

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
October 23, 1968

EXAMINER HEARING

-----  
IN THE MATTER OF: )  
)  
)

Application of Tenneco Oil Company )  
for salt water disposal, Lea County, )  
New Mexico. )  
-----

Case No. 3898

BEFORE: D. S. Nutter

Transcript of Hearing

EX-100 000  
OCT 24 1968 25

MR. NUTTER: Call Case 3898.

MR. HATCH: Application of Tenneco Oil Company for salt water disposal, Lea County, New Mexico.

MR. WHITE: If the Examiner please, Charles White of White, Gilbert, Koch & Kelly, appearing on behalf of the Applicant. We have one witness to be sworn.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1, 2 and 3 marked for identification.)

HENRY NICHOLAS KNIGHT, a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Knight, will you state your full name, by whom you are employed and in what capacity?

A Henry Nicholas Knight, employed by Tenneco Oil Company as a Production Engineer in the Midland, Texas, District.

Q Have you previously testified before the New Mexico Oil Conservation Commission, or one of its Examiners?

A No, sir, I have not.

Q Will you briefly state your educational and professional background?

A I received a B. S. Degree from the University of Oklahoma in January, 1960, immediately went to work for Humble Oil and Refining Company in Oklahoma, for about three and a half years as an Engineer. I then transferred to Illinois where I worked for Humble for approximately 13 months as a Reservoir Engineer. I then came back to Oklahoma with Tenneco Oil Company where I worked for four years as a Production Engineer, and for the past five months, I have been working for Tenneco in the Midland, Texas, District, as a Production Engineer.

Q Are you familiar with the subject application?

A Yes.

MR. WHITE: Is the witness qualified?

MR. NUTTER: Yes, he is, please proceed.

Q (By Mr. White) Would you briefly state what Tenneco seeks by the subject application?

A We're asking permission to convert the Ginsberg-Federal No. 6 well to salt water disposal.

Q Would you refer to Exhibit 1 and explain the plat, please?

A Exhibit 1 is a plat showing the Ginsberg-Federal No. 6 well, located in Unit E, approximately 1980 feet from the north line and 660 feet from the west line of

Section 31, Township 25 South, Range 38 East.

Q Does it show the location of other wells in the vicinity?

A Yes, it shows the location of other wells in the vicinity and the formations from which nearby wells produce.

MR. WHITE: If the Examiner please, we inadvertently failed to show all the wells within a radius of two miles of the subject well. If we may, we would like to further supplement this exhibit by extending it out within the two mile radius. That will be sent to you immediately.

MR. NUTTER: Fine.

Q (By Mr. White) Can you state at this time the formations from which the wells within a radius of two miles from the proposed well are producing?

A Yes, they're producing from the Langlie-Mattix, the Blineberry and the Fusselman zones.

Q What is the production history of the proposed well and what is its present status?

A It's currently classified as a single zone oil well in the Langlie-Mattix pool, but it's incapable of production. This well has shown a history of steady decline and on the most recent pump test we took, we received zero oil and zero barrels of water.

Q Do you have a diagrammatic sketch of the subsurface installations?

A Yes, I do, and that's been stamped Exhibit 2, I believe.

Q Would you explain Exhibit 2?

A Exhibit 2 shows all casing strings in the well, their diameters and setting depths. We show 8 5/8ths inch casing set at 1190 feet cemented with 450 sacks, this cement was circulated to the surface. We show 5 1/2 J 55 casing set at 3257 feet, this was cemented with 150 sacks of cement. The top of that cement is calculated to be at 2300 feet. The sketch also shows the total depth of the well to be 3341 feet and the well was completed in the Langlie-Mattix zone in open hole from 3257 to 3341 feet. The sketch also shows our proposed packer setting at 3230 feet for injection purposes.

Q Will this be a plastic-coated packer?

A Yes, a plastic-coated packer, internal and external and set on plastic-coated tubing.

Q What type of packer is it, do you know?

A It will most likely be a Geiberson Shorty Tension Packer.

