BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

IN THE MATTER OF:

Case No. 1226

TRANSCRIPT OF HEARING

March 20, 1957

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTE FE
3-6691 2-2211

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 20, 1957

IN THE MATTER OF:

Application of Magnolia Petroleum Company for permission to move distillate off the lease before being measured, to produce more than eight wells into a single tank battery and for permission to commingle distillate from the Blanco Mesaverde Gas Pool and an undesignated Pictured Cliffs Gas Area in Rio Arriba County, New Mexico, in exception to Rules 303, 304, and 309 of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order to move and commingle the distillate produced from the Pictured Cliffs and Mesaverde formations from its Cheney-Federal lease covering SE/4, SE/4 NE/4 and E/2 SW/4 Section 4, E/2 and SW/4 Section 8, W/2 and W/2 E/2 Section 9, and All Sections 16 and 17, Township 26 North, Range 2 West, to a separate tank battery on its Jicarilla "H" Lease in the SE/4 of Section 2, Township 26 North, Range 3 West; applicant further desires to move the distillate produced from the Pictured Cliffs and Mesaverde formations from its Jicarilla "D" Lease covering all Sections 13, 14, 23, and 24, Township 26 North Range 3 West, to its Jicarilla "H" Lease, covering All Sections 1, 2, 11, and 12, Township 26 North, Range 3 West, and to commingle the production from the said leases in a common tank battery in the SE/4 of Section 2, Township 26 North, Range 3 West; Applicant further desires to move distillate produced from the Pictured Cliffs and Mesaverde formations from its Jicarilla "E" Lease, covering All Sections 11, 12, 13, 14, and the S/2 of Section 15, Township 27 North, Range 3 West, and its Jicarilla "F" Lease, covering All Sections 22, 23, 24, and 27, Township 27 North, Range 3 West, to its Jicarilla "G" Lease covering All Sections 25, 26, 35, and 36, Township 27 North, Range 3 West, and to commingle the production from the said three leases in a common tank battery in the SE/4 Section 26, Township 27 North, Range 3 West, all in the Blanco Mesaverde Gas Pool and an undesignated

Pictured Cliffs Gas Area, Rio Arriba County, New Mexico.	Case No. 1226

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The next case on the docket, is Case No. 1226.

MR. COOLEY: Case No. 1226. Application of Magnolia Petroleum Company for permission to move distillate off the lease before being measured, to produce more than eight wells into a single tank battery and for permission to commingle distillate from the Blanco Mesaverde Gas Pool and an undesignated Pictured Cliffs Gas Area in Rio Arriba County, New Mexico, in exception to Rules 303, 304 and 309 of the New Mexico Oil Conservation Commission Rules and Regulations.

MR. RICHARDSON: Mr. Examiner, I am William S. Richardson, Post Office Box 900, Dallas, Texas, representing Magnolia Petroleum Company, in Case No. 1226, which comes before the presiding Examiner on consolidation of three applications filed by Magnolia Petroleum Company requesting exception to the Commission's Rule 303 relating to the commingling of oil from separate pools prior to marketing; Rule 304, relating to the multiple completed wells, and Rule 309, relating to central tank batteries, as set forth in Magnolia's application and in the notice setting this matter for hearing.

Magnolia Petroleum Company requests permission to commingle the liquid hydrocarbons produced from the dullay completed gas wells, and to produce from separate leases into a common tank

battery, liquid hydrocarbons produced from Magnolia's Jicarilla "H" Lease and Jicarilla "D" Lease in Township 26 North, Range 3 West, Rio Arriba County, New Mexico.

Secondly, the applicant requests permission to commingle liquid hydrocarbons produced from dually completed gas wells, and to produce from separate leases into the common tank battery, liquid hydrocarbons produced from Magnolia's "H" "E" "F" and "G" Leases in Township 27 North, Range 3 West, Rio Arriba County, New Mexico.

Thirdly, to commingle liquid hydrocarbons from dually completed gas wells and to measure in tanks located off the lease, liquids produced from Magnolia's Cheney-Federal Lease in Township 26 North, Range 3 West, Rio Arriba County, New Mexico.

These three consolidated proceedings involve common questions of fact, and Magnolia Petroleum Company will demonstrate exceptions to Rules 303, 304, and 309, as proposed in its application in this cause necessary to prevent waste, prevent undue hardship, and the same to prevent correlative rights in the field.

Magnolia proposes to introduce three exhibits and present testimony from two witness, and I request at this time that Mr. R. D. Myers, Jr. and Lee E. Robertson, Jr. be sworn in.

MR. COOLEY: I will swear both witnesses in at the same time.

(Witness sworn.)

RICHARD D. MYERS, JR.

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

DIRECT EXAMINATION

BY: MR. RICHARDSON:

Q State your full name for the record, and your address.

A Richard D. Myers, Jr., Post Office Box 900, Dallas, Texas.

Q By whom are you employed and in what capacity?

A I am employed by the Magnolia Petroleum Company as Chief Reservoir Engineer in the Natural Gas Department.

Q Mr. Myers, I understand you have not previously testified before this Commission. Would you give us an outline of your professional qualifications, your educational background, and your practical experience in the oil and gas industry?

A I am a registered professional engineer in the State of Texas in the field of petroleum engineering. I graduated from the University of Oklahoma in 1939 with a Bachelor of Science degree in petroleum engineering.

MR. COOLEY: Would you speak up, please?

A I entered the employment of Magnolia Petroleum Company in June of 1939, and except for five years of service in the Army, have been with them since graduation from school.

My assignments have included approximately four years of extensive field experience in various phases of production, and in the processing of natural gas and allied products. This includes both plant and producing well experience.

In 1948 I went to the home office of the company and began the functions of a reservoir engineer for approximately four years.

For the past two and a half to three years I have been the supervisior of the reservoir engineering section of the Natural Gas Department of the Magnolia Petroleum Company.

Q My Myers, have you had occasion to testify before other administrative agencies, and if so, which ones?

A I have testified on a number of occasions before the Railroad Commission of Texas and the Department of Conservation of Louisiana representative to various reservoir analysis that I have performed, or assisted in the preparation of, and also various producing problems involving elements of commingling and equitablility allocation of liquid products such as concerned with in this application.

MR. RICHARDSON: Mr. Examiner, I request that the witness and his professional qualifications be admitted.

MR. NUTTER: The witness' qualifications are acceptable.

Q (By Mr. Richardson): Mr. Myers, are you familiar with the subject matter of Case 1226? A I am.

Q In connection with Case 1226, did you have occasion to mail out copies of Magnolia Petroleum Company's applications filed with the New Mexico Oil Conservation Commission, and if so, to whom were these copies mailed?

