

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
August 5, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil & Refining  
Company for an exception to Order No.  
R-3221, as amended, Chaves County,  
New Mexico.

Case No. 4388

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 4388.

MR. HATCH: Case 4388, Application of Humble Oil & Refining Company for an exception to Order No. R-3221, as amended, Chaves County, New Mexico.

MR. HINKLE: We have one witness we would like to have sworn.

(Witness sworn.)

MR. UTZ: Appearances in the case?

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant, Cox & Eaton, Roswell, New Mexico, representing Humble Oil and Refining Company.

MR. UTZ: You may proceed.

B. K. BEVILL

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your residence and by whom you are employed.

A B. K. Bevill, Hobbs, New Mexico, Humble Oil and Refining Company.

Q Are you a petroleum engineer?

A Yes.

Q Have you testified before the Commission?

A Yes, I have.

Q And your qualifications as a petroleum engineer are on record with the Commission?

A Yes, sir.

Q Are you familiar with the application of Humble in this case?

A Yes, I am.

Q What is Humble seeking to accomplish by this application?

A Humble requests exception to Order R-3221. We seek permission to dispose of water produced in conjunction with oil or gas or both and to unline the surface pits on our Florence B. Lusk lease, DeSmet Federal and Hesse Federal lease in the Double L Queen Pool, Chaves County, New Mexico.

Q Have you prepared or has there been prepared under your direction certain exhibits for introduction in the case?

A Yes, sir.

(Whereupon Exhibits 1  
through 3 were marked  
for identification.)

Q Refer to Exhibit Number 1 and explain this to the Commission.

A Exhibit 1 is a plat of the area in question. Outlined in red are Humble's leases for which we are asking exception to Rule 3221. Now outlined in green are leases held

by other companies which already have exception to R-3221. To the north is the Double L Queen Pool and the wells to the south are in the Silimar Queen Pool. Also on this chart you will note some black checkmarks in Sections 1 and in Section 30 to the north and in Section 3 to the west. These represent windmills.

Q Have you made a personal inspection of this area?

A Yes, I have.

Q Are there any peculiarities as far as these windmills are concerned?

A Yes, sir, there are. In Section 1 and also in Section 30 to the north the windmills are used to pick up water out of pits.

Q In other words, they are not really wells?

A No, sir, they are not. The ranchers have a rather unique system here of using continuous wind power to pick up water out of pits and put it into drinking troughs for the cattle. What they actually do is dig out a big deep pit in one of the drainage draws and put a windmill on the back of it and it lifts the water out of the pit into the drainage troughs.

Q Did you take samples of the water out of these pits?

A No, sir, I didn't. The water was very foul, stagnant and I didn't think they would be of any value.

Q What about the windmills shown in Section 3?

A The windmill shown in Section 3 is a water well, is a sub-surface water well.

Q Do you have any information as to the depth of this well or the character of the water?

A Yes, sir, I talked to one of the ranch people, got his permission to get a sample out of this well and I asked him how deep it was and he said, "All I know is that it's pretty deep." Now I checked with the State Water Engineer, Mr. Wright, in Roswell, about water in this particular area. He stated that his records showed no water wells, no sub-surface water wells in Sections 6 or 7, the sections in which the leases are concerned. Now I asked him about surrounding water wells and he said his records were not up-to-date and he had no information. He did state that if there were any underground water wells in this area, they would most likely be producing from the Triassic. This would probably be the Santa Rosa, as a water producing formation.

Q And about how deep is that?

A Between two and three-hundred feet.

Q So the chances are the well in 3 is producing two or three-hundred feet?

A Very likely is.

Q What is the character of the water being produced from the well?

A It's good sweet water. I tasted it.

Q That is the only sweet water that you know of in the area?

A The rancher I talked to said that is the only sweet water well anywhere close to these leases. He has a sweet water well at his ranch house, which is about ten miles away from here. He said that all other sub-surface water wells in the area were extremely jippy.