Q Have you had previous experience with this packer and has it proved successful?

A Yes.

Q Into what zone do you intend to inject the salt water?

A In the Langlie-Mattix zone, in the open hole portion of the well.

Q What are your anticipated volumes?

A We plan to dispose of only the water from the Ginsberg-Federal Lease, currently our production on that lease is approximately 175 barrels of water a day, however we requested, in this application, permission to dispose up to a maximum of 500 barrels a day.

Q What pressure?

A We anticipate that initially this water will be disposed of on a vacuum due to the depleted nature of the Langlie-Mattix zone; however, here again, we have requested permission to go to a maximum pressure of 1500 pounds, if necessary.

Q In your opinion, will the Langlie-Mattix be capable of taking this water?

A Yes, I have every expectation it will take this water, and most likely on a vacuum, initially. As the time goes on, perhaps we'll have to use pressure to dispose of it. One reason for this application is to gain information for

future evaluations for water injection into the Langlie-Mattix for waterflood purposes.

Q That is another reason why you want to dispose of this water into this particular formation?

A Yes, to gain information for the possibility of waterflooding the Langlie-Mattix zone.

Q Have you had this water analyzed?

A Yes, we have.

Q Is that shown on Exhibit 3?

A Yes, Exhibit 3 is a Halliburton Laboratory Report, this thing is an analysis of the Blinberry and on the report it says "Queen Waters", which Queen is a Langlie-Mattix completion, and this report shows the chloride contents to be so high as to make it unuseable for domestic purposes.

Q Do you have a log of this well?

A A log was submitted with the application.

MR. WHITE: Is that in the file there?

MR. NUTTER: Yes.

MR. WHITE: Could we have that marked, please,  
as Exhibit 4?

(Whereupon, Applicant's Exhibit  
4 marked for identification.)

Q (By Mr. White) What is significant of the log,  
what does it show?

A Well, this log shows the top of the red beds at 105 feet below which there is no fresh water. It also shows the Santa Rosa Zone developed between 300 and 530 feet, this zone containing brackish water. It shows the top of the Langlie-Mattix Zone at 3,094 feet and we set through this zone with our casing set at 3257 feet.

Q How do you plan to handle the water on the surface?

A We'll handle the water through a fiberglass line laid from the heater to the well head.

Q Do you plan to treat the water in any way?

A Treat the water we will dispose of? No, we don't anticipate it will need treatment.

Q Do you plan to load the casing tubing annulus with any inhibitor?

A Yes, the annulus will be loaded with inhibited water.

Q Do you plan to use a pressure gauge on the casing?

A Yes.

Q Was this new or old casing when it was installed?

A This casing was installed new in February, 1956.

Q In your opinion, will this downhole installation prevent this salt water from migrating into any other zone?

A Yes.



Q Will the granting of this application prevent premature abandonment of the field, in your opinion?

A Yes, it will.

MR. WHITE: At this time, we offer Exhibits 1 through 4.

MR. NUTTER: Tenneco's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Tenneco's Exhibits 1 through 4 offered and admitted in evidence.)

Q (By Mr. White) Mr. Knight, the case record shows that there's a protest filed by the surface owner, Mr. Tom Linebery. Are you familiar with that protest?

A I was made aware of it at 3:30 yesterday afternoon.

Q Mr. Linebery protested and opposed it for these following reasons: 1, that Rice Engineering Company is in the process of putting in a salt water disposal line and that this line would serve all the operators adjacent to Tenneco's lease, that the line is available to Tenneco and could serve its needs. What do you have to say in response to that, if anything?

A I was unaware that Rice was installing this system until I heard of Mr. Linebery's protest. To my knowledge, Tenneco has not been invited to join this system. Last

evening, I called my supervisor in Midland, he also was not aware of the system and was not aware of our invitation, if we have one, to join the system, and I don't know if they have the capacity to handle the water or not.

Q He also said the fewer disposal wells we have, the less chance there is of contaminating our fresh water zones. In your opinion, will this installation adequately protect the water from being contaminated in the fresh water zone?

