they are making?

A That is correct. There will be a well test on every well every month.

Q In other words, you propose to set up a program after this is put into effect to test each well every month?

A That is correct.

MR. ELLIOTT: Mr. Examiner, inasmuch as this deals with two parts, would you like to question him before we go into the automatic custody transfer part?

MR. UTZ: You are going to question this witness with regard to automatic custody transfer too?

MR. ELLIOTT: Yes.

MR. UTZ: I think you can go ahead.

Q (By Mr. Elliott) Mr. Ford, I have here a diagram. Will you tell the Examiner what it is?

A This is a flow diagram of the proposed automatic custody transfer system to be used in this North Caprock Queen Unit.

Q I would like to introduce this as Exhibit 3. Mr. Ford, did you help prepare this or design this particular A C T unit?

A Yes, sir.

Q Will you start out with your unit and follow through the whole system and explain to the Examiner as best as you can this particular setup?

A On the top left-hand corner you have the inlet to the whole system. At this point, your produced fluid from the wells is coming into the system. First it comes into a ten-foot by twenty-foot horizontal knockout. This separates the water and allows it to go into your water disposal system. Coming out of the top of this free water knockout, the oil comes up and goes into the top of the heater treater. This is a twelve by twenty-seven and a half foot type H B natural automatic heater treater and de-

signed to have capacity to handle considerably more fluid than we'll be likely to produce. If water should get over in this and be treated out as a result of the heat treatment, it will come out the bottom of the heater treater and go to the water disposal. The oil goes from the top of the heater treater over to what we call a settling tank. It goes down through the top of the tank through a perforated down comer to the bottom of this cone bottom settling tank. This tank, in formal operation, runs -- stays full up to the bypass line, which is shown going over to the adjoining tank. Located near the bottom of this tank is a circuit of pipe on which is located a five gallon pump which circulates oil out of the tank through a regular BS and W minitor and back into the tank. This monitor determines the percentage of BS and W in the oil that is circulated past its probe. If this BS and W reaches a high content -- it will probably be set at one half of one percent -- then the monitor will activate the shut-in valve up on the bypass line to the adjoining tank; close that valve and at the same time it will activate a fifty barrel per hour pump which will take oil off of the bottom of this cone barrel tank and circulate it back through the heater treater. This oil will also -- this 50 barrels per hour pump will also be activated by a time clock once or twice a day to take the bottom off of this cone bottom settling tank. We feel that we will get very excellent treatment here and have a very minimum of waste. After the oil -- well, first, let's assume that the shut-in valve -- that the BS and W

monitor has detected bad oil and has shut the valve at the top. In this case we have bad oil in our tank, and the fluid level rises until it reaches about the nineteen foot level in this twenty foot tank, at which point it bypasses out and goes to these three overflow tanks where we store bad oil, should any be produced, should this system fail in any manner. So there is a provision for -- if the pipeline pump doesn't work, if anything goes wrong with the system, the system does go ahead and produce. Bad oil is pulled into these five hundred barrels overflow tanks. Going back to normal operation, with the shut-in valve working normally, the oil goes from the settling tank into the pipeline run tank again, down through a perforated riser, down comer, I believe it is called, and from there the oil is taken out through the normal pipeline outlet and brought down and around to the pipeline pump. At the pipeline pump, this pump will be about a hundred and fifty barrel an hour pump designed to work.--It will be a centrifugal pump-- designed to work at constant pressure; just past the pump there will be a pipeline sampler. These two items will be furnished by the pipeline and will be built to their specifications, and also to those specifications that I mentioned. From there the oil goes through a strainer, through a gas eliminator and through the positive displacement meters. These meters are S 12, I believe A. O. Smith S 12 meters, and they have a capacity of about 170 barrels per hour. The meters are arranged in tandem. Normally, one meter will be used and the other cut off, but both meters will be available for

use any time, or both meters can be run in tandem at the same time. As the fluid passes the meter, it comes to a back pressure valve. This is a constant pressure -- back pressure valve which keeps a constant pressure on the meter system at all times because the meters will act -- will operate more accurately at a standard pressure and a standard rate of through-put. From there the oil normally goes on through the pipeline. This back pressure valve is often necessary in this case because oil will drift into the pipeline if it were not for a back pressure valve. In normal operations, which is mainly what we have been covering so far, these meters are tested at regular intervals in this ten-barrel meter prover. This meter prover is a ten-barrel tank and is reduced in size at top and bottom and calibrated very carefully to hold exactly ten barrels and a hundredths of a barrel above or below. A vernier can be determined in normal operations. You prove these meters by running ten barrels through the meters, then checking it with this meter prover. These meters are temperature compensated and have ticket printers on them so that you can -- so that they actually compensate for temperature as they run. The meter prover is equipped with thermometers and everything necessary to determine the temperature so that you may accurately calibrate your meters. Normally, your meters do not read exactly ten barrels when the meter prover -- when you run ten barrels through there, the meter prover will not reflect exactly ten barrels, but very close to ten barrels and a correction factor is applied to the meters based on the results of this meter prover reading. You

will note that this sytem is also arranged so that should the meters have trouble or anything go wrong in the LACT unit, that you can continue to produce good oil and put it in all of the storage tanks and be able to run the oil as you would normally from any tank battery by opening and shutting the proper valves.

Q Mr. Ford, what are the chances of this metering system being erroneous?

A They are mechanical, and as such, are subject to failure. The principal failure that has been experienced so far has been water off the meters due to salt or some other foreign substance in the oil. It is the plan of the pipeline company and ours to test these meters into the meter prover every day until -- for possibly two weeks, until we are satisfied that they are reading correctly, and then we will probably set them up for a weekly test period for a while and eventually to a monthly reading. If the meters are showing water, there is a certain definite maximum that we would allow them to show in a month's time, and should they show more than that, then we would discontinue using that meter. The amount of variation that they can show in a month's time is one barrel in four thousand.