A Yes, sir, I mailed copies of the overall -- three applications to Mr. Frank Vigil, the Chairman of the Jicarilla Apache Tribal Council in Dulce, New Mexico. I also mailed copies of the three applications to the Field Supervisior of the USGS in Farmington, New Mexico, and accompanied both of these notices with a brief

explanation of what we propose to do and why, and these communications were mailed on the 5th day of March, 1957.

MR. RICHARDSON: Mr. Examiner, I request at this time that these be marked for identification, Magnolia Petroleum Company's Exhibit No. 1 and and Exhibit No. 2. Exhibit No. 1 being a schematic diagram of liquid gathering system from existing wells to proposed batteries in Magnolia Petroleum Company's Jicarilla Lands "D", "E", "F", "G", and "H" leases and Magnolia Petroleum Company's Chenney-Federal Lease, Rio Arriba County, New Mexico.

Exhibit No. 2 for identification being a schematic diagram of liquid gas measurements at wells in Magnolia Petroleum Company's Jicarilla Lands, "D" "E" "F" "G" and "H" Leases in Magnolia Petroleum Company's Chenney-Federal Lease, Rio Arriba County, New Mexico.

Have Magnolia Petroleum Company's exhibits been marked for identification?

MR. NUTTER: Yes, sir, they have.

Q (BY Mr. Richardson): Mr. Myers, you have before you Magnolia's Exhibit No. 1, which purports to be a schematic diagram of liquid gatering system from existing wells to proposed batteries, and also a copy of Magnolia's Exhibit No. 2 for identification, which purports to be a Schematic diagram of liquid and gas measurements at wells on Magnolia Petroleum Company's Jicarilla Lands "D" "E" "F" "G" and "H" Leases and Magnolia Petroleum Company's Chenney-Federal Lease, in Rio Arriba County, New Mexico?

A I do.

Q By whom were these Exhibits Nos. 1 and 2 prepared?

A They were prepared at my direction and under my supervision.

Q Referring now to Exhibit No. 1 for identificiation, would you explain briefly the general objectives which Magnolia seeks to accomplish by seeking exception to the Commission's Rule by the three applications involved in this case, Case 1226?

A Well, just in general, and by way of introduction, I would like to say that we believe that the use of central batteries in this case will operate to the mutual advantage of the royalty owner, the gas purchaser, and the Magnolia Petroleum Company as operator of these six leases.

In general, our plan is to construct three liquid gathering systems on the six leases that are being considered here today. Each liquid gathering system will discharge into a central battery, which the locations are indicated on Exhibit 1, but I will spell them out just a little bit later.

Now, this area, I think, part of it, is not yet included in the Blanco Mesaverde Field, and of course, the Pictured Cliffs production has not been classified as yet, but we do believe that essentially all of it will become a part of the Blanco Mesaverde.

We propose to install gas-oil ratio testing facilities at each completion, and by completion I mean dual completion, that's two completions. In other words, we have a dual completion.

We will have two separators there to produce the well, but

we will install this equipment so that adequate and accurate gas-oil ratios may be taken periodically and it will be upon these periodic gas-oil ration tests, coupled with the continuous measurements of gas from each of the completions, that we will locate the liquid production back to the individual wells.

I should like to delineate our "D" and "H" Leases, which will be served by one liquid gathering system, and also discharged into common tankage. The "D" Lease consists of 2560 acres. It's composed of Section 13, 14, 23, and 24, Township 26 North, Range 3 West in Rio Arriba County, New Mexico. I have outlined this lease in green on Exhibit 1. The "H" Lease is just to the north of the "D" Lease, and it is outlined in red, on Exhibit 1. It too, consists of 2560 acres. It consists of Sections 1, 2, 11, and 12, Township 26 North, Range 3 West, in Rio Arriba County.

The royalty ownership of the Jicarilla "D" and the Jicarilla "H" Leases are vested in the Jicarilla Apache Tribal Council.

With regard to all formations, the lease instruments were signed by Mr. Frank Vigil in his capacity as Chairman of the Jicarilla Apache Tribal Council, and was approved by the Chief Branch of Lands of Indian Affairs on the 2nd of April, 1952.

At the present time we have two dual completions on each lease. These wells were drilled during 1956, and are presently awaiting connection to Pacific Northwest Pipe Line Corporation.

All of the leases in this area that we have, are under contract to Pacific Northwest, and dedicated to their delivery.

The completion tests of the wells are as follows:

The "D' 1 Well, located in the Southwest Quarter of Section 24, as indicated on Exhibit 1, was completed as a dual with a Pictured Cliffs potential of five million nine hundred and ten thousand a day.

The Mesaverde completion had a potential of one million two hundred and thirteen thousand cubic feet per day.

The "D" 2 Well is located in the Northwest Quarter of Section 14, and is shown on Exhibit 1. It is a dual completion. The Pictured Cliffs had a potential of ten million five hundred and eighty-five thousand cubic feet per day. The Mesaverde had a potential of nine million and nineteen thousand cubic feet per day.

The "H" 1 Well is located in the Northwest Quarter of Section 11 as shown on Exhibit 1. It too is a dual completion with nine million three hundred and forty thousand MCF's per day potential from the Pictured Cliffs, and five million seven hundred and thirty thousand MCF's per day from the Mesaverde.

The "H" 2 Well is located in the Northeast Quarter of Section 2. It is also shown on Exhibit 1. The Pictured Cliffs potential was two million eight thousand MCF's per day. I am sorry, two million and zero eight thousand cubic feet per day. The Mesaverde potential was four million eight hundred and fifteen thousand cubic feet per day.

We contemplate additional drilling on both the "D" and the "H" Leases.

Now, the south half of Exhibit 1 is reflective of what we propose to install in the way of a liquid gathering system for these two Jicarilla Apache Leases, the "D" and the "H".

The main trunk of this liquid gathering system will extend some four miles in a north-south direction. The present laterals that we have extend only a quarter of a mile east and west, but further development will put them out about three quarters of a mile in both directions.

This liquid gathering system will deliver liquid from the individual wells to a central tank battery that will serve the "D" and "H" Leases, and this battery will be located in the Southeast Quarter of Section 2, Township 26 North, Range 3 West, on what we have designated as our Jicarilla "H" Lease. This site was selected as a location for our battery because of an existing road that we had constructed during our 1955 and 1956 drilling program in the area. The road extends some six miles from Section 2 West, to the Dulce Road, and it was started in 1955 for the development of our other leases in the area, and then extended in 1956.

The tanks will be located on the north side of the Tapicito Canyon. Two tank symbols are indicated in this Southeast Quarter, which indicates two distinct and separate batteries.

We estimate our liquid production rate to be discharged into the central battery from the existing wells at no more than two hundred and five barrels of liquid a day. Now, these are purely estimates and we are a little bit surprised with them. The "D" 1

Well --

Q Is this on sustained production?

