BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO JUNE 7, 1961

## EXAMINER HEARING

IN THE MATTER OF:

CASE 2299

Application of Newmont Oil Company for an amendment of Orders Nos. RlllO and R-lllO-A, Eddy County, New Mexico.

TRANSCRIPT OF HEARING

|                                    | BEFORE THE<br>OIL CONSERVATION COMMISSION<br>SAMTA FE, MEW MEXICO<br>JUNE 7, 1961  |  |
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| 16                                 | EXAMINER HEARING   |  |
| С.<br>РНОИЕ СН 3-6691              |  |  |
| Inc.                               | IN THE MATTER OF   |  |
| Y-MEIER REPORTING SERVICE, I       | CASE 2299: Application of Newmont Oil Company for an<br>amendment of Orders Nos. R-1110 and R-1110-<br>A, Eddy County, New Mexico. Applicant, in<br>the above-styled cause, seeks an amendment<br>of Orders Nos. R-1110 and R-1110-A, which<br>authorized a pilot waterflood project in<br>the Square Lake Pool, Eddy County, New Mex-<br>ico, to permit the expansion of seid water-<br>flood project to include lands in Sections<br>27, 20, 32, 33, and 34, all in Township 15<br>South, Range 31 East, Eddy County, New Mex-<br>ico, and to further define the horizontal<br>limits of said project. Applicant also<br>seeks the establishment of special rules<br>governing the expansion of said waterflood<br>and providing for capacity allowables<br>therein. |  |
| 1-3                                | Daniel S. Hutter, Examiner.  |  |
| DEARNLF<br>albuquerque, new mexico | TRANSCRIPT OF PROCEEDINGS  |  |
| UERQUE,                            | MR. MUTTER: The hearing will come to order, please. The  |  |
| ALBUQ                              | first case this afternoon will be 2299.  |  |
|                                    | MR. MORRIS: Case 2299. Application of Newmont Oil Com-   |  |
|                                    | pany for an amendment of Orders Nos. R-1110 and R-1110-A, Eddy   |  |
|                                    | County, New Mexico.  |  |

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MR. CAMPBELL: Mr. Examiner, I am Jack M. Campbell, Campbell & Russell, Roswell, New Mexico, appearing on behalf of the applicant.

MR. NUTPER: Any other appearances in Case No. 2299?

MR. HINKLE: Clarence Hinkle, Hervey, Dow & Hinkle, Roswell, appearing on behalf of Humble.

MR. MUTTER: Any others? Would you proceed, Mr. Campbell?

> (Whereupon, Newmont's Exhibits Nos. 1 through 4 were marked for identification)

MR. CAMPBELL: I have one witness.

(Witness sworn)

## HERMAN LEDBETTER,

called as a witness, having been first duly sworn on oath, testi-

fied as follows:

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q State your name, please.

A Herman Ledbetter.

G Where do you live, Mr. Ledbetter?

A Artesia, New Mexico.

S By whom are you employed and in what capacity?

A Newmont Oil Company as superintendent for their New

Mexico operation.

Q Have you previously testified before this Commission, in



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your capacity. with Newmont Oil Company?

A Yes, sir.

Q Are you acquainted with the Square Lake Pool waterflood of Newmont Oil Company?

A Yes, sir.

Q Are you acquainted with the application in Case No. 2299? A Yes, sir.

Q I hand you what has been identified as Exhibit No. 1, and ask you to state what that is.

A This map covers the eastern portion of the Square Lake oil field, and the acreage colored in yellow is the original Newmont waterflood acreage, and the acreage colored in blue-green is some additional acreage owned by Mr. Kennedy and the operations of which Newmont is going to take over.

Q It is now owned by Mr. Kennedy, is it not?

A Yes.

Q Is that area shown in blue a portion of the acreage covered by an agreement between Newmont and Mr. Kennedy?

A Yes, sir.

Referring, now, to Exhibit 1, again, is the northeast quarter of Section 32 involved in this application?

A Yes, sir.

Q Who owns that State Lease?