Q How does that compare to the margin of error in manual gauging?

A There is not any way to really say that. They have run tests and put ten good pipeline gauges out to gauge ten tanks, a bunch of tanks in a row, and they find that they get a different answer on every one of them. I would say that it is probably normal to have a

quarter of an inch error in a five-hundred-barrel tank, which would be roughly three-tenths of one percent. The maximum that we could allow this meter to vary during a month would be only a tenth of that much, or a little less than a tenth of that, or .025 percent.

Q Then, it is your opinion that this LACT unit will definitely have more accurate measurement throughout the weeks and months than it could be done by the best gauger?

A That is correct.

Q What are the safeguards against the BS and W slipping through this filtering tank you've got and into the system? Is that pretty well controlled where it is going to be treated and cannot get loose into the system?

A Yes. First, you have your BS and W monitor which is catching it there in the first tank. By the time that first tank gets half full, the BS and W which is half of one percent, the pipeline will accept up to one percent, but when the oil in that tank gets up to a half of one percent, the oil is circulated back for retreatment. So we have that first safety factor, and if that should fail, it is conceivable that that thing could fail, though it is possible to walk up to this monitor and read directly the percent of BS and W going by it at any time -- still, if that should fail, you would be building up BS and W in your settling tank. You would have a small amount of room in your pipeline run tank and then you would actually run oil on through your pipeline system and sell it to your pipeline, but again, there would be a sampler before the fluid goes through the

meters and that amount of BS and W that does get by would be reflected in your samplers.

Q The proposal is to run all the oil from this unit into one central tank battery, and this LACT system will meter the oil out of this one central tank battery?

A That is correct.

Q Mr. Ford, I have here a letter that you are supposed to have written to Service Pipeline Company that explains this system to a certain extent. Would you verify that that is the letter that you wrote?

A Yes, this is the letter that I wrote to Mr. C. E. Wilson of Service Pipeline Company.

MR. ELLIOTT: I would like to introduce this as Exhibit 4 for your personal information, and also I should like to enter in evidence a reply and approval by Service Pipeline Company to that letter as Exhibit 5.

Do you have any further statements to make?

A No. I believe that's all we have.

MR. UTZ: Is there any question of the witness?

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Ford, what type of tests do you anticipate making for the individual wells?

A I propose a trailer mounted portable test unit that will have individual meters on it and will individually measure your oil

and your water.

Q And how often will you test these wells?

A At least once a month.

Q Once a month. Is this entire area unitized?

A You are referring to this Exhibit 1?

Q Yes, sir.

A Yes, that within the hashed marks, and you will note, though, that this one on the left hand side, this Ambassador State "N" is not in the unit as of this date. And the Texas Company up here in the, I believe it is the northwest of the northwest of 32, is not in the unit as of this date.

Q Do you anticipate the Ambassador 40-acres will become a part of this unit?

A We anticipated that, to begin with. I don't know the status of that well at this time.

Q You are not making application at this time to include that well in this application, are you, automatic custody transfer and --

A No, we are not. It will be water injection well if it does come into the unit.

MR. UTZ: Does anyone else have any other questions of the witness?

MR. ELLIOTT: I would like to get one more question in there.

REDIRECT EXAMINATION

BY MR. ELLIOTT:

Q Mr. Ford, when do you propose to start the installation of this central type battery and this automatic custody equipment?

A As soon as approval is obtained and equipment can be obtained. The approximate -- it will take approximately a month to get some of the equipment on hand.

MR. ELLIOTT: That's all.

A I might say that some of the wells in the south part of this flood will probably not be put on into the central tank battery until such time as the water flood progresses down that way. It wouldn't be an instantaneous thing.

MR. UTZ: The witness may be excused.

(Witness excused)

W. R. WILLIS,

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

DIRECT EXAMINATION

BY MR. ELLIOTT:

Q Mr. Willis, will you state your name, address, company and position?

A W. R. Willis with the National Automatic Tank Company, Wichita Falls, Texas, as district manager.

Q Mr. Willis, have you have considerable experience with this automatic custody transfer equipment in the last few years?

A Yes, sir. I have been with National Tank Company twenty years, and for the last eighteen months I have been interested in

LACT operations in the central Texas area.

Q Have you personally followed the installation of one or more of these units in areas in Texas, New Mexico or Oklahoma?

A Yes, sir. We have done design work for Shell, and The Texas Company at the present time.

Q Did you assist in designing this particular LACT unit?

A Yes, sir, I did.

Q Was this diagram drawn at your instance and request?

A Yes, sir. Sketches were sent in to our drafting department to prepare this paper.

Q From your experience and the experience and recommendations of your engineers, do you feel that this system will work on the Caprock unit?

A Yes, sir, we do.

MR. ELLIOTT: That's all. Do you have any questions?

MR. UTZ: Perhaps he can answer one question.

CROSS EXAMINATION

BY MR. UTZ:

Q Let's see, is the water knockout after the tank battery or before?

A Prior to the entrance to the treating unit, sir.

Q Is the treating unit before --

A Yes, sir, the treating unit is ahead of the settling tank. The horizontal free water knockout comes in the stream prior to the entrance of the oil to the heat treater unit, and then the clean

oil leaves the heat treater unit and goes into the six hundred barrels settling tank.

MR. UTZ: Are there any other questions? If there are no other questions, the witness may be excused.

(Witness excused)

J. C. DODSON,

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

DIRECT EXAMINATION

BY MR. ELLIOTT:

Q Mr. Dodson, will you please state your name, address, company and position with that company?

