BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 29, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of The Atlantic Refining Company for a unit agreement, a pressure maintenance project and the reclassification of two wells, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Horseshoe-Gallup Unit Agreement embracing 20,925.58 acres, more or less, of Federal, State, Indian and fee lands in Townships 30 and 31 North, Ranges 16 and 17 West, San Juan County, New Mexico. Applicant further seeks permission to institute a pressure maintenance project in the proposed Horseshoe-Gallup Unit Area with water to be injected into the Gallup formation through 112 wells located in said unit, and requests adoption of special rules to govern the operation of said project. Applicant further seeks the reclassification of two wells located in the proposed unit area from Verde-Gallup Oil Pool wells to Horseshoe-Gallup Oil Pool wells, the Verde-Gallup Oil Pool to be contracted by the deletion of the NE/4 NE/4 of Section 2, Township 30 North, Range 16 West, and the SW/4 SW/4 of Section 36, Township 31 North, Range 16 West, said acreage to be included in the Horseshoe-Gallup Oil Pool.

CASE 2519

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 2519.

MR. WHITFIELD: Application of The Atlantic Refining Company for a unit agreement, a pressure maintenance project and the reclassification of two wells, San Juan County, New Mexico.

MR. BRATTON: Howard Bratton of Roswell appearing on behalf of the applicant. We have two witnesses.

MR. UTZ: Are there other appearances in this case?

MR. BUELL: For Pan American Petroleum Corporation, Guy Buell.

MR. UTZ: Any other appearances? We will swear the witnesses.

(Witnesses sworn.)

T. O. DAVIS

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

DIRECT EXAMINATION

BY MR. BRATTON:

Q Mr. Davis, will you state your name, by whom you are employed?

A T. O. Davis, employed by The Atlantic Refining Company.

Q Where is your office, Mr. Davis?

A It's in Denver, Colorado.

Q Do you have jurisdiction over the San Juan Basin, and particularly the Horseshoe-Gallup area?

A Yes, we do.

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

A Yes.

Q Are you familiar with the Horseshoe-Gallup Unit Area and the proposed application?

A Yes, I am.

Q Mr. Davis, are you familiar with the Horseshoe-Gallup Unit proposal and the efforts at unitization?

A Yes.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

Q I'll refer you to what has been marked as Exhibit No. 1. Is that a copy of the proposed Horseshoe-Gallup Unit?

A Yes, it is.

Q And that field is located in San Juan County?

A Yes, sir.

Q What formation is proposed to be unitized?

A It's the Gallup formation.

Q Does this unit include all of the productive area in the Horseshoe-Gallup Pool?

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

A No, it doesn't. I would like to refer to Exhibit 2 in the bound folder. Exhibit 2 is a map of the Horseshoe-Gallup Field and the dotted black line is the outline of the proposed Horseshoe-Gallup Unit. The red colored area is the proposed participating area. The proposed Horseshoe-Gallup Unit includes the area in the central portion of the Horseshoe-Gallup Field. In the northwest portion Humble is operating a pressure maintenance project, and in the southeast portion of the field Pan American's Northeast Hogback Unit is operating as a pressure maintenance project. So our proposed unit is in the central portion of the Horseshoe-Gallup Field. It does not cover the entire field.

Q Within our unit area is Atlantic now operating a pressure maintenance project on its leases?

A Yes, sir. In 1961, in June, 1961, under Commission Order R-1699, June, 1960, excuse me, Atlantic received approval to operate a pressure maintenance project on what we call our Navajo A and Navajo B leases.

Q And that's in the proposed unit area?

A Yes.

Q So the proposal here today, the unit and the pressure maintenance project are actually expansions of Atlantic's

pressure maintenance project?

A That is true.

Q To cover the area lying between the Humble pressure maintenance project and the Pan American project?

A That's correct.

Q What is the extent of the unit area, Mr. Davis?

A The unit area includes 20,925.58 acres.

Q What type of lands are involved?

A We have in this proposed unit, there are tribal Indian lands, allotted Indian lands, Federal lands and State of New Mexico lands.

Q Approximately 90% of the lands are tribal lands, is that correct?

A That's correct.

Q And approximately 9% are Federal lands and the balance are fee and state lands?

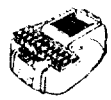
A That's correct.

Q Now, how about the participating area?

A The proposed participating area includes 13,726.41 acres and about 81% of this acreage is tribal Indian lands.

