BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico August 6, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Petroleum Corporation of Texas for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

Case No. 4179

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING



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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING		
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MR. NUTTER: The first case will be Case 4179.

MR. HATCH: Case 4179. Application of Petroleum Corporation of Texas for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

MR. CAMPBELL: Mr. Examiner, I am Jack M. Campbell of Stephenson, Campbell and Olmsted, Santa Fe, New Mexico, representing the Applicant.

MR. NUTTER: Are there any other appearances in Case No. 4179?

MR. CAMPBELL: We have one witness to be sworn, Mr. Freeman.

(Witness sworn.)

KENNETH A. FREEMAN

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

DIRECT EXAMINATION

BY MR. CAMPBELL:

- Q Will you state your name, please?
- A Kenneth A. Freeman.
- Where do you live, Mr. Freeman?
- A Midland, Texas.
- Q By whom are you employed?
- A Petroleum Corporation of Texas.

- Q In what capacity?
- A District Superintendent.
- Q Have you previously testified in your professional capacity before this Commission or its Examiner?
 - A Yes, I have.
- What is your professional qualifications; are you a petroleum engineer?
- A Yes, I graduated from the University of Texas in 1958, and I am a registered professional engineer in the State of Texas.
- Q By whom were you employed when you previously testified before this Commission?
- A Union Texas Petroleum, a Division of Allied Chemical.
- MR. CAMPBELL: Are the witness' professional qualifications acceptable?

MR. NUTTER: Yes, they are.

BY MR. CAMPBELL:

- Are you acquainted with the Application of Petroleum Corporation of Texas in this Case No. 4179, Mr. Freeman?
 - A Yes, I am.
 - Q Will you state in general terms what you are

seeking here?

A We are seeking in general terms to get approval to produce formation water which is from the Grayburg-Jackson formation into an unlined earthen pit.

Q What pool?

A This is in the Grayburg-Jackson area in Eddy, County, New Mexico.

(Whereupon, Applicant's Exhibits Nos. 1 and 1-A were previously marked for identification.)

Q I hand you what has been marked as Applicant's Exhibits 1 and 1-A in this case and ask you to state what these are, please?

A Well, No. 1 is a map of the general area of Eddy County, New Mexico, primarily Section 14, Township 17, Range 30, and the circle on this map is a 3-mile radius surrounding the well in question.

Q I notice you have an arrow pointing to one well which has been colored in red. What does that indicate?

A This is the Flint "B" well which is located in Unit M of Section 14. This is the well in which we seek the exception.

Q I notice you have two other wells which are

shown in red in the vicinity of your Flint "B" Federal No. 1. What do those indicate?

A These wells are also owned by Petroleum Corporation of Texas and in making the formation record which is Exhibit 1-A, the information from all three wells as to the sample description, gamma ray neutron logs was put together in arriving at the intervals and the type of formation.

Q Referring now to Applicant's Exhibit No. 1-A, will you state what that is intended to show?

A It is our intent with 1-A to illustrate the formation, lithology, from the surface down to the top of the Gates Sand which is from surface to 1165 feet.

With the policy that the Commission has established in connection with the disposal of salt water in New Mexico, and that its purpose is to avoid the contamination of any economic fresh water supplies at depths above the producing zone. Will you state to the Examiner what steps you took to determine whether or not in your opinion the use of open earthen pits at this particular location would have that effect of contamination or whether it would not; what did you do?

A Well, the main thing we did was to look the area over as to windmills or any type of fresh water within a 3-mile area or the area in general. Now, the town of Local Hills gets their water from the Caprock Water System, and we have talked to some old-timers over there, and to their knowledge, there is no fresh water. We have driven around asking ranchers and etcetera, if there was any fresh water in the area. All we were able to come up with is the type where they make a dam to catch the rain water, but to my knowledge, there is no windmill or fresh water in the area.

Referring to your Exhibit No. 1-A which is a composite of your examination of the three wells shown in red on Exhibit No. 1, what does that reflect with regard to the presence of any water?