A J. C. Dodson, district superintendent of the Lovington district for Service Pipeline Company.

Q Mr. Dodson, are you familiar with the diagram of the LACT unit that we have been discussing here in this hearing?

A Yes, sir.

Q Have you and your company had an opportunity to approve or disapprove the installation of this unit on the North Caprock Queen Unit?

A Yes, sir. At a joint meeting of our district and division management, along with the engineers, we did study the equipment and arrangement and approved it.

Q Your company has approved the installation of this equipment?

A Yes, sir.

Q There was some discussion by Mr. Ford about checking this unit for a period of time to determine its accuracy. What is your proposal, if the approval is given for this installation and it is made, in the way of checking this to determine accuracy?

A Yes, sir, we plan to check it until such time as we know that it is accurate; that it is measuring quality and quantity accurately.

Q And your company is willing to accept this metering device as being accurate for oil purchased by you from these properties?

A Yes, sir. At the end of the test period, if it proves that it does determine quality and quantity, then Service Pipeline Company will accept it.

Q Do you have any further statements you would like to make in connection with this?

A I believe not.

MR. ELLIOTT: That's all.

MR. UTZ: Are there questions of the witness? If there are none, the witness may be excused.

MR. ELLIOTT: Mr. utz, I would like at this time to offer in evidence the five Exhibits which I have given you and ask that they be accepted.

MR. UTZ: Is there objection to the entrance of the five Exhibits in this case? If not, they will be accepted.

I would like to recall Mr. Ford for one question which I

neglected to clear up. You can just sit right there.

THOMAS FORD,

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

RECROSS EXAMINATION

BY MR. UTZ:

Q In regard to the overflow tank, that is a 1500 barrel capacity, is it?

A Yes.

Q Will this station be manned at all times, or if not, how often?

A This station will only be manned once a day, but there will be installed a signal light on the highest structure there, which seems to be the heater treatment, and any time the BS and W monitor shuts off, the valve in the top there which stops oil going into the pipeline, then the flash red light will be activated. It is contemplated that even should that -- should the system fail after night and no one see it until in the morning, that there would be no oil lost. Fifteen hundred barrels should hold it.

Q That should take care of it?

A Yes, sir.

MR. UTZ: That's all I had.

MR. ELLIOTT: There is one other thing that wasn't brought out that you might like to know.

REDIRECT EXAMINATION

BY MR. ELLIOTT:

Q Mr. Ford, would you tell Mr. Examiner how this meter works in stamping the recording of the -- so that you can measure from day to day how this ticket works in the meter?

A The meter has a gauge on it which will read in barrels, and these barrels are temperature compensated. There is a ticket printer on the meter so that you can walk up to it at any time, insert the ticket, press the handle and get a reading of the amount of oil as of that time. We contemplate each morning taking a reading from the meter plus a reading from our pipeline run tank and use that as our daily production. In other words, the change in the pipeline run tank will affect the amount that has gone through the meters, as far as what has been produced in the one day. We will have that further check should anything go completely wrong with everything. We will have a daily production figure each day which will give us a further check on the accuracy of the installation.

MR. UTZ: Anyone else have a question of the witness? The witness may be excused again.

(Witness excused)

MR. UTZ: Are there any other statements in this case?

MR. BUELL: May it please the Examiner, Guy Buell, Pan American Petroleum Corporation. Pan American is a firm believer in the principal of automatic custody transfer. Our experience with them, we found them reliable and efficient. They also prevent waste and certainly offer an opportunity to save substantial amount of money,

which is important to all of us. Pan American would like to see this Commission approve such units wherever practical and feasible.

MR. UTZ: Any other statements?

MR. KASTLER: Bill Kastler, Counsel for Gulf Oil Corporation. Gulf Oil Corporation has a working interest in this unit and is also a firm believer in automatic custody transfer methods, and we urge the approval of this case.

MR. UTZ: Any other statements? If there are no other statements, the case will be taken under advisement.

C E R T I F I C A T E

STATE OF NEW MEXICO)
 : ss
COUNTY OF BERNALILLO)

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico. do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 26th day of June
1958, in the City of Albuquerque, County of Bernalillo, State of
New Mexico.

Joseph G. Insill
Notary Public

My Commission Expires:

October 5, 1960.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Ex parte hearing of Case No. 1959
heard by me on May 28, 1958.

Smith, Examiner
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

June 23, 1958

Mr. R. L. Elliott
Graridge Corporation
P.O. Box 752
Breckenridge, Texas

Dear Mr. Elliott:

We enclose two copies of Order R-1204 issued June 18, 1958, by the Oil Conservation Commission in Case 1449, which was heard on May 28th at Santa Fe before an examiner.

Please note that this order requires that each meter installed in the subject system shall be tested for accuracy at intervals and in a manner satisfactory to the Commission. It will be necessary for you to run a series of tests of sufficient duration to determine that the meters are functioning properly immediately following installation. Thereafter tests should be made at intervals not to exceed one month and a report of said calibration filed with the Commission. The meters shall be calibrated against a master meter or against a test tank of measured volume.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

ALP/DSN:bp
Encls.

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O
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Y

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 1449
Order No. R-1204

APPLICATION OF GRARIDGE CORPORATION
FOR PERMISSION TO INSTALL CENTRAL
STORAGE FACILITIES AND AUTOMATIC
CUSTODY TRANSFER EQUIPMENT ON THE
NORTH CAPROCK-QUEEN UNIT NO. 1,
CAPROCK-QUEEN POOL, CHAVES AND LEA
COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 28, 1958, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 18th day of June, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Graridge Corporation, is the unit operator of the North Caprock-Queen Unit No. 1 in the Caprock-Queen Pool, Chaves and Lea Counties, New Mexico, which unit was established and defined by Order No. R-1145, dated April 3, 1958.
- (3) That the applicant proposes to install central storage facilities and automatic custody transfer equipment on the North Caprock-Queen Unit No. 1.
- (4) That the applicant proposes to produce all wells in the North Caprock-Queen Unit No. 1 into the common tank battery referred to above.
- (5) That the applicant proposes to measure the oil passing through the automatic custody transfer equipment by means of positive displacement meters.
- (6) That positive displacement meters provide an accurate and reliable means for measuring oil and that their use should be permitted.