A Yes, sir, it is under condition of sustained productions after the wells have stablized.

The "D" 1 Well Pictured Cliffs completion, we estimate that it will produce twenty-eight barrels of what might possibly be called oil, when producing at a rate of six hundred thousand cubic feet per day.

The Mesaverde completion will produce an estimated sixteen barrels at a rate of four hundred thousand cubic feet per day.

The "D" 2 Well we estimate no liquid production from the Pictured Cliffs completion. We estimate forty-seven barrels of oil from the Mesaverde completion, when producing at a rate of eleven hundred thousand cubic feet per day.

The "H" 1 Well, the Pictured Cliffs completion, will produce approximately three barrels of butane at around a million a day rate. The Mesaverde completion will produce around eighty-nine barrels of oil at a nineteen hundred MCF rate. The "H" 2 Well, the Pictured Cliffs completion, will produce no liquid. However, the Mesaverde completion will produce approximately twenty-five barrels of oil at a -- on six hundred and fifty thousand cubic feet per day.

Actually, we have tests on our "H" 1 Well. This well was produced for drilling gas while we were drilling our "D" 2, and our Chenney-Federal wells produce from both completions at different

time. However, the Pictured Cliffs completion gave us considerable transmission difficulties due to a concentration of butane in the line. We switched it to the Mesaverde and after several days of production, the well began to make oil at a decreasing gas-oil ratio. When we -- by the time we got a tank out there and run a gauge on it, we were nearly through with the gas, but we had established a rate of around forty-six barrels of oil per million cubic feet of gas.

Now, that has been described to us an oily distillate. It does have an API gravity of 47 degrees, but that was -- that wasn't a long test and we don't think that it was really an adequate test, but it is the most test we have on any well in the area. Just east of our Jicarilla "H" and "D" Leases is our Chenney-Federal Lease. Our Chenney-Federal Lease, that's outlined in violet on Exhibit No. 1, consists of eleven hundred and twenty acres, composed of the North-east Quarter and the South Half of Section 8, and all of Section 17 in Township 26 North, Range 2 West in Rio Arriba County. This is a lease which we received by assignment from the estate of Mr. William H. Chenney in 1955. This assignment was approved by the Bureau of Land Management on the 21st of August, 1956.

At the present time, we have one well on the lease. It is located on the Southwest Quarter of Section 8, as we've indicated there on Exhibit No. 1. There was not a very successful attempt at a dual completion in the Pictured Cliffs and Mesaverde Formations.

At the present time, the Pictured Cliffs is not productive of

gas, and we are studying it for remedial work to shut off the water and try to make a producing well on it. However, that will probably await the completion of another producing well on the lease itself. The Mesaverde completion potentialed ten million and ninety thousand cubic feet per day on the completion test. We contemplate additional drilling on this lease.

You will note that the pipe line on this lease extends from Well No. 1 in the Southwest Quarter of 8 over to the Southeast Quarter of Section 2, and will share a common battery site with the battery serving the Jicarilla "H" and "D" Leases. This is common only in that they share the same site. The battery will be distinct and separate and in nowise connected.

Now, these two miles of trunk pipe line--of course, we will have a little gathering lines radiating out to each completion, but these two miles of trunk pipe line will save us approximately ten miles of roadage that we have to -- I mean, just the way we have to get there. We have to go down south to little towns and back up. There is an ingneous dike through Section 18, which pretty effectively blocks us. However, there will be some tests on that.

We estimate that this well will produce approximately twenty-five barrels of distillate at eleven hundred cubic feet per day. The "E" "F" and "G" Leases are served by the third liquid gathering system, and to delineate these leases, the "E" Lease is located, or is outlined in black, and is located in the northern portion of our acreage. It consists of two hundred, -- two thousand three

hundred and thirty-six point eight acres. It includes fractional, Sections 11 and 12, all of Sections 13, 14, and the South Half of Section 15, all being in Township 27 North, Range 3 West.

The "F" Lease is outlined in brown on Exhibit 1. It consists of twenty-five hundred and sixty acres, made up of Sections 22, 23, 24, and 27, all being in Township 27 North, Range 3 West.

The "G" Lease is outlined in blue on Exhibit 1, and it consists of twenty-five hundred and sixty acres, and consists of Sections 25, 26, 35, and 36, all being in Township 27 North, Range 3 West. Royalty in the Jicarilla "F" and "G" Leases is held by the Jicarilla Tribe of Indians. The lease instruments were signed by Mr. Frank Vigil in his capacity as chairman of the tribal council, and were approved on the 2nd of April 1952, by the Chief Branch of Lands of Indian Affairs.

We have two wells on each lease, on each of these three leases. Some of them are duals and some of them are not. I will just have to take them one by one and explain at that time, and all these wells are also awaiting connection to Pacific Northwest Pipe Line.

The "E" 1 Well, located in the Southwest Quarter of Section 12, as shown on Exhibit No. 1, was completed as a Mesaverde single with a potential of four hundred and twenty-six thousand cubic feet per day.

The "E" 2 Well, located in the Southwest Quarter of Section 14, shown on Exhibit 1, was also completed as a Mesaverde single with a potential of six million eight hundred thousand cubic feet per day.

The "F" 1 Well is located in the Northeast Quarter of Section 22, located on Exhibit No. 1. It is a dual completion. The Pictured Cliffs potentialed eight hundred and twelve thousand cubic feet per day. The Mesaverde potentialed five million eight hundred and eighty thousand cubic feet per day.

The "F" 2 Well, located in the Southwest Quarter of Section 27, shown on Exhibit 1, it was completed as a Mesaverde single with a potential of five million five hundred and ninety thousand cubic feet per day.

The "G" 1 Well, located in the Northeast Quarter of Section 35, shown on Exhibit 1, is a dual completion. The Pictured Cliffs potentialed four and a half million cubic feet per day. The Mesaverde potentialed five million four hundred and fifty thousand cubic feet per day.

The "G" 2 Well, is located in the Northwest Quarter of Section 25. It is a dual completion. We didn't have much luck on the Pictured Cliffs completion, and it is being studied for remedial work at this time. However, the Mesaverde horizon potentialed three million eight thousand eighty-five thousand cubic feet per day. We contemplate additional drilling on each of these leases.

Now, the liquid gathering system for the "E" "F" and "G" is shown on the North Half of Exhibit No. 1. The trunk lines will extend, or rather, the trunk line will extend from wells that are drilled in Section 12 and are pending; in Section 11, to the most southerly well drilled in 35 and 36. Eventually, there will be a

distance of something like four and a half miles. The lateral lines from the trunk line will extend approximately one and three quarter miles to the west; as much as three quarters of a mile to the east. As additional drilling is carried out, the liquid gathering system will produce into a central tank battery to be located in the Southeast of Section 26, Township 27 North, Range 3 West, in Rio Arriba County. It will serve only the Jicarilla "E" "F" and "G" Leases. This battery site was selected to take advantage of a governmental road that is being constructed in the immediate vicinity.