A Southern Petroleum.

Is there an agreement between Southern Petroleum and New-



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A Yes, sir.

Q Will you refer to Exhibit 1 and point out to the Examiner the most recent injection wells that have been added in that flood?

A The No. 3 well located in the southwest of the northeast of Section 29, 16 South, Range 31 East, the No. 6 well located in the southwest of the southeast of Section 29, same Township, and the No. 3 well located in the northeast of the northwest of Section 32 in the same Township.

Q How long have those wells be on injection?

A Approximately two months.

Q Are you experiencing any reaction from producing wells offsetting those injection wells?

A Yes. We had increases in the direction of the original pilot before these were converted, and we expect increases in the areas on the outside of these wells within the relatively near future.

Q Then, you are approaching the area involved in this application with regard to expansion of your flood, is that correct?

A Yes, sir.

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G Has the pilot area flood project proved to be feasible?A Yes.

Q What do you intend to do with regard to the expansion of this project in the event the application here is approved?

We plan to expand this waterflood to cover all of the



acreage mentioned.

Q All of that acreage outlined in dotted red line and the northeast quarter of Section 32. is that correct?

A Yes.

Q Have you entered into any agreements with the owners of the Kennedy acreage in connection with this proposed expansion?

A Yes, we have.

Q I hand you what's been identified as Newmont's Exhibit No. 2, and ask you to state what that is, please?

A This is an agreement between Newmont Oil Company and Kennedy whereby the operations of the waterflood in the area where the leases are contiguous, to be operated as a single waterflood.

Q I refer you particularly to Paragraph Roman Numeral IV on Page 3 of that agreement, and ask you to state whether the agreement provides that Newmont shall supervise the installation and operate the joint facilities, the operation of water input wells, the rate of injection of water, and other matters pertinent to the operation of the flood?

A Yes, they will.

Q Have you likewise entered into an agreement with Southern Petroleum Exploration Company, Inc. with regard to the operation of the northeast quarter of Section 32?

A Yes, we have.

Q I hand you what has been identified as Newmont's  $E_X$ hibit No. 3. I will ask you to state if that is an executed copy, a



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photostat of an executed copy of that agreement?

A Yes, it is.

Q Does that agreement likewise provide that Newmont shall be the operator of the waterflood properties of Southern Petroleum Exploration as an expansion of the Square Lake flood?

A Yes.

Q First, would you advise the Examiner, is the acreage owned by Kennedy all Federal acreage?

A Yes.

Q Has this matter been discussed with the United States Geological Survey?

A Yes, it has.

Q Have they approved the procedure --

A Yes.

Q -- and the cooperative agreement?

A Yes.

Q I hand you what has been identified as Newmont's Exhibit No. 4, and ask you to state what that is, please?

A This is a letter from the United States Geological Survey approving this agreement and cooperative flood.

Q In the event you are permitted to expand the flood in the manner in which you have requested, is it your intention to continue to conform to the Rules and Regulations of the Commission with regard to the rate of expansion?

A Yes, it is.

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Q Inasmuch as this is an expansion of an existing waterflood, are you seeking from the Commission authority to have capacity allowables on the expanded area?

A Yes.

MR. CAMPBELL: Mr. Examiner, I would like to make one correction in the application. In Paragraph III there's a typographical error, the third line, where it says "as to the east half, southwest quarter." That should be the west half of the southwest quarter.

MR. NUTTER: The west half of the southwest quarter?

MR. CAMPBELL: Right. Section 28. I would like to offer in evidence Applicant's Exhibits 1, 2, 3 and 4.

MR. NUTTER: Applicant's Exhibits 1 through 4 will be entered in evidence.

(Whereupon, Newmont's Exhibits Nos. 1 through 4 were received in evidence.)

MR. CAMPBELL: That's all the questions I have at this

time.

MR. MUTTER: Are there any questions of Mr. Ledbetter? MR. MORRIS: Yes, sir.

MR. NUTTER: Mr. Morris.