(7) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil and that the use of such equipment should be permitted.

(8) That the applicant should be permitted to produce more than sixteen wells into the proposed central tank battery provided each well which is producing into said battery is periodically tested to determine the production from said well.

(9) That the positive displacement meters used in the above-described system should be periodically checked for accuracy.

(10) That the above-described system should be so equipped as to prevent the undue waste of oil in the event of malfunction or line break.

IT IS THEREFORE ORDERED:

1. That the applicant, Graridge Corporation, be and the same is hereby authorized to produce into a common tank battery, all wells in the North Caprock-Queen Unit No. 1, in the Caprock-Queen Pool, Chaves and Lea Counties, New Mexico, which unit was established and defined by Order No. R-1145, dated April 3, 1958.

2. That the applicant, be and the same is hereby authorized to install automatic custody transfer equipment utilizing positive displacement meters on the above-referenced North Caprock-Queen Unit No. 1.

PROVIDED HOWEVER, That the applicant shall make periodic production tests of all wells producing into the common tank battery to determine the individual production of said wells,

PROVIDED FURTHER, That the positive displacement meters used in the automatic custody transfer equipment referred to above shall be checked for accuracy at intervals and in a manner satisfactory to the Commission,

PROVIDED FURTHER, That the above-described system shall be so equipped as to prevent the undue waste of oil in the event of malfunction or line break.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

E. L. Mechem
EDWIN L. MECHEM, Chairman

Murray E. Morgan
MURRAY E. MORGAN, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary



OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-2-58

CASE 1449

Hearing Date 5-28-58

My recommendations for an order in the above numbered cases are as follows:

Approve as ~~requested~~ requested. Use Carson
order ^{R-1029} for a guide since there is also a
sanitized area. Use usual 309 exceptions
order for this order.



Staff Member

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 1275
Order No. R-1029

IN THE MATTER OF THE APPLICATION OF
SHELL OIL COMPANY FOR PERMISSION TO
INSTALL CENTRALIZED PRODUCTION TEST
FACILITIES AND AUTOMATIC CUSTODY
TRANSFER EQUIPMENT IN THE CARSON
UNIT AREA AND ON SEVEN SEPARATE LEASES
IN THE BISTI-LOWER GALLUP OIL POOL,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 17, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 7th day of August, 1957, the Commission, a quorum being present, having considered the application and the evidence adduced, and being fully advised in the premises,

FINDS:

(1) That due notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Shell Oil Company, is the unit operator of the Carson Unit Area. Further that the applicant is the operator of the following described oil and gas leases:

PHILLIPS NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 4:	Lots 1, 2 and S/2 NE/4
Section 9:	N/2
Section 10:	SW/4 and E/2
Section 15:	All
Section 22:	N/2 and SE/4
Section 27:	W/2

-2-

CASE NO. 1275
Order No. R-1029

MUDGE NO. 1 LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 26: W/2
Section 27: S/2
Section 34: All

MUDGE NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 4: SW/4
Section 9: W/2
Section 16: All

MUDGE NO. 4 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 21: All
Section 28: All
Section 33: All
Section 34: All

ANDERSON LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 9: SE/4
Section 15: NW/4

MOHR ASSIGNMENT LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 22: NW/4

MIMS LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 3: Lots 1, 2, 3 and 4, S/2 N/2, and SE/4

All in San Juan County, New Mexico.

(3) That the applicant proposes to install centralized production test facilities in the Carson Unit Area and on each of the above described leases whereby production from the individual wells will be tested periodically and the oil measured by means of positive displacement meters.

(4) That the applicant also proposes to install automatic custody transfer equipment in the Carson Unit Area and on each of the above described leases whereby

the oil production will be automatically tested for temperature, gravity, basic sediment and water, treated if necessary, and then measured by means of positive displacement meters as it passes into the pipeline.

(5) That the applicant seeks permission to produce more than eight wells into the above described central production test facilities and the automatic custody transfer stations.

(6) That the applicant proposes to commingle production from the participating area of the Carson Unit Area with production from wells outside the participating area of said unit, and to determine the individual well production by means of periodic production tests.

(7) That positive displacement meters provide an accurate and reliable means for measuring oil and that their use should be permitted.

(8) That previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil and that the use of such equipment should be permitted.

(9) That the production of more than eight wells into a central production test station and into an automatic custody transfer system should be permitted provided that each well in each of the several systems can be periodically tested, and provided that each of the positive displacement flow meters is periodically checked for accuracy.

(10) That each of the several systems should be so equipped as to prevent the undue waste of oil or gas in the event of malfunction or line break.