A Yes, our installation will protect it, and I feel that with this installation, there will be no contamination from this well.

Q He also states that he feels that Tenneco's application to inject salt water into an open hole from 3258 to 3341 should not be allowed due to the fact that Rice Engineering Company has a disposal well one and three-quarters of a mile southwest of Tenneco's proposed disposal well. What do you have to say in regard to that?

A Well, we would like to inject into this open hole zone in the Langlie-Mattix Pool to evaluate future waterflood prospects for this area and as to connecting to a system, one and three-quarters miles away, this would require a cost from nine to fifteen thousand dollars, depending on the size of the line we have to lay, plus we would most likely have a

monthly handling charge for this water. We can convert this well and effect the complete installation for \$4,000.00.

Q He also states "I note the application of Tenneco that salt water will be injected through the tubing set at 3246 feet into an open hole without a packer." There will be a packer in this instance, will there not?

A The application says that there will be a packer at 3230 feet.

MR. WHITE: That concludes our direct.

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

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Knight, would you explain the coding of the wells on your Exhibit No. 1? I presume the "B" means Blineberry, and the "F", Fusselman and the "L M" would be a Langlie-Mattix?

A That is correct.

Q So this disposal well or this injection well, is the No. 6, is offset to the north, south and southeast by Langlie-Mattix producers, then, is that correct?

A That's true.

Q So you are not only disposing of the water, but you are evaluating the possibility of secondary recovery on these three offsetting Langlie-Mattix wells?

A Yes, sir.

Q Are secondary recovery operations being conducted in the Langlie-Mattix Pool at the present time?

A Not to my knowledge.

Q What has been the production to date from the subject well?

A I do not have that information available at this time, sir.

Q You said that the well had undergone a steady decline and the latest test was zero barrels of oil?

A That's true.

Q It has produced in the past, however?

A Yes, it has.

Q From the Langlie-Mattix?

A Yes, it was completed an economical producer in the Langlie-Mattix Zone.

Q Do you know the date of the completion of the well?

A February, 1956.

Q So it's about 12 years old, plus?

A Yes, sir.

Q And you stated that the annulus would be loaded with inhibited fluid and equipped with a gauge?

A Yes, sir.

MR. NUTTER: Does anyone have any other questions of Mr. Knight? He may be excused.

(Witness excused.)

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

MR. WHITE: No, sir, that's all, thank you.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3898?

MR. HOUSTON: We do, Mr. Nutter.

MR. NUTTER: State your name, please.

MR. HOUSTON: Glen Houston, Attorney, representing Mr. Tom Linebery. I would like to have Mr. Linebery sworn, please.

(Witness sworn.)

\* \* \* \* \*

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

DIRECT EXAMINATION

BY MR. HOUSTON:

Q Your name is Tom Linebery?

A It is.

Q You are the same person who filed with the Commission a written protest dated October 21, 1968?

A I am.

Q And you are the surface owner of the property which is sought to be used as a, one of the wells that is sought to be used as a salt water disposal well?

A I am.

Q Now, Mr. Linebery, you have just heard the testimony of Mr. Knight, the Production Engineer for Tenneco?

A Yes.

Q You heard him testify that he was not aware of any protest on your part until 3:30 yesterday afternoon?

A Yes, sir.

Q Did you have occasion to write a letter to Tenneco asking for information on this application?

A I did.

Q Do you recall when you wrote that letter? Was it on October 14th, 1968?

A I don't recall the date. Yes, it was, this is a copy of the letter.

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

Q Now, in that connection, Mr. Linebery, were you trying to get information so that you could evaluate your position on this, as well as secure Tenneco's cooperation in efficiently disposing of this water?

A I was.

Q Did you receive any reply to your inquiry?

A My wife is in Midland and I called last night and I had received a reply yesterday.

Q You were not able to go back to Midland?

A No.

Q And you haven't seen what reply they furnished?

A She did tell me the contents of it.