We estimate our liquid production rate into this battery at eight barrels a day from the currently completed well. We estimate no liquid to be produced from the "E" 1 Well. From the "E" 2 Well, the Mesaverde single, we estimate forty-six barrels of oily distillate at a gas rate of eleven hundred cubic feet per day--eleven hundred thousand.

The "F" 1 Well will produce no liquid from the Pictured Cliffs, and approximately five barrels of oil from the Mesaverde completion at a rate of around two million cubic feet per day.

The "G" 1 Well will produce no liquid from the Pictured Cliffs completion and five barrels of butane from the Mesaverde completion at a gas rate of one million eight hundred thousand cubic feet per day.

We anticipate no liquid production from our "G" 2 Well, which is a Mesaverde completion.

I would like to refer now to Exhibit No. 2, which is a

schematic diagram of producing and testing equipment that will be installed purely as a matter of course at each well under this plan of operation. Now, each completion will be produced as a separate and distinct well until after the liquid is removed from the separator and the gas overhead is pressured from each zone. To do that, we will have an individual separator.

Now, actually, this is a wellhead dehydrator, but it is shown on this diagram as a separator because it embodied the same features and does the same things, plus the deydration step. That is, a separator does, but gas will be measured after passing through the separator section and the dehydration section of this vessel, and is indicated by the meter on the gas or the separator overhead.

Under normal operations, liquids will be removed from the separator at the bottom and will be produced into a commingling header.

Now, this is the outboard line on this -- outboard liquid line on this diagram (indicating). It will be commingled in this liquid header and then enter the liquid gathering system line, which Magnolia will own and operate for transmission to central storage.

Now, we do have a testing manifold on this separator, or hook-up. It will be connected to each separator so that in the event -- at the time we want to run a gas-oil ratio test, we can simply switch it into the test tank indicated on the bottom of the diagram without interrupting its flow, or the flow of the other wells. This piping manifold will be up stream of the commingling header and

will allow the diversion of liquid from either completion to a testing tank such as shown on Exhibit 2. Liquid production test rates will be determined from a physical gauge of this test tank. The gas liquid ratio may be obtained or will be obtained from the amount of gas passing the sales meter on the separator overhead, compared to the amount of oil produced during the test.

Now, the liquid produced from these individual wells and transmitted and stored at the single tank batteries, is, as indicated on Exhibit No. 1, from the installations on Exhibit 2 will be apportioned back to the individual completions in the same proportion that the completions indicated production; or the basis of these gas-oil ratio tests bear to the total indicated production of all wells connected to the central battery and the liquid gathering system serving the battery.

Q Mr. Myers, in your opinion, is such a gas-oil ration test a reasonable and accurate method for the allocating of production, both, back to the individual completion, and if so, is your knowledge of such a method one which has been frequently used in the industry on other occasions?

A Yes, it is a fair and reasonable method of allocating production back to individual wells where we don't have questions of equity involved. Now, we use it quite extensively in our own operations in Kansas, Oklahoma, Texas, and Louisiana, and we have one installation which we are quite proud of, and that is in the Block 126 Field, which is in the off-shore area of Louisiana. Now,

here we have eighty wells producing into a central separator or station. Each one has an individual battery and the liquid, or the gas and liquid are separated, the oil is commingled, and the gas is unfortunately flared by the liquid, or commingled into a pipe line at some fifty miles from shore. Now, the total oil that we get out of this line rarely checks less than two per cent of -- I mean, it is rarely more than two per cent in error compared to the individual estimates, or the estimate of the productions from the individual wells. If it more than two per cent, why we feel like there is something wrong, and get after it and run some more tests and find out which well is the offender.

Q This is in spite of line surges?

A Yes, sir. Actually, the time involved there is approximately one day. We began to notice the trouble at the end of the second day, but it takes about one day for a pressure increase out in the gulf to be noticed at the shore terminal.

This is in the disputed area in the tideland area, and the plan has been approved and accepted by the Commissioner of the Department of Conservation of Louisiana, Louisiana State Minerals Board, and also the United States Geological Survey, but actually, the installation that we propose here is a little bit more rigorous than the installation we have out in the gulf because we are running a continuous record of all the gas produced and have that none for all the time. All we have is just the production log on each well. It produced twelve hours one day and fifteen hours the next, something

like that.

Q Now, in the present case that is involved in these applications here, would you describe for us how you propose to test the accuracy of this gas-oil ratio method?

A We can run constant checks on the validity of the test data we have, by simply taking our tests and comparing them with the central, or the gauges at our central storage tank, and we can pick up the date that any anomaly occurred, and get on it right away. Now, I don't know, I imagine those tanks will be gauged every day, and that way we will know just about what the system should produce for the next twenty-four hours, and if we get a little bit more or a little less liquid, we will know something is wrong, and we will begin to look for some trouble or some troubling well.

Q How frequently do you propose to run these tests?

A I would propose, after the well is established a period, biannual tests. Now, during the first few months of operation here, as I said, we don't have a whole lot of information on this area, and we are going to run, well, at least one test a month; but after the producing characteristics of the well stablize, the gas-oil ratio, the nature of liquid, if they prove out as we suspect that they will, I would think that once each six months would be adequate; but, particularly, in view of the fact that we have this constant check on the validity of our tests.

Q How does Magnolia propose to dispose of the liquids which are gathered into these three central batteries?

A At the present time, we are negotiating a contract with the El Paso Natural Gas Products Company for the sale of these liquids, and we'll have to truck it from the battery locations to El Paso's Lynbrook Station, a distance of some fifty-five miles is involved, thirty of which are over dirt roads, which gets pretty bad in the winter time. Now, in that connection, I'd say that we anticipate considerable difficulty during the winter months at getting those liquids moved out of there. There are two contributing factors here. One, of course, is the peak demand for the gas will occur during the winter; the other reason is that the roads are going to be at their worse during the winter, and everybody is going to want a truck, and it takes longer for each trip, and we are just going to be struggling for trucks, and unless we get something like central batteries, we are fearful that we are just simply going to have to shut in wells on account of tank rules. That will make it hard on our gas purchaser, and our royalty owners will not be enjoying the full benefit of the winter demand. Also, in that connection, I have had no experience with this country up here. I mean, as to how we are going to get along producing, and allowable wise, but usually, when we have to defer an allowable during the winter months, why we found out we are unable to make it up during the summer months because the purchaser, everyone in the country is yelling at him, and it's simply lost allowables, but I see no substantial disadvantage to this plan, other than a superfical conflict with the three rules that we mentioned here, 303 304, and

309, and we should like to make it very clear that we don't propose any underground commingling of the reservoirs. They will be separate until they get to the separator. After they are separated, we would like to commingle the liquid, and of course, the gas, but we feel that it will tend to reduce surface waste, primarily, by some savings in the butane that we have indications that we are going to produce.