Q I might ask at this point, Mr. Davis, is the participating area provided for in the unit agreement?

A Yes.



Q Is this a standard Federal type of unit agreement?

A Yes, it is. It was patterned after the West Bisti Unit Agreement which has been approved.

Q Just to determine one point, basically the participating area encompasses all of the productive acreage within the unit boundary, is that correct?

A That's true.

Q Turning to the ownership, working interest ownership within the area, what percentage of that is committed, Mr. Davis?

A 99% of the working interest have executed the unit agreement.

Q Now, that's 99% of the working interest in the participating area?

A Correct, on the basis of the participation formula in the unit agreement.

Q And that is the significant area as far as the operation is concerned, the area on the fringesis for buffer zone, is that correct?

A That is right. The area outside of the participating area, but within the unit area, has no participation percent assigned to it.

Q Is that reflected on your Exhibit No. 3, Mr. Davis?

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

A Yes. Exhibit No. 3 is a map of the proposed unit area on which tracts which are 100% committed as to working interest are shown in red. The areas or the tracts which are not committed are uncolored, and to explain the status of some of these uncommitted tracts, starting on the northwest portion of the unit there is a Navajo unleased tract, Tract No. 22; this is an unleased tract, the Navajo Indians own both the working interest and the royalty interest and they have advised that they will not commit this tract. It has no participation.

Tract No. 1 is adjacent to this Tract No. 22; in this tract there are three working interests, El Paso Natural Gas Products Company, Delhi-Taylor and Reynolds Mining Company, and two of them have committed their interests. We expect Reynolds to commit theirs before the effective date.

Tract No. 2 on the Texaco Tract on the west side of the unit will not be committed. It has no participation, and Tract No. 4, Pan American Tract on the west, southwest side, No. 14, rather, will not be committed. It has no participation.

Now, going down to the south portion of the unit, Tract No. 43 will not be committed, this tract has very low participation and the working interest owners prefer to leave it out. Adjacent to, cornering on Tract 43 is Tract No. 34, there are three working interest owners in this tract. Two have committed, we expect

the third one, which is owned 25% by Hazel Bolack, we expect this to come in. On the southeast portion of the proposed unit area, Tract No. 23, and Aprock Tract will not be committed. That leaves Tract No. 20, which is in the central portion of the area. This tract is owned 100% by Banner Drilling Company and Mr. Banner advised us about a week and a half ago that he would commit this tract to the unit.

Q So far as your working interest is committed to the unit, Mr. Davis, you have more than effective control of the unit area for the purposes of this pressure maintenance project?

A In my opinion we certainly do.

Q How about your royalty interest, is that reflected on Exhibit 4?

A Yes, it is.

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)

Q What generally is the status of the royalty committment, Mr. Davis, without going into each of the tracts there?

A We have 99% of the royalty interest committed.

Q In this connection, have both working interest owners and royalty interest owners, all of them been offered an opportunity to join the unit?

A Yes, they have.

Q Does the unit contain provisions for subsequent joinder?

A Yes, it does.

Q Are the tribal Indian lands committed, have the tribes indicated their approval?

A They have, and they have signed the ratification to the unit agreement.

Q Has the agreement been submitted to the United States Geological Survey for tentative approval as to form and area?

A Yes. And the United States Geological Survey has approved it with certain modifications which have been incorporated in the unit agreement.

Q So that all of their suggestions are now incorporated in the unit agreement?

A Yes, sir.

Q How about the State of New Mexico?

A The State of New Mexico, the Land Commissioner's office has also approved the unit agreement as to form and unit outline.

Q Will Atlantic be the unit operator?

A Yes.

Q When will the unit become effective, Mr. Davis?

A It will become effective on the first day of the month following final United States Geological Survey approval.

Q In your opinion, Mr. Davis, will operations under this

unit agreement promote greater ultimate recovery?

A Yes, sir.

Q And will operations under this unit protect correlative rights and prevent waste?

A Yes, sir.

Q Is there anything further you care to state with relation to the status of the unit?

A No.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A Yes.

MR. BRATTON: We have no further questions of this witness at this time.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Davis, did you have much difficulty in communitizing Indian land with state land?

A No more than normal difficulties.

Q How long did it take you to get this unit together?

A We started negotiations on this unit in December, 1959. It's been roughly two and a half years to this point.

MR. UTZ: Are there any other questions? The witness may be excused.

(Witness excused.)