Q Would you just state briefly what you understood is in that reply?

A As I recall, the reply stated that it was now a producing oil well and I believe they even recited about how much oil and some few barrels of water per day the well is now making. I wish I had a copy of the letter, but I don't have.

MR. HOUSTON: Mr. White, does Mr. Knight have a copy of the letter which was furnished to Mr. Linebery's Midland office yesterday?

MR. KNIGHT: No, I didn't bring a copy of that letter dated October the 16th.

Q (By Mr. Houston) Now, Mr. Linebery, in your protest, you've stated that Rice Engineering Company is in the process of putting in a salt water disposal system adjacent to this property?

A They are.

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

MR. HOUSTON: I apologize to the Commission for not having copies of these exhibits. I didn't realize that Tenneco wouldn't have knowledge of this material.

MR. NUTTER: What has been identified as Linebery's Exhibit No. 2 in Case 3898 is identified as a Rice Engineering and Operating Company Map labeled "Justice S. W. D. System Line Map."

Q (By Mr. Houston) Now, Mr. Linebery, I hand you what has been marked Linebery's Exhibit No. 2 which is identified on the key as the Justice Salt Water Disposal System Line Map of Rice Engineering and Operating, Incorporated, and ask you if this is a true and correct map of the Rice Engineering Salt Water Disposal System you refer to in your letter of October 21?

A I'm sure it is. It was represented as a map of their planned system that Rice was going to install in this area when they approached me for a right of way.

Q Now then, referring to that map, it covers an area which runs from Section 16, Township 24 South, Range 37 East down to the southern extremity which is the proposed salt water disposal well, H-2, which is located in Section 2,



Township 26 South, Range 37 East, is that not true?

A Yes.

Q And it also shows all of the various and sundry operators who have joined in this salt water disposal system?

A It does.

Q Now then, referring to the notice which you received from Tenneco, as the surface owner, and the form which is identified as form C-108, of the New Mexico Oil Conservation Commission which lists the names and addresses of all operators within one-half mile of the injection well, being Ralph Lowe, Tidewater Oil Company, Gulf Oil Corporation, West States Petroleum Company and Pan American Petroleum Corporation, is it not true that all of those operators, without exception, are members of the Rice Engineer Salt Water Disposal System which you have presented to the Commission this morning?

A They are.

Q Now then, Mr. Linebery, you heard Mr. Knight testify that he had been employed by Tenneco or in the Midland Office for approximately five months. Do you know off-hand how long you have known about this proposed salt water system of Rice, has it been within five months or has it been longer than that?

A At least four or five months.

Q It has been in the planning stages, then, for a

considerable period of time?

A Yes.

Q You own other lands in this area, do you not?

A Yes.

Q Are you also a member of any Association which would give you information and knowledge of salt water disposal programs being carried on in this area?

A I am.

Q What Associations?

A Southeast Lea County Fee Land Owners Association and Lea County Farm Bureau.

Q Are you here today in your capacity as the surface owner of Section 31 only, or are you also authorized to represent either one of these Associations?

A I represent myself and the two Associations.

Q You ask that the Commission recognize you today in the individual capacity and as a representative of those two Associations?

A Yes, I do.

Q Referring to Section 6, which is the Section line immediately south of Section 31, that's the subject matter of this hearing today, is Section 6 included in the Rice Engineer Salt Water Disposal System?

A It is.

Q The operator there is Ralph Lowe?

A Ralph Lowe.

Q Are you acquainted with the surface owner of that property?

A I am.

Q Who is the surface owner of that property?

A I am.

Q You heard Mr. Knight testify according to my notes, and if I am incorrect, Mr. White, I would appreciate Mr. Knight correcting me, that logs of this well show that there are no fresh water zones below, I understood 105 feet.

MR. KNIGHT: Show the top of the red beds at the 105 feet which I'm told there is no water below that.

Q (By Mr. Houston) Mr. Linebery, you own the surface and you graze cattle on this property, do you not?

A I do.