CROSS-EXAMINATION

BY MR. MORRIS:

Q Mr. Ledbetter, in Newmont's application, you asked the Commission to define the proper limits of the waterflood project.



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Do I assume that the proper limits are the acreage surrounded by the dashed red line and also the acreage owned by Southern Petroleum --

| А | Yes. |
|---|------|
|---|------|

Q -- on your Exhibit No. 1?

A Yes, in addition to the acreage colored yellow. MR. CAMPBELL: Presently.

(By Mr. Morris) You also asked us to establish Rules for the expansion of the flood within the defined area. I was wondering if you had a recommendation as to the Rules, if any, that you wish for us to adopt.

A No Rules, in addition to those defined in the Rule 701 for the capacity waterflood.

Could you tell us at this time which wells you planned to use for injection, and which are to be producing wells in the area? Is that subject to a later determination?

A We can tell you what we plan right now, of course, subject to some possible change in plans, but our plans are now to follow the five spot pattern that started with the pilot in conversion of alternate 40-acre locations, and to conform to what has been done and just carry this pattern completely out. For instance, on the Southern Petroleum acreage Nos. 2 and 4 would be injection wells, and you would just carry that same thing right on through.

Q Do you have any immediate plans, in the event this application is approved, for converting any of the wells in this extended



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area to injection, other than this No. 2 and 4 that you just mentioned?

A Of course, we feel that we'll expand this flood as allowed under the Rule 701 as quickly and feasibly as possible. Those are the only two that are likely right in the very near future; other than on the expanded area.

Mr. Ledbetter, who owns the acreage in the south half of Section 32?

A The southwest quarter is owned by Beall Trobough & Associates.

9. How about the southeast quarter?

A I'm not sure at this time. I don't believe there are any producing wells in that area.

S Do you feel that the south half of 32 will be substantially affected by your operations here?

A It appears doubtful that the southeast quarter right now will be drilled. This area has been developed for a number of years, and it hasn't been drilled to this date now. We don't know if the sand carries into that area or not there. It would be a question.

Q How about the acreage in the west half of the southwest quarter of Section 33? What's the ownership of that?

A I believe that Beall Trobough & Associates.

G Has any approach been made to Beall Trobough & Associates to come into a cooperative agreement with you?

A No, not as such. He have discussed waterflooding in this



CH 3-6691 HONE DEARNLEY-MEIER REPORTING SERVICE, Inc. ALBUQUERQUE, NEW MEXICO area with Beall Trobouch's representatives, but at this time their production is largely from new wells and not wells that would be considered for waterflood.

Mr. Ledbetter, geologically speaking, do you feel that this is an expansion of the existing flood? Is your sand even and continuous throughout this area?

A Yes. I'll say this: I'm not a geologist, but, however, as an engineer, I have studied the area, and feel that these sands definitely are in the same reservoir as the one we're flooding.

MR. MORRIS: No further questions. Thank you.

MR. HINKLE: Mr. Examiner, I have a question.

MR. NUTTER: Mr. Hinkle.

## BY MR. HINKLE:

Mr. Ledbetter, I understood you to say that you were asking for capacity allowable on your expansion of this waterflood.

A Yes.

Q On what basis do you ask for that? What are your grounds for asking for capacity allowable?

A As an expansion of a flood that was started before the Rule 701.

Is that your only basis for asking for it, simply because you got your pilot approved before Rule 701 went into effect?

A Yes.

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That's your only basis. In your original Order, which I



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believe was R-1110, and was supplemented, and by R-1110-A, did those Orders allow you capacity for your pilot flood at that time?

A I'm not sure about that.

Do you have any Order of the Commission granting you capacity allowable for the flood up to the present time, or before Rule 701 went into effect?

A No.

MR. HINKLE: That's all.

BY MR. NUTTER:

Mr.Ledbetter, this other acreage surrounding the acreage in yellow and blue and enclosed in the dotted red line, do you know of any other waterflood projects around the acreage in here?

A No definite plans. We have discussed waterflooding with all of our neighbors, but I don't know of any definite plans.