EUGENE F. HERBECK

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

DIRECT EXAMINATION

BY MR. BRATTON:

Q Mr. Herbeck, will you state your name and position with Atlantic Refining?

A My name is Eugene F. Herbeck. I am a senior petroleum engineer with Atlantic in the Denver office.

Q Have you previously testified before this Commission?

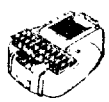
A No.

Q Will you state briefly your professional and educational background?

A I graduated from the University of Oklahoma in June of 1950 with a degree in petroleum engineering. I went to work for The Atlantic Refining Company upon graduation. I spent about two years doing field work, after that I went to the Dallas office where I worked as a reservoir engineer; in July of 1954, I went to Midland, Texas as a district reservoir engineer and I was there until August of 1961. I have been in Denver since then.

Q Since that time have you been working on the Horseshoe-Gallup project that's under consideration here today?

A Yes, I have.



MR. BRATTON: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

(Whereupon, Applicant's Exhibit No. 5 was marked for identification.)

Q (By Mr. Bratton) Mr. Herbeck, turn to Exhibit No. 5 and explain what that is, please. Excuse me, before we do that, will you state just briefly the history of the field here?

A This field was discovered in September of 1956 with the completion of Arizona's Petro Atlas Bolack No. 1 Well. This well is located 1,450 feet from the south line and 1,980 feet from the east line of Section 9, Township 30 North, Range 16 West. This well potentialed on pump for 28½ barrels per day. Development in this field took place on 40-acre spacing and there are 268 wells in the unit area.

It became evident shortly after this field was discovered that some form of pressure maintenance was needed to achieve maximum recovery. In December of 1959 the operators met to discuss the possibility of the unitization and pressure maintenance. They organized an engineering subcommittee. This engineering subcommittee first met in January of 1960, it has met a total of sixteen times for a combined total of sixty-four days, during which they studied this field and worked out this pressure

maintenance program. So I should give them credit that much of the testimony and the exhibits here were worked out by the engineering subcommittee.

Q Now, refer to your Exhibit No. 5, Mr. Herbeck. Will you explain what that is?

A Exhibit No. 5 is what we call a type log showing one of the wells in the Horseshoe-Gallup Unit Area. This log is on The Atlantic Refining Company Navajo No. 17 Well. This is one of the wells referred to in the unit agreement to describe the unitized interval. The No. 17 Well is located in the Northwest Quarter of Section 31 near the center of the field. The unitized formation is from the lower Gallup correlation point to the top of the Juana Lopez. The lower Gallup correlation point is marked on here. It appears at about 1114 feet, it is where there is a kick on the resistivity log.

The Juana Lopez appears on here at 1287 feet. Within this unitized interval we have two sands, these we refer to simply as the upper and the lower Tocito Sands. These are marked on the log.

Q These are the two sands from which the production is coming and into which the water will be injected in the pressure maintenance program?

A That is correct.

(Whereupon, Applicant's Exhibits Nos. 6 and 7 were marked for identification.)

Q Now, refer to your Exhibits Nos. 6 and 7, Mr. Herbeck, those are two cross sections of the field, is that correct?

A That is right.

Q And No. 6 is a longitudinal cross section from northwest to southeast?

A Yes.

Q Does it show the continuity of the upper zone throughout the entire unit area?

A It shows the continuity where it is present on the first well shown, Mobil Oil Company's Navajo "A" 23, the upper sand is identifiable, but is so poorly developed that it is not productive. That is true as you approach that area of the field.

Q And the lower zone?

A The lower zone is also shown to be continuous.

Q Refer to your Exhibit No. 7, your transverse cross section. What does it reflect as to the two zones?

A This would also show that both zones are continuous where present. The upper zone, as you can see, is better developed in the central part of the cross section. The lower zone is present only in the central part of the cross section. It does

not exist on the extreme flanked wells.

Q This will be later reflected in the isopach maps?

A Yes, it will.

Q Is there anything further that you want to bring out about these cross sections, Mr. Herbeck?

A Exhibit No. 6 does give an idea of the dip of the formation, though that will be brought out further with the structure map. This is in Well No. 1, you can see that the upper sand appears at about 825 feet whereas on the other side of the cross section the upper sand appears at around 1500 feet, showing the dip in a southeasterly direction.

Q This is also reflected on your structure map Exhibit No. 8, is that correct?

A Yes.

(Whereupon, Applicant's Exhibit No. 8 was marked for identification.)

Q Will you refer to it, then, and explain on what it is contoured?