(11) That the applicant should not be permitted to commingle oil production from the participating area of the Carson Unit with oil production from outside the participating area, until the latter production has been measured in tanks or metered constantly by means of positive displacement meters.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, be and the same is hereby authorized to install central production test facilities and automatic custody transfer equipment on each of the following described leases and unit areas utilizing positive displacement meters for the measurement of oil from all wells in the Bisti-Lower Gallup Oil Pool and all extensions thereto, located on each of the said leases and unit areas:

PHILLIPS NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM
Section 4: Lots 1, 2 and S/2 NE/4

-4 -

CASE NO. 1275
Order No. R-1029

PHILLIPS NO. 2 LEASE (continued)

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 9: N/2
Section 10: SW/4 and E/2
Section 15: All
Section 22: N/2 and SE/4
Section 27: W/2

MUDGE NO. 1 LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 26: W/2
Section 27: S/2
Section 34: All

MUDGE NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 4: SW/4
Section 9: W/2
Section 16: All

MUDGE NO. 4 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 21: All
Section 28: All
Section 33: All
Section 34: All

ANDERSON LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 9: SE/4
Section 15: NW/4

MOHR ASSIGNMENT LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 22: NW/4

MIMS LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 3: Lots 1, 2, 3 and 4, S/2 N/2, and SE/4

-5-

CASE NO. 1275
Order No. R-1029

CARSON UNIT AREA

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

All of Sections 5 to 8, inclusive;
17 to 20, inclusive; and 29 to 32,
inclusive;

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

All Section 1; All Section 2;
All Sections 11 through 14, inclusive;
All Sections 23 through 26, inclusive;
All Section 35; All Section 36;

All in San Juan County, New Mexico.

PROVIDED, HOWEVER, That each well connected to each of the above-described systems shall be individually tested at least once a month.

PROVIDED, FURTHER, That each of the positive displacement flow meters shall be calibrated at intervals to be prescribed by the Commission and a report of said calibrations filed with the Commission.

PROVIDED, FURTHER, That each of the above-described systems shall be so equipped as to prevent the undue waste of oil or gas in the event of malfunction or line break.

PROVIDED FURTHER, that the production from any well in the Carson Unit Area which has not been admitted to the participating area within ninety days after the date of its completion shall have its oil measured in tanks or metered constantly by means of positive displacement meters prior to being commingled with oil production from the participating area of the Carson Unit Area. The Secretary-Director of the Commission shall have the authority to extend the foregoing ninety-day limitation in order to prevent undue hardship.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

A.L. PORTER, Jr., Member & Secretary

S E A L

ga

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO.

IN THE MATTER OF THE APPLICATION OF GRARIDGE CORPORATION FOR AN ORDER AUTHORIZING THE CONSOLIDATION OF MULTIPLE TANK BATTERIES AS AN EXCEPTION TO RULE 309 OF THE COMMISSION RULES AND REGULATIONS, ON THE LANDS AND LEASES INCLUDED IN THE NORTH CAPROCK QUEEN UNIT, EMBRACING 2887 ACRES, MORE OR LESS, IN TOWNSHIP 12 SOUTH, RANGE 31 EAST, TOWNSHIP 12 SOUTH, RANGE 32 EAST, AND TOWNSHIP 13 SOUTH, RANGE 32 EAST, N.M.P.M., CHAVES AND LEA COUNTIES, NEW MEXICO, AND FURTHER FOR AN ORDER AUTHORIZING THE INSTALLATION AND USE OF LEASE AUTOMATIC CUSTODY TRANSFER EQUIPMENT ON THE TANK BATTERIES SO CONSOLIDATED.

NO. _____

APPLICATION

Comes now applicant, Graridge Corporation, by its attorney, and states:

1. Applicant is the operator of properties situated within the Unit Area known as the North Caprock Queen Unit in Township 12 South, Range 31 East, Township 12 South, Range 32 East, and Township 13 South, Range 32 East, N.M.P.M., Chaves and Lea Counties, New Mexico, which Unit was duly approved by Commission Order No. R-1145, dated April 3, 1958, reference to said Commission Order being here made and further reference being made to the Unit Agreement itself for the purpose of determining the exact description of the leases involved therein.

2. That said water flood project being conducted under the terms and provisions of said Unit Agreement has caused an increase in the producing capacity of certain wells in the Unit Area to a point that additional tank batteries will have to be set to take care of the increased production, unless there is a consolidation of numerous tank batteries at some central point within the Unit Area; that such central location for the consolidated tank battery is proposed to be on the NE 1/4 of the NE 1/4 of Section 6, T 13 S, R 32 E, N.M.P.M., Lea County, New Mexico.

3. Upon consolidation of the tank battery as set out in paragraph 2, it has been determined by this applicant as well as the district gauger

of the pipe line company taking the production from said lease, that lease automatic custody transfer equipment should be installed thereon for a more efficient operation of said tank battery.

4. That additional expense will be incurred and loss of efficiency result unless tank batteries are consolidated and lease automatic custody transfer equipment installed.

WHEREFORE, applicant prays for the following relief:

1. That an order be issued creating an exception to Rule 309 of the Commission Rules and Regulations by permitting applicant to consolidate all tank batteries situated on leases in Lea County within the North Caprock Queen Unit Area into one central tank battery at a location of Unit Operator's choice, now proposed to be on NE 1/4 of NE 1/4, Section 6, 13-S, 32-E, N.M.P.M.

2. That an order be issued permitting the applicant to install lease automatic custody transfer equipment at such consolidated tank battery which may be set up under orders requested in Paragraph 1.

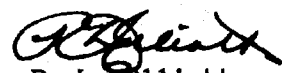
3. That the Commission set this matter down for regular hearing on the earliest possible date and that notice for such hearing be published as by law required and that after hearing, the Commission issue its regular order permitting the relief requested, in paragraphs 1 and 2 of this prayer.

DONE at Breckenridge, Texas, this the 26th day of April, 1958.