Q Well, now, does Newmont own any acreage on this plat, other than that which is colored yellow?

A Yes, they do. There's two 40's in Section 36, over in Range 30, 16 South, the southwest of the southwest, and the southwest of the northeast.

Q You are not seeking that that acreage be included in this project area?

A We don't have any plans for waterflooding that until we can work something out in this acreage.

Q Because of the detached acreage?

A Yes.

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Q You stated that the expanded flood would be a continuation of the five spot pattern. Would that mean that the Newmont No. 5 in the northeast of the southeast of 31 would be an injection well --

A Yes.

Q -- even though Western Oil Fields had not commenced a waterflood, or would you wait until Western has waterflood going on their acreage?

A Wait a minute.

Q No. 5 in the northeast of the southeast of 31. It would appear to be a continuation of the existing pattern?

A Well, of course, we have no control at this time over what Western Oil Fields will do, of course. Certainly, we would like to see them place that on injection.

Q Doesn't that yellow acreage there, that 30 acres, appear to be rather detached from the main body of the project area as you have colored it on the Exhibit?

A Yes, it is somewhat, I would say.

© Do you know of any plans which may be under way at this present time for unitization of any of the acreage shown on the plat that you have presented here?

A No. As a complete unit of royalty and working interest, and I don't know of any.

Q At any rate, Newmont isn't negotiating with anyone for the formation of the unit in the area?



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A No.

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Q First of all, are these two agreements identical, the one with Southern Petroleum and the one with Kennedy?

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Essentially, they carry out the same purpose.

Q As I understand it, this is merely an operating agreement whereby Newmont Oil Corporation, or Newmont Oil Company, excuse me, is going to be operating wells belonging to Kennedy Oil Company and to Southern Petroleum Exploration Company for a fixed amount each month, is that correct?

A Yes. In a sense, in that we will have joint facilities involved in this thing, and the operations will be carried on together.

Q Will Newmont spend any money prior to the time that Kennedy or Southern Petroleum have approved an A.F.E. that Newmont prepares, would you wait for the other companies' approval prior to spending the money?

A Well, --

MR. CAMPBELL: Mr. Examiner, we would wait for the approval under the terms of the agreement.

MR. NUTTER: I see.

Q (By Mr. Nutter) For monies that are expended on Newmont's acreage, will Kennedy or Southern Petroleum share in the expenditures of monies on Newmont's acreage?

A We're going to have a joint injection pressure and injection plan, and, as such, why, there'll be some, depending on --



and this will serve all of it, this will be shared, actually, whether it's located on whose acreage will be incidental, I think, to the actual operation.

G If you were running a water line down in the southeast area into the checkerboard area there, for example, and this water line were going to supply injection wells on both Newmont and Kennedy's acreage, I presume that Newmont and Kennedy would share in the cost of that line?

A Yes. The well is on Kennedy's acreage.

Q If a well on Newmont's acreage requires working over, will Newmont share in working that over?

A No.

Q Will any oil be credited to a lease from which it wasn't produced?

A No.

Q The two companies will keep their accounts separate as far as production is concerned?

A The oil will be kept separate at all times.

MR. NUTTER: I believe that's all.

MR. HINKLE: One or two more questions.

MR. NUTTER: Mr. Hinkle.

BY MR. HINKLE:

Q Is it your opinion, Mr. Ledbetter, that these cooperative agreements that you have entered into will protect correlative rights for all the parties?



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A Yes, sir.

Q Are you operating this property, the pilot, at the present time at capacity allowables?

A Yes, sir.

Q The production at capacity. And you have no Order from the Commission to permit that. Is that what you stated in your previous testimony?

A I believe that's right.

MR. HINKLE: That's all.

MR. NUTTER: Any further questions? The witness may be excused.

(Witness excused)

MR. CAMPBELL: I have a statement I would like to make. MR. NUTTER: Do you have any other witnesses, Mr. Campbell?

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MR. CAMPBELL: No.

MR. MUTTER: Do you have anything further in this case, Mr. Campbell?