A This map is contoured on the lower Gallup correlation point.

Q What else does that structure map reflect, Mr. Herbeck?

A It shows that across the field we have a monoclinal structure, the high is at the west end and it dips in a northerly

and easterly direction.

Q Is there a gas cap present in this area?

A There is a gas cap in both sands. In the upper sand it's at 4413 feet above sea level and in the lower it's about 4373 above sea level. This map was contoured on the lower Gallup correlation point, but we can get an idea of what area is covered by the gas cap. The contour on here, which is at 4450 feet, circles the area that is covered by the gas cap in the upper sand, and the contour on here at 4500 feet circles the area which is covered by the gas cap in the lower sand.

Q In that connection later you'll show the location of injection wells which will prevent any loss of oil into the gas area, is that correct?

A Yes.

(Whereupon, Applicant's Exhibits Nos. 9 and 10 were marked for identification.)

Q Let's refer briefly to your isopachs Nos. 9 and 10, Mr. Herbeck, and explain what they reflect, please.

A Exhibit No. 9 is a net pay isopach on the upper oil sand. It is showing the isopach on the oil part of the sand only. It does not show the thickness on the gas part of the sand. The map shows that the thickness varies considerably in the upper sand.

Q No. 10 reflects your isopach on the lower sand?

A Yes.

Q And it shows it to be narrower in width than the upper sand, is that correct?

A Yes.

Q Is there anything else significant about the two isopachs, Mr. Herbeck?

A On this lower sand isopach it should perhaps also be noted that it is only the lower sand that is present in the extreme northwest part of the unit. It's the only sand productive under Humble's injection program northwest of the unit area.

(Whereupon, Applicant's Exhibit No. 11 was marked for identification.)

Q Let's go to our Exhibit No. 11, which is a tabulation of information from the Horseshoe-Gallup. I believe the general information in the reservoir and fluid information are self explanatory. Let's turn only to the production summary as to what we are estimating out of this pressure maintenance program. Would you explain what you are anticipating by way of additional recovery out of this pressure maintenance program?

A All right. The original oil in place in the unit area is 98.2 million barrels. We expect to recover 14½% of this by primary recovery, which would be 14.1 million barrels. As of

this time, or rather as of the first of the year, the unit area had produced 9½ million barrels of oil, leaving 4.6 million to be produced by primary.

Q So you have approximately 33% of your primary still remaining?

A That is right.

Q About how long would you anticipate the primary production would last absence this pressure maintenance program?

A About ten more years.

Q What do you estimate by way of recovery by this pressure maintenance program?

A We expect to recover an additional 24 million barrels of oil. The injection program will have in itself a recovery factor of 24½%, combining both what we would recover by primary and by injection, it would be 38.1 million barrels of oil for a recovery factor of 39%.

Q Then follows the plans for your program, would you explain those?

A The number of injection wells is 112, the estimated daily injection rate would be 30,000 barrels. Total water requirements, 165 million barrels. The water would be supplied by four water supply wells, we estimate the life of the project to be sixteen years.

Q We'll go further into those in later exhibits, is that correct?

A Yes.

(Whereupon, Applicant's Exhibit No. 12 was marked for identification.)

Q Let's go to Exhibit No. 12, the graph of the primary performance. What does that reflect your current daily production from the unit area is?

A The current daily production is 5,700 barrels per day.

Q And it is definitely on the decline, exhibiting the need for the full scale institution of this pressure maintenance project?

A Yes.

(Whereupon, Applicant's Exhibit No. 13 was marked for identification.)

Q Now, let's turn to your Exhibit No. 13, which is your proposed water injection pattern. Explain that, if you would, please.

A Well, first of all, the nomenclature that we are using here where we have placed a square around a well as we have the northwest edge of the unit, that means that we will be injecting into the lower sand only. Where there is a circle around the well it means that we will be injecting into the upper sand only. The

triangles indicate that we will be injecting into both the upper and the lower sands. We are planning here a five spot injection pattern around the edges of the field and a nine spot injection pattern in the central part of the field. We are using the five spot around the edge because the permeability is lower there. The five spot pattern with the one injection well supports one producing well, and with this lower permeability we feel that is what is needed.

In the central part of the field with a nine spot, one injection well supports three producing wells, and we feel that we have sufficient permeability that this can be done in the central part of the field. If we should find out later that we need more injection wells in the central part of the field, it will be an easy matter of adding additional wells and converting that to a five spot pattern also.