Q Is that true, to your personal knowledge?

A That is not true.

Q Can you give us an illustration of what facts are within your personal knowledge as a rancher, and how you come to know that information?

A I have drilled a water well in the northwest quarter

of Section 31, just about right there. I got water at about 420 feet. It's quite a bit of water, it will run a drilling rig and it's at least 30 to 40 gallons a minute. That's good potable water. I also drilled a well in the northwest quarter of Section 6, and it is about 450 feet deep. It's good, potable water and I do not know the capacity but it will make 30 to 40 gallons a minute because both wells have been used to furnish a drilling rig, so we do have quite a bit of potable water there below four hundred.

Q Do you have any knowledge of anything below that, have you ever had occasion to drill any wells deeper than that?

A I have never drilled one deeper than that.

Q But the two wells you have enumerated specifically are fresh water and are below the 105 feet testified to by Tenneco's Engineering Department?

A Yes, and those wells have been drilled in, oh, about the last ten or twelve years. I have drilled them myself. In fact, Tenneco has purchased water out of one of them for drilling purposes.

Q Would that be the well in Section 31?

A Yes.

Q Now then, Mr. Linebery, from your protest, it's

obvious that you were aware and you have testified that you have been aware of it for some four or five months, of the Rice Engineer Salt Water Disposal System that is presently being constructed, as I understand it, isn't that true? Haven't the rights of way been taken on that System and are being taken?

A Yes, and I think you will notice on that map Tenneco has a battery to the west or northwest there that will be tied into this system.

Q You heard Mr. Knight testify he was not aware that this system was going in adjacent to this Section 31, did you not?

A Yes, sir.

Q Would you assume that if Tenneco had found it advisable to join in adjacent sections that they would also find it advisable to join here if they had knowledge of the System?

MR. WHITE: I object to that, it's calling for an opinion of the witness.

MR. HOUSTON: We'll withdraw the question, Mr. Nutter.

Q (By Mr. Houston) Mr. Linebery, and this will call for hearsay evidence, this is an administrative hearing and in the light of Tenneco's admission of lack of complete

knowledge, I feel that hearsay evidence rather than no knowledge should be admitted and I will ask for his hearsay evidence; possibly the Commission will want to deny it.

Mr. Linebery, you do not have direct information that Tenneco put these wells into the system's original planning, do you, you do not have direct information?

A No, I do not have direct information.

Q Have you heard anything about whether or not Tenneco has contemplated putting these wells in, and if so, what have you heard?

MR. WHITE: I object to it as based on hearsay.

MR. HOUSTON: We would ask that the Commission admit the evidence for the reason that Tenneco itself has admitted that it has knowledge of what is obvious to the Commission, is an elaborate and extensive system, and I respectfully submit that Tenneco is a member of the system and therefore must have had knowledge. So I would ask that we at least get Mr. Linebery's understanding of what applies to Section 31.

MR. WHITE: I believe the exhibit speaks for itself. The rest would be based on hearsay.

MR. NUTTER: Where is this lease of Tenneco's to the northwest, that's connected to the system?

MR. HOUSTON: It's marked in Section 35.

MR. NUTTER: It would be in the northeast quarter of Section 35?

MR. HOUSTON: Yes, sir.

MR. NUTTER: I believe the evidence will speak for itself in this case that Tenneco is aware of a salt water disposal system being installed --

MR. WHITE: We withdraw the objection.

MR. NUTTER: -- as to Section 31, the map doesn't show any lines going to Section 31, whether Tenneco is aware of it or not, we don't know, but obviously Rice isn't planning to run a line there, or they would have shown the line on the map, so I think the record speaks for itself.

MR. HOUSTON: For the purpose of a tender, then, I would like to tender the evidence as to what Mr. Linebery's information is for the purpose of the record.

MR. NUTTER: I thought you were going to withdraw your question.

MR. HOUSTON: No, he withdrew his objection.

MR. WHITE: I will withdraw it.

MR. NUTTER: Go ahead and answer the question, Mr. Linebery.