MR. CAMPBELL: A statement, yes, please. I would like to call to the attention of the Examiner some findings that were made in Order No. E-1525, which is now essentially Rule 701 of the Commission, with regard to waterflood projects that had theretofore been authorized. I might also say parenthetically that the allowables and the producing rate and the injection rate for these existing wells in this waterflood project had been reported to the



Commission, and the allowables had been authorized by the Commission. Finding No. 7 of that Order is that the evidence presented indicates that a relatively constant project injection rate is beneficial from the standpoint of economics and operation efficiency, and convenience, and that, thus, its maximum allowable for any particular waterflood project should, insofar as possible and practicable, remain constant. Based upon that finding and with a finding in regard to the institution of facilities for project, then in existence, the Commission concluded in its Order that the allowable provisions contained in revised Rule 701 shall not apply to waterflood projects heretofore authorized by the Commission or to legitimate expansions thereof.

If there is any purpose at all for provision, and certainly there must have been, since it's based on a finding by the Commission, it would appear to me that this is the type of situation to which the Commission must have had reference. Here, for some reason, apparently, the Commission has taken the position today that the expansion must be under the same operation or by the same operator. So long as it's in the same common source of supply, I find that a little hard to understand as a distinction, but thus far the Commission has made it for that reason along with other reasons of operating efficiency. This operator has undertaken to enter into an agreement, cooperative operating agreement with the owners of small tracts of acreage in order to develop this waterflood program and project in an orderly way. For all intents and



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purposes insofar as the operations are concerned and the efficiency of the flood and the maintenance of an orderly program of development, this is exactly the same as you would have under a unit agreement, except that the sharing of the production is not exactly the same, although the acreage is esentially equal, as can be seen from It seems to me that if it is the position of the Comthe plat. mission that these expansions must be done by the same operator in order to make it a legitimate expansion of an existing project, centainly that has been complied with in this case, and that the Order out of which Rule 701 was amended seems to me, too, to apply directly to a situation of this kind. I feel, therefore, that this is a legitimate request for an expansion of a waterflood project, which was authorized by the Commission prior to the time that Rule 701 was revised in connection with its allowable provisions. Otherwise, it would seem to me that the Commission, and I don't think it's their intention to completely stifle waterflood development in the State and protect correlative rights at the same time.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 2299?

> I would like to make a statement. MR. HINKLE:

Mr. Hinkle. MR. NUTTER:

Mr. Examiner, I think the Commission well MR. HINKLE: knows the position of the Humble in regard to capacity allowables in connection with waterflood. I don't think I need to go into that any more; we have gone into it a lot. The fact that this



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pilot was approved by the Statewide Order, went into effect,701, I don't think it entitles them to an exception at this time in a capacity allowable for the expansion of that flood, particularly when the Order, which approved the flood, did not provide for capacity allowable. The Humble is not singling out this particular case, but it would be against exceptions in any case to allow exceptions to your normal Rules for allowables in connection with waterflood projects.

MR. CAMPBELL: Mr. Examiner, Mr. Kennedy is here, and I believe has a statement he would like to make.

MR. KENNEDY: Well, at this time, on behalf of Kennedy Oil, I would like to bring up the point that with Newmont being able to produce at capacity allowable, referring there again to your map with the yellow acreage in mind, we, with the checkerboard acreage, which would be the blue acreage, would be in jeopardy with them producing at capacity, and we being at provation on the blue acreage, in all fairness, that would be why I think that consideration should certainly be given to Kennedy Oil Company for capacity allowable on our acreage involved.

MR. NUTTER: Are there any further statements in Case 2299? We will take the case under advisement, and call next Case 2301.

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STATE OF NEW MEXICO ) ) ss COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Court Reporter, in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in machine shorthand and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 11th day of June, 1961, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

PUBLIC

My Commission expires: June 19, 1963

I do hereby certify that the foregoing is a couplete record of the proceedings the Examiner hearing, \_Case No heard by ne on (c Examiner Mexico Gil Conservation Commission New