Respectfully submitted,

GRARIDGE CORPORATION

By



R. L. Elliott
Attorney for Applicant

DOCKET: EXAMINER HEARING MAY 28, 1958

Oil Conservation Commission 9 a.m. Mahry Hall, State Capitol, Santa Fe

The following cases will be heard before Elvis A. Utz, Examiner:

- CASE 1225: Application of Moab Drilling Company and Utex Exploration Company for an order amending Order No. R-975. Applicant, in the above-styled cause, seeks an order amending Order No. R-975 to permit the conversion to a water injection well of the Utex Exploration Company Donohue-Federal No. 3 Well, located in the SE/4 SW/4 of Section 15, Township 16 South, Range 29 East, Eddy County, New Mexico.
- CASE 1446: Application of The Texas Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Cotton Draw Unit embracing 35,144 acres, more or less, of Federal, State of New Mexico, and patented lands, located in Township 24 South, Ranges 31 and 32 East; Township 25 South, Ranges 31 and 32 East, in Eddy and Lea Counties, New Mexico.
- CASE 1447: Application of The Texas Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Eumont Gas Pool comprising the E/2 of Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's C. H. Weir "B" Well No. 3, located 330 feet from the North line and 660 feet from the East line of said Section 11.
- CASE 1448: Application of Ambassador Oil Corporation for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its North Caprock Queen Unit No. 2 embracing 1808 acres, more or less, of State of New Mexico lands located in Township 13 South, Ranges 31 and 32 East, in Chaves and Lea Counties, New Mexico.
- CASE 1449: Application of Graridge Corporation for an exception to Rule 309 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order permitting the consolidation of tank batteries to receive the production from more than sixteen wells in the North Caprock Queen Unit No. 1 in Chaves and Lea Counties, New Mexico, which was established by Order No. R-1145. The applicant further seeks permission to install automatic custody transfer equipment on the above-referenced Unit.
- CASE 1450: Application of Neville G. Penrose, Inc. for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its November State Unit comprising 913 acres, more or less, of State of New Mexico and patented lands, located in Township 10 South, Range 37 and 38 East, and Township 11 South, Range 38 East, Lea County, New Mexico.

- CASE 1451: Application of Amerada Petroleum Corporation for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 280-acre non-standard gas proration unit in the Justis Gas Pool consisting of the W/2 SW/4 Section 24, NW/4 and SW/4 NE/4 of Section 25, all in Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's proposed well to be drilled in the NE/4 NW/4 of said Section 25.
- CASE 1452: Application of Amerada Petroleum Corporation for the dual completion of a producing oil well to permit the disposal of salt water therein. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its H. C. Posey "A" No. 4 Well, located in the NW/4 NE/4 of Section 14, Township 12 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of oil through the tubing from the Pennsylvanian formation, adjacent to the East Caprock-Pennsylvanian Pool, and to permit the disposal of salt water through the casing tubing annulus into the Devonian formation between 11,205 feet and 11,370 feet.
- CASE 1453: Application of Magnolia Petroleum Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Stephens Estate No. 1 Well, located in the NW/4 SW/4 of Section 24, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Terry-Blinebry Pool and Wantz-Abo Pool.
- CASE 1454: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington No. 4 Well, located 660 feet from the South line and 1980 feet from the West line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinebry oil pool and oil from the Justis-Ellenburger Pool through parallel strings of tubing.
- CASE 1455: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington Well No. 5, located 1650 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinebry oil pool and oil from the Justis-Ellenburger pool through parallel strings of tubing.

- CASE 1456: Application of Gulf Oil Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Learcy McBuffington Well No. 6, located 330 feet from the South line and 1980 feet from the East line of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Blinebry oil pool and oil from the McKee formation, adjacent to the Justis-McKee Pool, through parallel strings of tubing.
- CASE 1457: Application of Sinclair Oil & Gas Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State Lea Well No. 1, located 660 feet from the South and West lines of Section 24, Township 16 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Kemnitz-Wolfcamp Pool and from the Pennsylvanian formation adjacent to the Kemnitz-Pennsylvanian Pool through parallel strings of tubing.
- CASE 1458: Application of Albert Gackle for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the S/2 of Section 23, Township 23 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Sinclair State No. 1 Well, located 1650 feet from the South line and 990 feet from the East line of said Section 23.
- CASE 1459: Application of Continental Oil Company for a dual completion and non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Farney A-17 Well No 3, located in Section 17, Township 23 South, Range 36 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Lower Yates formation of the Jalmat Gas Pool and gas from the Upper Yates formation of the Jalmat Gas Pool through the tubing and casing-tubing annulus respectively. The applicant further seeks the establishment of a 160-acre non-standard gas proration unit in the Jalmat Gas Pool comprising the NW/4 of said Section 17, to be dedicated to the said Farney A-17 Well No. 3.
- CASE 1460: Application of Phillips Petroleum Company for an oil-oil dual completion and for permission to commingle production from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its New Mex "A" Well No. 1 located 1983 feet from the South line and 2313 feet from the West line of Section 25, Township 16 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Kemnitz-Wolfcamp Pool and oil from an undesignated Pennsylvanian pool through parallel strings of tubing. The applicant also proposes to produce the Wolfcamp and Pennsylvanian production from said well into common storage.

CASE 1461: Application of A. A. Greer, et al., for an exception to the acreage factors established by Order No. R-565-C for certain wells in San Juan County, New Mexico. Applicant, in the above-styled cause, seek an order granting an exception to the acreage factors provided in the Special Rules and Regulations for the Aztec-Pictured Cliffs Gas Pool and Fulcher Kutz-Pictured Cliffs Gas Pool, as set forth in Order No. R-565-C, for one well in the Aztec-Pictured Cliffs Gas Pool and eight wells in the Fulcher Kutz-Pictured Cliffs Gas Pool which were drilled on 40-acre spacing prior to the establishment of 160-acre spacing in the aforementioned pools.