We will be able to build our vapor pressure and kind of pack our oil a little bit and build it up to the maximum that the liquid pipe line company will take it, and of course, the reduction in the number of tanks will cause less investment and facilitate our operations up there, which will be pretty much plowed back into the area in the form of an accelerated drilling program, but we believe it is advantageous to the royalty owner and to the purchaser, and of course, to ourselves, to be able to take care of the full winter peak demand for gas, and as a practical operating feature, it would be much easier to maintain a rateable take against each well's allowable with the centralized batteries than it would be with scattered batteries.

There is quite often the case, you find, that your best well is the most remote from a road; had the best allowable, but that is the well you will have to shut in because of lack of tank room, and we take the idea or the attitude that when the tanks are full, why that's all she wrote. The well has got to be shut in. We don't like to pour the liquid on the ground, but the central batteries

that we have set out on Exhibit 1 are more easily accessible to existing roads. Now, we think that this primarily will help us, but indirectly, by shortening the time that we need trucks. We are going to help a few outside operators too. The shutin periods will be reduced during the winter and since there is no questions of equity involved, we will be able to take care of our gas purchaser in a smoother fashion. We can do nothing except just recommend it to the Commmission for adoption.

Q Are there any questions here of commingling tankage as to divergent royalty interest?

A No, sir, we do have some of our tanks on -- Well, only in two cases do we have our tankage on a lease where the State Rules says it ought to be, but the royalty interest in the Jicarilla land is all vested in the Jicarilla Apache Tribe, and the Chenney-Federal Royalty. There is actually a small override on that, but of course, the basic one-eighth royalty to the Federal Government, and all we are doing there is moving the liquid from a place where we can measure it and move it out a little bit easier, but there will be no commingling of liquid from divergent royalty interests prior to marketing.

Q Answer if you know whether Magnolia Petroleum Company proposes to drill additional wells on its Chenney-Federal Lease which is outline in purple on Exhibit 1?

A Yes, sir, we contemplate additional drilling on Chenney-Federal, and it will probably extend over a period of several years

and is just a part of our orderly development program in the area.

Q Do you also contemplate that Magnolia will drill additional wells upon the Jicarilla Apache "D" "E" "F" "G" and "H" Leases?

A Yes, sir, we will drill those wells as a part of a program that is actually already in operation.

Q Based upon the previous experience in the area in drilling wells, which now exists, in your opinion, can you reasonably expect that the additional wells to be drilled will encounter both the Pictured Cliffs and the Mesaverde Formations?

A Yes, sir, we do. There is a little question up at the north end in that "E" Lease, but overall, I'd say we have reasonably good prospect for dual completions under all the leases in this case.

Q In your opinion, is the plan proposed by Magnolia Petroleum Company in these three applications, in Case 1226, desireable to prevent waste, prevent undue hardship and protect correlative rights in the area?

A Yes, sir, it is. A moment ago I made a remark that we just couldn't see anything wrong with it other than the fact that it did conflict slightly with the literal interpretation of Statewide Rules, but we believe that the method that was suggested here, the hook-up as shown on Exhibit No. 2 will allow us to comply with the spirit of each of these Rules.

MR. RICHARDSON: That completes our direct examination of this witness.

MR. NUTTER: If there is no further direct examination, we will recess the hearing until one-thirty.

(Recess)

MR. NUTTER: The hearing will come to order please. Do you have any further questions of your witness?

MR. RICHARDSON: Yes, Mr. Examiner.

DIRECT EXAMINATION (Continued)

BY: MR. RICHARDSON:

Q Mr. Myers, since the noon recess, an additional question has occurred to me. I noticed from a consideration of the application filed with the Commission with respect to Magnolia Petroleum Company's Chenney-Federal Lease, that you have described such lease in the application as covering Section 4, the Southeast Quarter and Southeast Quarter of the Northeast Quarter, and the East Half of of the Southwest Quarter, and in Section 8 you have described the lease as covering the East Half and the Southwest Quarter; and in Section 9, you described the lease as coverning the West Half and the West Half of the East Half, and all of Section 16 and all of Section 17.

Now, if I understood your testimony this morning, you stated that the present application, in your testimony relating thereto, insofar as it effected their Chenney-Federal lease, only covered the East Half and the Southwest Quarter of Section 8 and all of Section 17 of Township 26 North, Range 2 West, New Mexico Prime Meridan, Rio Arriba County. Would you explain that difference between

the application and your previous testimony this morning?

A Apparently when the application was drawn, it was drawn from the original Chenney Lease from the Federal Government, which did include portions of Sections 4, 8, 16, and 17. However, the assignment which we received from the estate of Mr. Chenney covered the East Half and the Southwest Quarter of Section 8 and all of Section 17, both being in Township 26 North, Range 2 West, but apparently we looked at the wrong--we looked at the original instrument rather than the assignment when we prepared the application.

Q So in effect, your testimony here and your Exhibits and your application only applies to the East Half of the Southwest Quarter of Section 8 and Section 17 of Township 26 North, Range 2 West, Rio Arriba County, New Mexico?

A Yes, sir.

Q This is insofar as the Chenney-Federal Lease is concerned?

A That is the East Half plus the Southwest Quarter of Section 8.

Q The East Half and the Southwest Quarter of 8?

A Yes, sir.

MR. RICHARDSON: Those are all the questions we have of this witness at this time.

MR. NUTTER: One thing about that very thing --

MR. COOLEY: Would you like to amend your application to correspond --

MR. RICHARDSON: May I do so on the record at this time?

MR. COOLEY: Please do so.

MR. RICHARDSON: Magnolia Petroleum Company moves the Examiner for permission to amend the first application filed in Case No. 1226 affecting Magnolia Petroleum Company's Chenney-Federal Lease. The caption and the first paragraph appearing on Page 1 be amended to read, "East Half and the Southwest Quarter of Section 8 and Section 17, all in Township 26 North, Range 2 West, NMPM, Rio Arriba County, New Mexico."

MR. NUTTER: Without objection, the amendment of Magnolia Petroleum Company as noted, will be made.

MR. RICHARDSON: Are there any further questions of this witness? I have no further questions of this witness myself.

MR. NUTTER: Are there any further questions of the witness?

MR. KENDRICK: I have some questions.

MR. NUTTER: Mr. Kendrick.