A After I got interested in this and didn't hear from

them, I called on the telephone, Mr. Goodheart, with Rice Engineering and asked him, I said, "How come that you have all the adjacent leases to Tenneco in this project and they're not in?" He said, "Well, at one time they did talk about putting it in and we thought we had it, and then they withdrew it and decided to go the other route of trying to put in their own disposal well".

Q Mr. Goodheart didn't know anything about their putting in a disposal well, did he?

A He knew only because I had told him why I was calling.

MR. WHITE: I object to it as hearsay.

A It is not hearsay because he said he had talked directly to the man about it..

Q At any rate, your understanding is that these wells were considered and it was the election of Tenneco not to go in on it?

A That's what Mr. Goodheart told me, yes.

Q Mr. Linebery, have you granted rights of way to Rice Engineering for a Salt Water Disposal System on the Lowe Section, in Section 6 and on other areas of your ranches?

A Yes, where they've asked for it.

Q Have you found their disposal system to be efficient?



A Well, I wouldn't, I'm not an expert on that, except I do know they are supposed to be experts in the disposal business and I would assume they could operate one as good or better than most operators.

Q You have heard Tenneco's testimony here this morning in complete detail, have you not?

A Yes.

Q Is it still your position and your request to the Oil Conservation Commission that their request be denied?

A It is.

Q Do you still feel that the Rice Engineering System provides a reasonable alternative to them?

MR. WHITE: I object to that, --

A I do.

MR. WHITE: -- as calling for an opinion of the witness, and he's not qualified.

Q Do you feel that the proposal of Tenneco will interfere with your use of the surface of this property for grazing purposes and uses of that type?

A I don't think it interferes with my use of the grazing, surface of the grazing as much as you take more of a chance for getting some fresh water polluted, the more of these wells we have. I certainly wouldn't think that Tenneco

would be the experts in it, Rice Engineering is.

MR. WHITE: I object to that as calling for an opinion of the witness as to evaluating Tenneco as to operation of a salt water disposal against Rice Engineering which one would be the better.

Q Would you be willing to grant rights of way across your property to permit Tenneco to tie into the Rice Engineering Salt Water Disposal System?

A Yes.

Q Mr. Linebery, do you have anything else you would like to add that I haven't inquired of?

A I don't believe I do, Mr. Houston.

MR. HOUSTON: That's all the questions I have.

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

MR. WHITE: I would like to ask him a few.

CROSS EXAMINATION

BY MR. WHITE:

Q Mr. Linebery, referring to your Exhibit No. 1, your letter of October 14, 1968, addressed to Tenneco Oil Company, that apparently, the purpose of that was to disprove or try to diminish the testimony of Mr. Knight that he knew nothing of the Rice Engineering Company's Water Disposal facilities in

this particular area, is that the purpose of that letter?

MR. HOUSTON: If it please --

MR. WHITE: Let me ask my questions --

MR. HOUSTON: May I clarify the record? The question that I asked Mr. Linebery dealt with whether or not Tenneco had knowledge of Mr. Linebery's protest or inquiry prior to 3:30 yesterday afternoon.

MR. WHITE: All right, hand me the exhibit back, please.

Q (By Mr. White) All you stated here was that "I do not choose to sign the waiver of notice appearing on your application. In regard to this matter, I would like to have some more information". Now, you didn't say that you were protesting, did you?

A No, I didn't, but you knew I hadn't signed your waiver, too.

Q We admit you didn't sign the waiver, but you didn't protest in this letter, did you?

A No, you wouldn't call that a formal protest.

Q Now as to your Justice Salt Water Disposal System which you introduced, do any of the lines extend to the area in question?

A Well, I presume there in question, that you are talking about 31?

Q That's correct.

A They come awful close to it; no, they don't come on Section 31 at all.

Q Do they come on Section 31 at all?

A No, they are north of it, south of it and west of it, awfully close.

Q You spoke about this water that you were able to get in the northwest of Section 6, that was in the Santa Rosa Sand, was it not?