CASE 1462: Application of El Paso Natural Gas Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 335-acre, more or less, non-standard gas proration unit in the Blanco Mesaverde Gas Pool consisting of the SW/4 of Section 7 and the W/2 of Section 18, all in Township 30 North, Range 8 West, San Juan County, New Mexico, said unit to be dedicated to the applicant's Howell No. 4-C Well, located 933 feet from the South line and 931 feet from the West line of said Section 18.

CASE 1463: Application of Pan American Petroleum Corporation for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its C. H. Randel "A" No. 1 Well, located 1650 feet from the South line and 990 feet from the West line of Section 9, Township 26 North, Range 11 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup oil pool and gas from an undesignated Dakota gas pool through parallel strings of tubing.

ir/

GRARIDGE CORPORATION

Producers of Oil and Gas

BRECKENRIDGE, TEXAS

April 28, 1958

Mr. A. L. Porter
Oil Conservation Commission
State Capitol
Santa Fe, New Mexico

Re: North Caprock Queen Unit
Lea and Chaves Counties, New Mexico

Dear Mr. Porter:

Attached hereto you will find application in triplicate of Graridge Corporation for an order authorizing the consolidation of multiple tank batteries in the Lea County portion of the above referred to unit and also further authorizing the use and installation of lease automatic custody transfer equipment on such tank battery.

It would certainly be appreciated if you would bring this matter up for hearing at the earliest possible date inasmuch as we need to be in a position to consolidate the tank batteries to take care of the increased production from the various leases which have had substantial kick due to the water flood operations.

Thank you very much for your usual kind consideration to this matter.

Yours very truly,

GRARIDGE CORPORATION

By

R. L. Elliott, Attorney

RLE:ea
enc

cc-Graham Office

R 32 E

L E A





I

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 1999

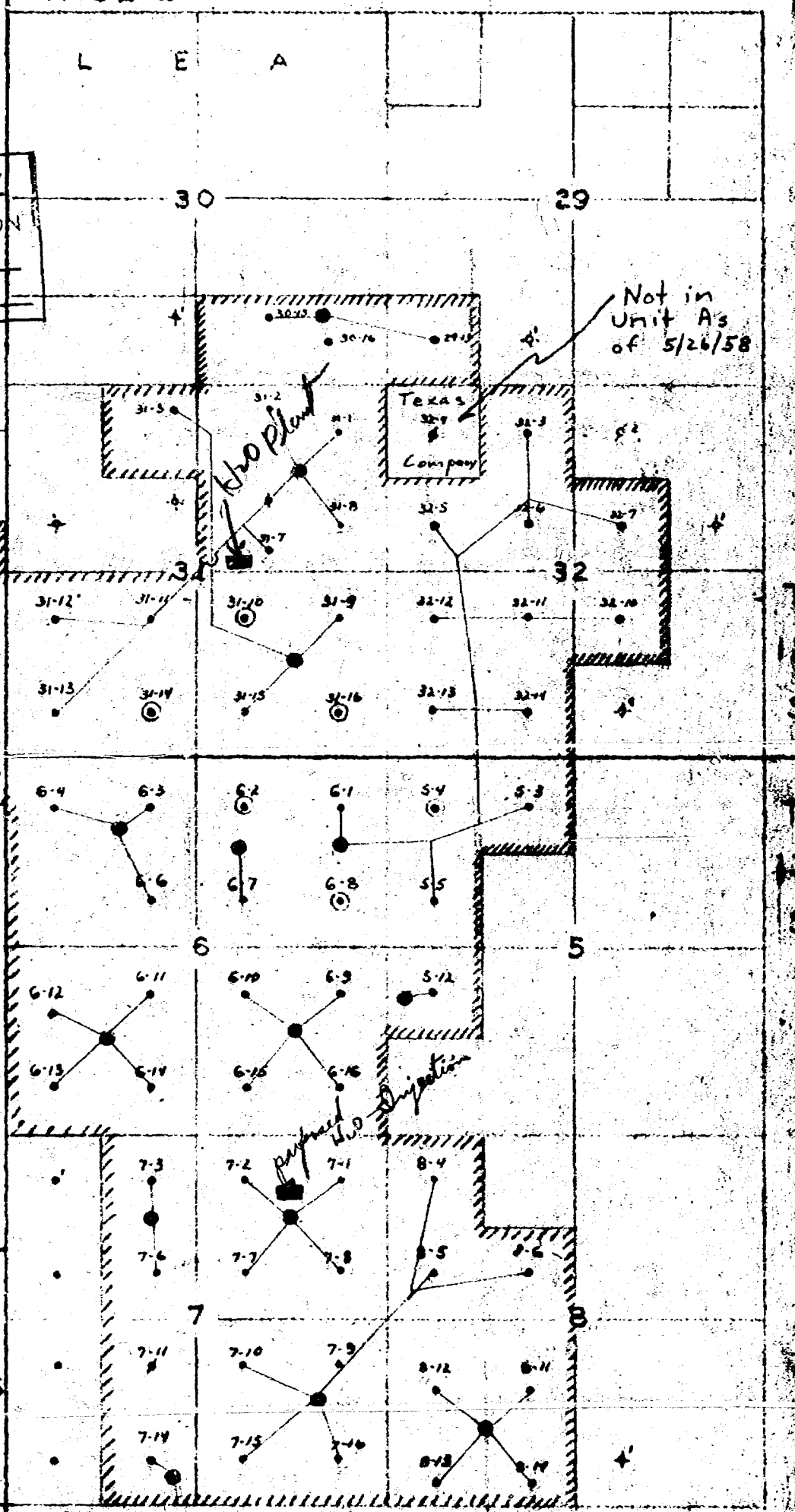
CHAYES

Not in Unit
as of 5/28/58

Flow Line and
Tank Battery
Arrangement As
Of 3/26/58

-  Tank batteries
 Water Inject. Plant
 Proposed Water
 Injection Plant
 Flow Lines