A Well, if you will look at the formation interval where it says "Total feet from zero to 50 feet," at the surface there is just alluviam and red bed exposed. Then we have open-hole logs that will pick up the formation from 200 foot on down and primarily exist in a vaporized series where you have anhydrite and red beds and salt sections and this primarily is shown in exhibit 1-A. As you go down the list, it is all that

we can tell that there is. There is no water sand that we were able to find in any of the logs.

Q Did you know or whether or not or is it your information that the Commission has approved the salt water disposal in this fashion, application within the 3-mile radius of your well shown on Exhibit 1?

A It is our understanding that an exception was approved in Section 1 of 17-30 to McKinley out of Roswell.

Q How much water is your well producing?

A The last three weeks we have been watching it real close. I would say 50 barrels per day.

Q How much oil?

A 35 to 36 barrels per day.

Q Has this production of water changed substantially in the last several months?

A Yes, it has. It has come up approximately $4\frac{1}{2}$ months ago. It increased and it looks like it has leveled off at this 50 barrels a day.

Q Prior to that time was there any problem in disposing of the salt water?

A Well, it made very little water; about 2 to 3 barrels a day and we were trucking it, and the expense was very minor at that point. Due to this increase, why,

this is why, and due to economics we are trying to get an exception.

Q To what do you attribute the increase?

A Well, in my opinion, it is due to some of the water fluid in the general area.

Q What is the quality of this water, if you know; what type of water is it?

A It is typical formation water produced in the Grayburg-Jackson formation. It is salt water -- produced brine water.

Q In your opinion, if you were permitted to dispose of this salt water by open earthen pits near this well, would it cause any contamination of any known fresh water supplies in the area shown on Exhibit No. 1, the 3-mile radius of your well?

A In my opinion, it would not due to the fact that to my knowledge there is no fresh water in the area.

MR. CAMPBELL: That's all the questions at this time, Mr. Examiner. I would like to offer Applicant's Exhibits 1 and 1-A in evidence.

MR. NUTTER: Applicant's Exhibits 1 and 1-A will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 and 1-A were offered and admitted in evidence.

CROSS EXAMINATION

BY MR. NUTTER:

- Q Sir, I missed your name.
- A Kenneth Freeman.
- Q Mr. Freeman, an exception was granted by the Commission to Order No. 3221 for Mr. McKinley and his lease is in the NE/4 of Section, is that correct?
 - A Yes, sir.
- Q Which would be right there on the 3-mile radius line that you have drawn?
 - A Yes, it cuts a portion of that quarter.
- Now, this Application here today is advertised for your Flint "B" Federal No. 1 which is in the SW, SW of 14, yet Petco does operate other wells in the area, is this correct?
 - A Yes, they do.
- Q What are you doing with the water that is produced on those leases?
- A We are putting it in a tank and trucking it to a disposal.

- Q Those wells are making minor amounts of water like this one formerly did?
 - A Yes, sir.
- Q Where is the nearest injection well to this producer here on your Flint Lease?
- A To my understanding, it is Well No. 10 in this Winfer Oil Company. They are the operator. You will see it would be two locations to the east. That would be the nearest injection well.
- Q So this Grayburg-Jackson unit operated by Winfer Oil is a secondary recovery unit then?
 - A Yes, sir.
- Q Are there secondary recovery operations to the west and to the south of your Flint Lease?
- A There is to the south, the one that is operated by Andarco Production Company. It is also Grayburg-Jackson flood.
- Now, this Exhibit No. 1-A that you made up showing the formation record is a composite formation record taken from the three wells?
 - A Yes, sir.
- Q And the first 50 feet would be aleuvian in in some of these wells, in an average of the wells?

A Yes, sir.

Q And there are no wells completed in the aleuvian in this area?

A No, sir.

MR. NUTTER: Are there further questions of this witness?

You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Campbell?

MR. CAMPBELL: No, Mr. Examiner, nothing further.

MR. NUTTER: Does anyone have anything they

wish to offer in Case No. 4179?

We will take the case under advisement.

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STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

COURT REPORTER

My Commission Expires April 8, 1971.

s complete record of the proceedings is the Exempt hearing of Case to 4/17 beard by se on 8-6 1969.