Q Now if the application of Humble is approved, where will your disposal pits be located?

A The Lusk pit, which is the lease to the north, will be located at the battery, about 600 feet north of Well No. 2. The DeSmet pit will be located at the battery, about 300 feet southeast of Well No. 1. The Hesse Federal pit, located at the battery, about 300 feet southwest of Well No. 1.

Q What size are the pits you contemplate using?

A The pits that we are presently using are 25 by 25 standard pits which are allowed for sunk purposes only.

Q Would these be used or otherwise --

A Very likely they would have to be enlarged.

Q What quantities of water do you anticipate will be disposed of?

A At present from the Lusk lease we are producing thirty-one barrels per day, from the DeSmet Federal lease

twenty-eight barrels per day and from the Hesse Federal seventy-one barrels per day. I don't believe that we will ever go over possibly a hundred barrels for each one of these leases.

Q Have you made an analysis or has an analysis been made of the water you intend to dispose of?

A Yes, sir.

Q Refer to Exhibit 2 and explain that.

A Exhibit 2 is a water analysis of the typical water, produced water, taken from one of the leases in the Double L Pool. The one that we are particularly interested in, you will note, will be chlorides down at the bottom which is shown at 19,467, which is fairly close to saturation.

Q Like sea water? Or sea water, more or less?

Q I don't know what sea water is, but it's almost saturated.

Q Did you have an analysis made of the water in the well in Section 3 you testified to?

A Yes, I did.

Q Refer to Exhibit 3.

A Exhibit 3 is an analysis of the sample of the water that I took from the ranch water well. Incidentally, they named this water well the "Little Lucky". You will note that the chlorides here are only 106.

Q That is considered pretty good water?

A That is good water.

Q In your opinion, from the investigation you have made and all the information available, will the disposal of water as you have indicated be detrimental to any fresh water formations in the area?

A We don't believe it will.

MR. HINKLE: I would like to offer in evidence Exhibits 1 through 3.

MR. UTZ: Without objection, Exhibits 1 through 3 will be entered into the record of this case.

(Whereupon, Applicant's  
Exhibits 1 through 3  
were admitted.)

Does that complete your case?

MR. HINKLE: That's all.

CROSS EXAMINATION

BY MR. UTZ:

Q What is the surface drainage in the area?

A I haven't seen a contour map of this area, but just from looking at it and standing on the ground I am sure it comes from northeast to southwest. The cap rock actually is about six or eight miles to the east.

Q Cap rock is east in this area?



A Yes, sir, the drainage in this area runs to the river.

Q And the beds, underlying beds, in this area would probably dip the same direction?

A I presume so.

Q In your opinion then, there would be no possibility of this water contaminating the fresh water well in Section 3?

A It's our opinion it will not cause any contamination.

Q Now did you talk to the State Engineer in Roswell, you said?

A Yes, sir, by telephone.

Q Did he voice any opinion as to this?

A No, he didn't.

MR. UTZ: Any other questions of the witness?

The witness may be excused.

Statements?

The case will be taken under advisement.

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STATE OF NEW MEXICO   )  
                                   )   ss  
 COUNTY OF BERNALILLO )

I, SOVEIDA GONZALES, 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 that the same is a true and correct  
 record of the said proceedings, to the best of my knowledge,  
 skill and ability.

*Soveida Gonzales*  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Enclosed hearing of case No. 4388  
 heard by me on Aug 5, 1970  
*[Signature]*  
 New Mexico Oil Conservation Commission



# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2086 - SANTA FE

87501

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

LAND COMMISSIONER  
ALEX J. ARMijo  
MEMBER

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

August 12, 1970

Mr. Clarence Hinkle  
Hinkle, Bondurant, Cox & Eaton  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201

Re: Case No. 4388  
Order No. R-4011  
Applicant:  
Humble Oil & Refining Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC   x  

Artesia OCC   x  

Aztec OCC           

Other State Engineer Office