Q In your opinion are the injection wells you have scheduled in the northwest part of the field adjacent to the gas cap area sufficient to prevent the migration of any oil into the gas area?

A Yes, they are. Two of the wells marked No. 24 and 25 on this map in Section 14 will be new wells which are to be drilled.

Q Do you anticipate any problem in cooperative agreements between yourself and the Humble flood to the northwest and the

Pan American flood to the southeast?

A No, this pattern will fit in with the one they are using on their floods.

Q The injection wells shown in red are the ones now operating under Atlantic's pressure maintenance project?

A Yes, with the exception of Mobil's well over here, their No. 9 well which is also on injection, but it is not under the same order.

Q It's under the order in conjunction with and in cooperation with the Humble flood, is that correct?

A Yes.

(Whereupon, Applicant's Exhibit No. 14 was marked for identification.)

Q Let's turn then to your Exhibit 14, your casing program, Mr. Herbeck. Without going in detail through this, there are so many wells there, in your opinion is the casing program satisfactory to insure that the water will go into the two formation's two stringers that we are proposing to inject into?

A I believe that it is. I should mention that where we're going to be injecting into both wells, we intend to dual those wells so that we can meter the water going to each zone separately.

Q In this area what, if any, fresh waters are there,

Mr. Herbeck?

A I'm not aware of any fresh water in this area, the Point Lookout sand is a basal sand of the Mesaverde group, is the only possible water-bearing sand present above the pay. It is present only over about two-thirds of the field where it's the caprock for some of the existing bluffs in the field. It's right at the surface.

Q That would be above your surface casing?

A Yes, it would.

Q Have you sent your casing program and a copy of the application and a copy of the water analysis and all other information required by the State Engineer's office to Mr. Irby?

A Yes.

Q What is your water source?

A The water source will be the Morrison formation.

Q What wells do you now have and what do you propose?

A We currently have one water supply well, it's located 1375 feet from the south line, 1815 feet from the east line of Section 19, Township 31 North, Range 16 West.

In that well the Morrison was found from 2,106 feet on downward to about 2752 feet. It is perforated in selected intervals from 2220 to 2752 feet. We propose to drill three additional water supply wells, one will be in the Northwest

Quarter of Section 32, Township 31 North, Range 16 West, the other will be in the Southeast Quarter of Section 4, Township 30 North, Range 16 West, and the third one will be in the Northwest Quarter of Section 34, Township 31 North, Range 16 West.

Q Do you anticipate these waters will be sufficient to maintain the entire program?

A Yes, we do.

Q Have you previously sent an analysis of this water to Mr. Irby in connection with your current pressure maintenance project?

A We had submitted a copy of the water analysis at the time in 1960 in connection with our current project.

(Whereupon, Applicant's Exhibit No. 16 was marked for identification.)

Q Do you have an Exhibit 16 which is a copy of a water analysis dated, I believe it's August, 1961?

A Yes, both Exhibits 15 and 16 are water analyses taken in August of '61, they were, the samples were simply caught in different places in our injection system. Both analyses show that the water is brackish and has an, essentially the same solid content as was submitted in 1960.

Q In connection with your injection program, Mr. Herbeck, you propose to inject down the tubing and down the tubing casing

annulus, is that correct?

A Yes.

Q Do you anticipate any problems in that connection?

A We have recently detected some corrosion in the field. Now, the water itself I don't believe is corrosive. When we started our first project our chemical engineers checked the water, they said it was not corrosive, if we used a close system we wouldn't have any trouble. About last November we did detect some corrosion, which I think is being caused by developments in our system, that some oxygen has been detected in the water, and we think it is coming in from our water supply well, which we intend to remedy. We have also found some hydrogen sulphide, which is probably being caused by bacteria and steps will be taken to prevent corrosion from that.

Q If necessary, by means of coupons and inhibitors, you can control any problem in that connection that might arise?

A Yes, we will use corrosion coupons to keep a check on this problem and take methods to keep it corrected.

Q Now, Mr. Herbeck, in connection with this application I believe you have requested that two wells be reclassified from the Verde-Gallup to the Horseshoe-Gallup as they are to be included in the project, is that correct?

A The request was for four wells to be transferred from

Verde-Gallup to Horseshoe-Gallup Field.

(Whereupon, Applicant's Exhibit No. 17 was marked for identification.)