CROSS EXAMINATION

BY: Mr. Kendrick:

Q Do you know, at this time, what the length of the test for the gas-oil ratio will be run, for the individual test on each well as you progress through these tests? I mean, for each individual well?

A No, sir, we hadn't given that too much thought at this time. I mean, normally we figure on a twelve to twenty-four hour test.

Q Are all the overriding interests on the Chenney-Federal Lease--One overriding, to be effected by the entire lease?

A That's correct.

MR. RICHARDSON: In both formations.

A So far as I was able to tell from just reading the assignment it was from top to bottom sites.

Q Is it not true that the establishment of these tank batteries is in the location as so indicated on here, is to facilitate using the present road facilities in the area?

A Yes, sir, that's correct.

Q That would eliminate costly road and bridge construction across these other arroyos in the area?

A Yes, sir. Now, of course, we will have a road system of sorts through there but it would be -- I mean, it wouldn't be designed to stand the heavy traffic of these transport-tank trucks.

Q Heavy traffic in all weather?

A That's correct.

MR. KENDRICK: That's all.

MR. NUTTER: Does anyone else have a question of the witness.

MR. UTZ: I have one.

BY: MR. UTZ:

Q The portions that you are, referring to Exhibit No. 1, the portions of Sections 7, 18, and 19, which you show colored in, is not involved in this application in any way, is it?

A No, sir, it is not involved in this case. Now, I should

just add that chances are it will come up at a later date, but we have no producing well on this property yet.

Q It is a separate lease from the Chenney or the Jicarilla deed?

A Yes, sir.

Q Can you answer a question as to the size of the tank batteries, or would Mr. Robertson be in a position to answer that?

A I don't know that either one of us is in too good a position. Actually, we plan to set individual tanks at each well for a sort of preliminary testing period so we will be able to adequately size our tank batteries and our flow lines into the central locations. Now, again, I should like to emphasis that my test, as to the amount of liquid that we would expect to receive, is based on very fragmentary information and only one real test.

Q Do you have any idea as to how many days' storage you plan to have?

A Yes, sir, we plan to have approximately ten days' storage.

MR. UTZ: That's all I have.

BY: MR. NUTTER:

Q Mr. Myers, do you anticipate that there will be any difficulties encountered insofar as commingling of the gas or the fluid as a result of variation in pressure between the two completions in a dual completion or between leases?

A At this time we don't think that there will be any complications due to that. Now, the gathering, or the system of El Paso's, is operating there in the neighborhood of five hundred pounds, and

we have sufficient pressure on the Pictured Cliffs. I think it is around eleven hundred, and around seventeen hundred on the Mesaverde, so we don't anticipate any difficulty.

Q So there will be no difficulty in flowing into the line resulting from the commingling as requested in this application?

A From the evidence we have, or from the data we have today, there will not be any.

Q Mr. Myers, you mentioned in your testimony this morning that you felt that this system of determining liquid production by GORs and constant metering of the gas was sufficiently accurate to be reliable when no -- when there aren't any dangers of any inequities occurring. As an expert witness, do you feel, if there is a variation in royalty ownership or working interest ownership, that this system is reliable enough to depend on in that case?

A My frank personal opinion is that it is sufficiently accurate, even when equity considerations are involved to rely upon.

Q And of course, in this application, Magnolia is the sole working interest owner of all the leases in consideration?

A That is correct.

Q And for commingling between leases, the royalty ownership is identical for all the leases?

A That is correct.

MR. NUTTER: Does anyone else have any questions? If there are no further questions of the witness, he may be excused.

MR. RICHARDSON: If the Examiner please, at this time I request that Magnolia's Exhibits Nos. 1 and 2 for identification be received in evidence.

MR. NUTTER: Without objection, Magnolia's Exhibits Nos. 1 and 2 in Case 1226 will be entered.

MR. RICHARDSON: I would like to next call Mr. L. E. Robertson, Jr.

LEE E. ROBERTSON, JR.

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

DIRECT EXAMINATION

BY: MR. RICHARDSON:

Q State your full name and your address, please.

A I am Lee E. Robertson, Jr. My address is 2406, Post Office Box 2406 in Hobbs, New Mexico.

Q Mr. Robertson, by whom are you employed and in what capacity?

A I am employed by Magnolia Petroleum Company in the capacity of District Superintendent of the Natural Gas Operations in the Lea District.

Q Does the Lea District cover Magnolia's holdings in the San Juan Basin with particular reference to Magnolia's holdings in the Rio Arriba County, New Mexico, which is the subject of these proceedings? A It does.

Q As I understand, you have not previously testified before this Commission? A No, I haven't

Q Will you then briefly outline your professional qualifications, your educational background and your practical experience in the oil and gas industry?

A I am a registered professional engineer, being registered in the State of Oklahoma. I am a graduate of Texas A and M College with a BS degree in chemical engineering and graduated in 1934. I have been employed by Magnolia Petroleum Company since October of 1937, and have been with Magnolia continuously ever since.

For several years, immediately after employement, I was on various plants and field assignments throughout the area in which Magnolia operated.

Following that, I spent about a year in gas measurement assignments, after which I was made district engineer and served most of the time, from 1941 to 1949 in the Gulf Coast area in the capacity of district engineer, involving operations mostly of very little plants.

In 1949 I was made assistant superintendent at a casing head gasoline recycling plant. I was there until 1955 when I was again placed on a field assignment in the Gulf Coast area. In June of last year I was transferred to Kermit, Texas as superintendent of that district, which covered New Mexico and part of West Texas.

In January of this year our district office was moved to Hobbs, New Mexico and we became the Lea District, which does cover all of New Mexico and part of West Texas.

In my experience with Magnolia, I have become familiar with

its general operations throughout the area, and I am familiar with various gas well tests and with the gas-oil ratio tests, as have been mentioned, and the use of those tests in the allocation of products back to individual well completions.

MR. RICHARDSON: Mr. Examiner, I request that the witness' professional qualifications be accepted.

MR. NUTTER: The witness' qualifications are accepted.

Q Mr. Robertson, are you familiar with the subject matter of Case 1226? A I am.

Q Do you have a copy of Magnolia's Exhibit No. 1 and 2 before you?

A I don't have one and two.

Q Do you now have copies of Exhibits Nos. 1 and 2 before you?

A I do have.

Q In the course of your duties with Magnolia Petroleum Company as district superintendent of the Natural Gas Department covering New Mexico, have you had occasion to inspect the natural gas operation effecting Magnolia's Chenney-Federal and Jicarilla "D" "E" "F" "G" and "H" Leases in Rio Arriba County?

A I have had that occasion. I have visited the field several times since I have been in this area. Most of those trips were made in good weather. The various well sites were accessible by the existing roads. I was out there in the area concerned as late as February of this year. At that time, we managed to make a trip to some of the well locations by the use of a four wheel drive jeep. Some of

the roads were impassable at that time.