NORTH CAPROCK
QUEEN UNIT
CHAVES & LEA COUNTIES
NEW MEXICO
Scale 1" = 2,000'



R 32 E

L E A

II

OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 1999

CHAVEZ

Proposed Flow Line and Tank Battery Arrangement

Flow Line

Produced Water

Tank Battery

Free Water

Knackout

Water Inject. Plant

Water Inject Well

**NORTH CAPROCK
QUEEN UNIT**

REMAVER & LEA COUNTIES

NEW MEXICO

100-1-2000

56 wells

GRARIDGE CORPORATION

BOX 752

BRECKENRIDGE, TEXAS

May 8, 1958

Service Pipe Line Company
1628 19th Street
Lubbock, Texas

ATTENTION: Mr. C. E. Wilson

Dear Mr. Wilson:

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 1989

Attached is schematic proposal for LACT unit for use in the North Caprock Queen Unit of Lea and Chaves County, New Mexico. We believe this installation will conform to the specifications as discussed in your office on April 18. Features that are perhaps not clearly shown on the drawing are as follows:

1. Clean oil from treater will enter 600 barrel cone bottom settling tank through deck connection and enter tank through 4" perforated downcomer to center of cone bottom. Oil in this tank will be monitored continuously by an Instruments Incorporated Model 1728-CIE explosion proof monitor. Intake to monitor is 6' above edge of cone and discharge is 2' above edge of cone. Oil overflow from settling tank to 500 barrel surge tank will be from the 17' level on the settling tank to deck inlet and through 4" perforated downcomer to bottom tank. Installed in this line will be a 4" fail closed diaphragm valve activated by a control circuit in monitor and, or, by a high fluid level control in surge tank. Tied into the same circuit to be activated when monitor gives indication of bad oil existing in settling tank will be a 50 barrel an hour circulating pump drawing suction from center of cone bottom of settling tank. Bottom of settling tank will be pumped off periodically as needed by time clock operation of the 50 barrel an hour pump. Should oil fail to go to pipe line for any reason settling tank will fill to 19' level and bypass to 3 additional 500' barrel oil storage tanks.

Oil will go to your pipe line pump and sampler from regular pipe line connection on 500 barrel surge tank. Oil will then go to meter skid unit. It will go through 3" gas eliminator, 3" strainer, two 2" A.O. Smith Model S-12 meters, temperature compensated with ticket printer, complete with valve arrangement so that either one or both meters can be used or bypassed completely. Oil will then go through your back pressure valve and to the 10 barrel plastic

MAY 8, 1958

coated atmospheric meter prover. It is assumed that when the meter prover is used, the oil will gravity on out.

2. The meters will have a maximum capacity of 171 barrels per hour or 4104 barrels per day. We understand that these meters for best results should operate at a constant rate of about 140 to 150 barrels per hour so your pipe line pump will need to be sized accordingly. This should handle our expected maximum capacity of 2500 BPD in about 16 hours. If you foresee necessity for shutting your pump in for long periods each day, we might need to increase meter capacity, pipe line pump capacity, and surge tank capacity.

3. Should meters fail, you will note that system is arranged so that normal pipe line runs from all tanks can be made.

4. On skid mounted unit a 3" nipple 3' long with victaulic couplings will be put in line which can be removed for you to install your back pressure valve, or, if you prefer you can specify the type back pressure valve you want and we will have it installed at factory and billed to you.

5. Attached is quotation from National Tank Company which gives most of specifications.

Should you need additional information about any of the equipment or method of operation, please feel free to call on us or Mr. W. R. Willis with the National Tank Co., Box 1316, Wichita Falls, Texas.

The only articles that might delay installation are the meters which have a six-week delivery. Please advise us as soon as possible if the equipment meets your approval or of any necessary changes so that we may assemble all information for an Oil Conservation Commission hearing the latter part of this month.

Very truly yours,

GRARIDGE CORPORATION

T. A. Ford
Manager of Production

TAF:gl
Attach
cc: Service Pipe Line Co.
Box 671
Lovington, New Mexico
Attn: Mr. Dodson

P.S. Hearing is schedule for May 28, 1958

SERVICE PIPE LINE COMPANY

Lovington, New Mexico
May 17, 1958

Graridge Corporation
Box 752
Breckenridge, Texas

Attn: Mr. T. A. Ford

Dear Mr. Ford:

We have received your schematic proposal for the LACT unit to be used on the North Caprock Queen Unit, Lea County, New Mexico. We have given your proposal careful consideration and find that the arrangement of equipment and method of operation is satisfactory to Service Pipe Line Company. It is assumed that a draw-off will be provided on the 500 bbl. surge tank (primary pipe line tank) to allow disposal of any bottom build up that might occur.

We appreciate, and accept your offer to have a back pressure valve factory installed. We want to use a 3" cast steel, 300 lb. WP, Charles Wheatley Stream Flo check valve with external counter balance arm and weights to hold 10 psi back pressure (weights adjustable). The type connection can be either victaulic or ASA 150 RF flanges, which ever is consistent with your fabrication. Billing for this valve should be mailed to Service Pipe Line Company, Box 1088, Lovington, New Mexico.

We intend to install a Roper gear pump that will conform to the recommended meter through-put.

Sincerely yours,

J. G. Dotson
J. G. Dotson
Lovington District Superintendent

cc: C. E. Wilson

ROUTE TO:	DATE CHECKED
CLARK	
REAUGH	
FORD	X
ELLIOTT	
EVANOFF	
JACK	
WALKER	
FERREL	
ELR FOR FILE	X

BEFORE EXAMINER UTZ	
OIL CONSERVATION	SSION
EXHIBIT	5
CASE NO.	1999