Q I believe two of those in the West Half of the Northeast of Section 2 are already in the Horseshoe-Gallup. Turning to the two wells in the Northeast of the Northeast of Section 2, 30, 16, and the Southwest Southwest of 36, 31, 16, what does your Exhibit No. 17 reflect in connection with those?

A This exhibit shows the log on compass explorations, Horseshoe Canyon No. 3, one Indian well on the El Paso Navajo Lowe No. 3 Well, and on The Atlantic's Ute No. 1 Well. These wells were selected because they fairly well cover the area in which we are interested. On this exhibit the lower Gallup correlation point is marked, also marked on there is the upper Tocito sand, and by comparison with Exhibit No. 5 we can see that we have the same sand present in this area that is present over the rest of the Horseshoe-Gallup Field.

Q So, do you believe that they should properly be classified into the Horseshoe-Gallup and operated in connection with this project?

A Yes.

Q Let's turn to your next exhibit.

MR. UTZ: How much more testimony do you have from this

witness?

MR. BRATTON: We are on the rules and they will take one minute because they are almost identical with the rules we are presently operating under.

MR. UTZ: All right, why don't you go ahead.

(Whereupon, Applicant's Exhibit No. 18 was marked for identification.)

Q (By Mr. Bratton) Is your Exhibit 18 a copy of the proposed rules, Mr. Herbeck?

A Yes, it is.

Q Are they in line with the rules now in effect for the Horseshoe project, with the exception of sub paragraph three?

A Yes. Rule 11 provides for the method of expanding the project, drilling and converting additional wells to injection. In sub paragraph three of that we have added the words "within a one-mile radius" so that it would read a letter stating that all offset operators within a one-mile radius to a proposed injection well have been furnished a complete copy of the application and the date of notification. We have done that with the intent of better defining which offset operators are to be notified.

Q Is there anything further you care to state in connection with any of the exhibits presented here, Mr. Herbeck?

A No, sir.

Q In your estimate, will the granting of approval of the unit agreement and the pressure maintenance project, result in the protection of correlative rights and the prevention of waste?

A Yes, sir.

Q Were Exhibits 5 through 18 prepared by you or under your supervision?

A These are, though in some cases the work of the engineering subcommittee was employed, and I had checked over all that work.

MR. BRATTON: We would offer into evidence Atlantic's Exhibits 1 through 18 inclusive, and we have nothing further to offer at this time.

MR. UTZ: Without objection, Atlantic's Exhibits 1 through 18 will be entered into the record.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Herbeck, except for that small change of Rule 3, would you say that this recommended order was the same as 1699, R-1699?

A Yes.

Q Actually, R-1699 is the pilot order for this same area here, is it not?

A Yes.

Q And outside of that small change in wording, then, all that will really be necessary will be just to expand the pilot order, would that follow?

MR. BRATTON: I think that would be satisfactory, yes.

Q The two Verde wells which you requested reclassification, I wonder if you would give me those locations.

MR. BRATTON: Those would be in the Northeast of the Northeast of Section 2, 30 North, 16 West, and the Southwest of the Southwest of 36, 31, 16. I believe we also asked for the two wells in the West Half of the Northeast of 2, but I checked over and I think they are now defined as being in the Horseshoe-Gallup.

Q In Section 2, which well again?

A Northeast of the Northeast of 2 is the one to be transferred, and also in 36, 31, 16, the Southwest of the Southwest.

Q Those are the only two wells?

MR. BRATTON: Yes, sir.

MR. UTZ: Are there other questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case?

MR. BUELL: The record will reflect, Mr. Examiner, Pan

American is the operator of the pressure maintenance program in the Northeast Hogback Unit, which is adjacent to the Atlantic project area. Our engineers have followed the Atlantic project very closely and it is their considered opinion that it is an extremely worthy conservation effort. For that reason Pan American would like to strongly support Atlantic's application and urge that the Commission adopt it as recommended.

MR. UTZ: Any other statements?

MR. WHITFIELD: If the Examiner please, the Commission has received correspondence from Mobil Oil Company, the Hidden Splendor Mining Company, Continental Oil Company, Sohio Petroleum Company, Texaco, Inc., El Paso Natural Gas Products Company, --

MR. BRATTON: I believe that's a duplicate of the telegram from Continental.

MR. WHITFIELD: -- all supporting the application of Atlantic Refining Company.

MR. UTZ: Are there other statements? The case will be taken under advisement. We'll recess until 1:30.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 4th day of April, 1962.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2519, heard by me on May 28, 1962.

....., Examiner
New Mexico Oil Conservation Commission