Q Mr. Robertson, this Commission will probably take official notice of the nature of the terrain where Magnolia's Chenney-Federal and Jicarilla "D" "E" "F" "G" and "H" Leases are located, but will you, from your personal observation of this area, describe for the record, the general nature of the terrain?

A The general nature of the terrain at our Chenney-Federal and Jicarilla "D" "E" "F" "G" and "H" Leases is mountainous, covered with mountains and valleys, or canyons. The mountain slops are rather steep in this area. The canyons quite often have deep washes resulting from rains in the mountains, and the melting snows. These washes may vary from a shallow ditch to a wash some ten to fifteen feet deep.

MR. RICHARDSON: Mr. Examiner, I request at this time that Exhibit No. 3 entitled Schematic outline of lease roads on schematic diagram of liquid gathering system from existing wells to proposed batteries be marked for identification as Magnolia's Exhibit No. 3.

Q Mr. Robertson, I have handed you a copy of Exhibit No. 3 for identification. Would you describe what this map represents, just generally? It is entitled Schematic outline of lease roads on schematic diagram of liquid gathering system from existing wells to proposed batteries.

A This Exhibit 3 represents a schematic outline of our various lease roads to the existing wells that have been completed by

Magnolia.

Q How was this Exhibit No. 3 prepared?

A In preparing this Exhibit No. 3, I used the basic map which was used to prepare Exhibit No. 1, and on that I outlined the existing roads.

Q Referring now to Exhibit 3 for identification, will you describe the existing lease roads and their general condition, the general condition of these roads?

A You will notice on Exhibit 3 that all of our roads, as indicated, are outlined or are on the map in red, in solid red lines. On this Exhibit you will notice the name Tapicitio Canyon on the left center part.

Our main road into the area of our Jicarilla "D" "H" and "G" Leases lies on the north side of Tapicitio Canyon about half way across the unmarked section in the left portion. Before we take this lateral, I might add that this road, being our main road, has carried most of our traffic in and out of this part of the field for drilling operations. It has received more maintenance and is in better shape than any of our other roads.

Now, about the southwest corner of unmarked Section 3, 26 North, 3 West, there is a lateral going north to our Jicarilla "F" Lease in the Southwest Quarter of Section 27 North, 3 West. This road is really not much of a road. In preparing that road, only the bushes and grass was scraped off to prepare for hauling the necessary equipment for drilling. That same fact is true of most of our lease

roads in this field. Most of our drilling has been done in the summer months when good weather prevails, and as long as the drilling can be done in that kind of weather, it is not necessary to do extensive work in building up the road for that transportation.

As we have gone eastward on this road, in Section 2 of 26 North, 3 West, we find a lateral running south. This lateral closes Tapicito Canyon and proceeds southward past our Jicarilla "H" 1 Well and our Jicarilla "D" 2 Well, and terminates in the Southwest Quarter of Section 24 at our Jicarilla "D" 1 Well. This road, like the previous laterals mentioned, was bladed just to free it of brush without any preparation for adequate drainage.

You will notice in our lower part of this outline, in the Southwest Quarter of Section 23, 26 North, 3 West, there is a short curved road indicated, and also from our Chenney-Federal Well in the Southwest Quarter of Section 8, 26 North, 2 West, a line running southwestward. These two roads connect.

This basic map did not extend far enough to show the entire road. However, between the two sections of road there is a heavily wood**ed** section of mountain slops, which is not cleared in a wide enough lane that would permit long trucks or transportation trucks to use that road. There is sharp turning and some steep grades, but that road also is just cleared out enough to move some of our equipment through and to aid communications between the Chenney-Federal Lease and the rest of our operations in that area.

Now, back to our main road just north of Tapicito Canyon, we

have another short lateral taking off in a northerly direction to the Northwest Quarter of Section 2, which is the location of our Jicarilla "H" 2 Well. That also is just bladed free of brush. Further to the east, about half a mile beyond our proposed tank battery site, where we propose to have two batteries located, this road forks, one fork going back to the northwest and northward to the Jicarilla "G" 1 in the Northwest, Northeast Quarter of Section 35. The other fork continuing northeasterly and northward to the Jicarilla "G" Well No. 2 in the Northeast Quarter of Section 25 in 27 North, 3 West. Especially, the lateral going to the "G" 2 Well, it is in a very poor condition. You will notice that it crosses a dotted or dashed-line in Section 25. The dash-line represents a new federal government constructive road still under construction.. At this time, it is almost impossible to move any equipment across that road due to the ditches and fills accompanying the construction.

Now, in the north part of this outline, this map, you will see a road coming down into the northwest corner of Section 11, 27 North, 3 West, and that road extends to our Jicarilla "E" Well No. 1 in Section 12. Back in Section 11, a lateral comes south from that road and goes to our Jicarilla "F" Well No. 1 in the Northeast Quarter of Section 22, and a fork lateral from that same road comes down to the "E" No. 2 Well in the Southwest Quarter of Section 14, all in 27 North, 3 West. These roads also have just been bladed enough to make them passable in the good weather they had during the drilling season to get their equipment in to the various wells.

The lateral coming south in Section 11 there crosses a rather deep wash, which becomes impassable without too much arrangement in that area, but none of the roads, other than our main Tapicito Canyon road, which extends approximately six miles in length from a point of junction with the Dulce Road, to a point about half a mile beyond our proposed central tank batteries in the Southeast Quarter of Section 2 in 26 North, 3 West. That road having accommodated the bulk of our traffic into that area has been kept in rather fair condition, and is passable most of the time.

Q Would you explain how you propose to move the liquids that are stored in the proposed tank battery appearing in the Southwest Quarter of Section 26, Township 27 North, Range 3 West?

A That product will be moved by truck. Our present plans are to extend and repair the road, repair the lateral going to our Jicarilla Well "G" 1 in the Northwest Quarter of Section 35, and then extend that road to that tank battery. However, when the government road is completed, running through Sections 33, 34, 27, 26, and 25, all in 27 North, 3 West, that tank battery will be easily accessible from that road. The opening of that improved road will also give another access to the tank battery, tank batteries located in the Southwest Quarter of Section 2, 26 North, 3 West.

Q Mr. Robertson, have you had occasion to make a study of the cost of placing just the existing lateral roads in a condition to serve Magnolia's Leases for the purpose of removing the liquids from the individual lease tanks on the various leases?

A We have done some estimating on what our costs will be to improve the roads that now exist to where they can reasonably handle the traffic necessary to move our product out. We've estimated that to put these roads up in a serviceable condition will cost approximately seventeen thousand dollars initially. Further, we estimate that to maintain these roads in such a condition, it will cost approximately an additional seventeen thousand dollars per year.