A I presume it is.

Q And the witness testified that the Santa Rosa Sand extended from 300 to 550 feet, did he not? I think the record will so show. Do you know what quantities of water this Rice Engineering Company will be able to take?

A No, I don't.

Q Do you know how much water they are permitted to take?

A I do not.

Q And do you know whether or not, of your own knowledge, that they will be able to take any water from this lease, do you know of your own knowledge?

A Yes.

MR. WHITE: That's all we have.

MR. HOUSTON: Mr. Nutter, for the purposes of the record, I think this Commission can take judicial notice of the fact that Tenneco is the operator in Section 31 and Rice Engineering could not enter Section 31 without Tenneco's permission. So whether or not Rice Engineers has lines into Section 31, it's obvious they don't because Tenneco specifically has not authorized them to enter. It's obvious from the record from the testimony of Tenneco, they haven't asked Rice Engineering to enter.

MR. WHITE: I object, I don't think that the Commission can take any judicial knowledge or administrative notice of any negative evidence. There's no evidence where they did or did not request to enter into Section 31. It's only a hypothetical request of the Commission.

MR. HOUSTON: It's peculiarly within the knowledge of your clients and if your clients come in here today and don't know, then we have to assume they do.

MR. NUTTER: I think we are losing sight of one thing here. The Applicant is proposing to inject salt water into the Langlie-Mattix Producing Formations, whether the first witness is aware of any secondary recovery efforts in the Langlie-Mattix or not, it happens there are some and I think it's admirable of the Applicant to attempt to enhance the

production by the disposal of water into this formation. I look at this more as a pilot waterflood project than a disposal well, frankly, and whether the lines enter Section 31 or not is immaterial, the map speaks for itself in that regard, I think.

MR. HOUSTON: May I have permission to ask Mr. Knight a couple of questions?

MR. NUTTER: Yes, sir. Mr. Knight, you are still under oath.

\* \* \* \* \*

Henry Nicholas Knight, having been previously duly sworn, was further examined and testified as follows:

CROSS EXAMINATION

BY MR. HOUSTON:

Q Mr. Knight, I believe you said that one of the reasons that Tenneco would want to have its own disposal well rather than join the Rice Engineering System was that it would be cheaper on Tenneco?

A It would be less expense, yes, it would eliminate laying one and three-quarter miles of line.

Q That assumes that you have to lay a line all the way to the disposal well?

A I'm using Mr. Linebery's figures, one and three-

quarter miles. I was unaware -- I just became aware of this yesterday afternoon and had no information available.

Q Are you the Engineer who handles Tenneco's matters in this area or was this just assigned to you as an isolated hearing?

A The way we're split, there, it's a little hard to say. I handle the Production Operations in this area. We also have a Geological Engineer in this area, and we have Reservoir Engineers in this area.

Q You are not a Reservoir Engineer, then?

A I am working in the capacity as a Production Engineer.

Q Is this set up as primarily a method of disposing of salt water, is this your primary proposal here?

A That is the primary proposal; however, it has secondary merits also, in secondary recovery in the Langlie-Mattix zone.

Q Any time you inject in a producing zone it would have secondary merits, wouldn't it?

A If the zone is capable of accepting the water and if there is communication between the injection well and the producing well, yes.

Q You testified on Direct Examination that you were

not aware of any secondary recovery in the Langlie-Mattix, did you not?

A That is true, but in my capacity of Production Engineer, I wouldn't necessarily be familiar with that unless we had waterfloods in the Langlie-Mattix Zone.

Q My understanding as a lawyer is that there is secondary recovery in the Langlie-Mattix, the same as Mr. Nutter, but my point is that you did not enter into this with the idea of secondary recovery, but rather you've entered into it with the object of saving some money on salt water disposal?

MR. WHITE: I'll object to that, he didn't say that, he gave the two reasons why.

MR. HOUSTON: I'll withdraw the question.

Q (By Mr. Houston) How do you know it would be cheaper for Tenneco to convert this well rather than join the unit's salt water disposal system?