We have a total lease road mileage in this area of twenty-six and seven tenths miles. Those costs reflect the cost that will be necessary to build the roads up, that is, to provide drainage ditches or bar ditches along the side of the road and shape the road so as to shed water. It does not include any particular surfacing. It would still be native soil.

Q This estimate of approximately seventeen thousand dollars just to get the present lateral system in shape, and an additional seventeen thousand, approximately, each year for maintenance, refers only to the wells which have already been drilled, is that correct?

A That is correct, those present wells that have been completed in our leases.

Q What then would be the cost of placing additional lateral roads in condition to service Magnolia's additional wells which Magnolia contemplates drilling on the various leases?

A I believe the cost will increase in proportion to the additional mileage necessary to reach the new locations, the new

wells.

Q Is that construction or maintenance, or both?

A That would be both, improving the roads initially and to maintain them on a yearly basis.

MR. RICHARDSON: That is all of the direct on this witness, Mr. Examiner.

MR. NUTTER: Does anyone have any questions of the witness?

MR. UTZ: I have one.

MR. NUTTER: Mr. Utz.

CROSS EXAMINATION

BY: MR. UTZ:

Q Is it Magnolia's intention to keep a pumper active in this lease at all times?

A At present we do not. We, our company and Pacific Northwest Corporation have been negotiating, or has negotiated, toward Pacific operating these leases and making gauges that are required for our liquid production.

Q What precautions do you have, or do you intend to have to prevent the storage running over?

A Where we have tank batteries consisting of more than one tank, which we will certainly have in our central batteries, we have equalizing lines that will utilize the entire storage capacity before there is any spillage over of tanks. When the tank fills to the equalizing line, it will drain over into the next empty tank or the next tank, which is lower in level.

Q Is it conceivable that weather and road conditions will get in such a bad state that you couldn't get into these leases for a period greater than ten days?

A From what I have been able to find out, it seems that that should be about a maximum. We certainly hope that we won't run into any longer period than that. Usually, it is about five to seven days. That is about as much as the weather keeps traffic out of that area, but there could be occasions when it could extend possibly to ten days, but we hope that we can get some kind of personnel in there with some means of transportation within any ten day period.

Q Is there any chance it would be less with your proposed central tank batteries than it would if you had separate tanks for each well?

A I believe there would be less chances of any tanks running over if we had central tank batteries.

MR. UTZ: That's all I have.

MR. NUTTER: Does anyone else have a question?

BY: MR. NUTTER:

Q Mr. Robertson, your Schematic outline of lease roads was made by you, I think you stated. Now, did you make, did you draw the location of these roads on here from your own personal knowledge of the location of them?

A Yes. I have been on all of those roads. Now, these are schematic, they are not exact locations.

Q We realize that.

A The roads in that area wind around considerably. They follow the rims of the canyons ordinarily.

Q So that the location and the quality of the roads is the result of your own direct observation?

A Yes, sir.

Q To your knowledge, are there any other roads in the area?

A There are trails. Now, I have not been on the other roads in the area on our own leases. I know of no other existing roads other than -- Well, I shouldn't comment on this because there has been an additional road made since I have been up there, but on a temporary basis, due to the bad weather and it does take off of one of our laterals.

Q I see. Now, you stated that you would have ten days' storage capacity. Do you imply that each of these three batteries will have ten days' capacity for the wells that are presently completed?

A That's right, that's what we contemplate.

Q And as additional wells are drilled, will additional storage capacity be added to the batteries?

A If it is felt that we may not be able to haul out for a period of ten days, we would still maintain a ten day storage capacity.

Q In the event the weather becomes bad in this area, is it more likely that a truck to haul the condensation out would be unable

to get into the area than a switcher to go in and shut the wells?

A Yes, I believe a switcher could get in quite a bit before a transport truck could.

Q So if bad weather was prolonged for a period of more than ten days, it would be possible to shut the well?

A Yes, sir.

Q Before you would be able to haul any distillate oil out?

A That's right.

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

MR. UTZ: Yes, I have one additional question.

MR. NUTTER: Mr. Utz.

BY: MR. UTZ:

Q Mr. Robertson, it is your intention, I am sure, to report the gas separately and the oil, in each formation, is it not?

A Yes, we would be able to report the gas separately, and through the gas-oil ratio test, we would be able to report the oil separately.

Q Do you have any designations in mind on dual completions so as to persue the possibility of clerical errors in reporting the gas from dual completions? In other words, designating the well and the formation from which the production is reported?

A In most of our records now, they are reported by the formation and the well number, or by the well number and the upper or lower tubing completion.

Q Would you be receptive to a suggestion that you report the production from these wells from the formation symbol, such as PC for Pictured Cliffs or MV for Mesaverde?

A I see no reason why we can't do that.

Q That would help us in keeping our records straight.

A It could avoid errors in our own records. We do need -- In all of our testing and production records, and all, we need to differentiate between the Mesaverde and the Pictured Cliffs completion.

MR. UTZ: That's all I have.

MR. NUTTER: Are there any further questions of the witness? If not, the witness may be excused.

MR. RICHARDSON: I would like to request at this time that Exhibit No. 3 for identiciation be received in evidence.

MR. NUTTER: Without objection, Magnolia's Exhibit No. 3 in Case 1226 will be admitted.

Does anyone have anything further they wish to offer in this case?

MR. DUGAN: I have a statement to make. Pacific Northwest Pipe Line Corporation feels that Magnolia designed a very feasible liquid gathering system for their leases in the Jicarilla, and we feel that it will alleviate some of our problems as to the gathering of the gas and transporting it, and there are several distinct advantages also to this system that I don't believe have been brought out yet. One is, this system will greatly reduce the loss of liquid

due to metering at individual tanks, whereby the liquid is gathered in a group like this, and transported more often at a steady rate rather than letting it set at an individual tank for, say a week, or longer. It will reduce loss of fluids that way, and also reduce the opportunity for waste to occur, and reduce the spillage to some extent, so Pacific is in favor of this method of liquid gathering.

MR. NUTTER: Thank you, Mr. Dugan. Does anyone else have anything further?

MR. RICHARDSON: For the convenience of the Commission, I have prepared a proposed -- a draft of a proposed form of order. Is it your procedure to mark that for identification, or would it be --

MR. COOLEY: We will just accept it now.

MR. RICHARDSON: There is nothing further, Your Honor. This concludes Magnolia Company's presentation of Case No. 1226.

MR. NUTTER: If there is nothing further in Case No. 1226, we will take the case under advisement and the hearing is adjourned.

****

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 Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 2nd day of April, 1957, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. A. Trujillo
Notary Public

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1220, heard by me on March 20, 1957.

New Mexico Oil Conservation Commission, Examiner