A It's just a matter of mathematics and the cost of labor and equipment. It's cheaper to plastic coat 3200 feet of tubing and 1200 feet of line than it is to lay one and three-quarter miles of line.

Q Referring to Linebery's Exhibit No. 2, you looked at it a moment ago, did you not?



A I am not sure what you are calling No. 2 -- the map, yes.

Q Can you now see that it would not be necessary to lay your independent line necessarily all the way from your production to the disposal well? Wouldn't it be true you could probably lay as little as a quarter of a mile?

A No, I don't believe a quarter of a mile. Our tank battery is located in the south portion of the northwest quarter of 31, it would be about a quarter of a mile over to the line and another quarter of a mile, it would probably be 4,000 feet just from looking at this map. However, that's not really the key to the question here, as to how many feet. If you enter Rice Engineering System, they charge you proportionately, per completion. We have seven wells on this lease, eleven completions, and assuming they would charge between a thousand and \$1200.00 for a completion to connect us, it would be more expensive to go that way, plus they would charge us a monthly handling charge.

Q That's on a cost plus basis, isn't it?

A I am not that familiar with it. I am familiar with the installation above, the Moseley and the Federal 35 leases which are connected to the Justice Salt Water Disposal System. I wasn't aware the system came that far south. I

believe the cost there was \$1100.00 per completion for us to join the system. I'm not sure of that number, I speak it from memory.

Q Do you know within your organization who would have made the decision not to put these wells in the system?

A The Justice Salt Water Disposal System has been knocking around for over a year and I imagine that decision was probably made the early part of this year, maybe late in '67, by our Reservoir Engineers who wanted secondary recovery information on this lease.

Q That's a supposition on your part?

A That's a supposition on my part if we were even contacted about it at the beginning.

Q You have no knowledge of even being contacted?

A No, I don't, and I also called my superior last night who also did not know. I called him at his home and he didn't have access to his files to look up.

Q Who is your superior?

A Mr. Jim Carnes.

Q And you are a Production Engineer and not a Reservoir Engineer?

A I am currently employed as a Production Engineer; I have been employed for nearly four years by Humble as a

Reservoir Engineer.

Q You stated that the Well No. 6 was incapable of producing and Mr. Linebery has been told that the letter received in his Midland Office yesterday said that the well was producing. Would you give us the production of Well No. 6 for the month of August?

A I wrote that letter to Mr. Linebery myself and it was mailed the 16th. The production for the Linebery No. 6 for the month of August was zero due to the fact it was tested around the middle of July and made no fluid and was temporarily shut down.

Q What was the production for the month of June?

A I don't have that information available at this time.

Q You have no production information whatsoever, then, other than that you got a zero test?

A Not with me. The information is available in my Midland office. Had I known this opposition would be here, I could have supplied that information.

Q Well, you were asked by the Examiner as to the cumulative production and you don't have that either, do you?

A No, sir.

MR. HOUSTON: I have no further questions.

MR. WHITE: I have just one question.

MR. NUTTER: Of which witness?

MR. WHITE: Of my witness.

REDIRECT EXAMINATION

BY MR. WHITE:

Q Referring to Exhibit 2 --

MR. HOUSTON: Linebery's Exhibit 2?

Q -- Linebery's Exhibit 2 shows that Tenneco is hooked up with this Justice Water System in Section 35. Are you familiar with that set-up?

A Yes, I am.

Q But you are not familiar with this system being extended over to the area in question?

A No, I was not aware. I don't know as I have seen this map before. Our participation in the Federal Justice Salt Water System with our Federal 35 Lease was determined before I came to the Midland District.

MR. WHITE: That's all.

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

MR. HOUSTON: I don't have a question, but I would like to point out to the Commission that there are other leases within the Justice Salt Water Disposal System belonging

to Tenneco which are tied into this system, to-wit: The Tenneco Lease in Section 34, 24 South, 37 East, that I see off-hand.

MR. KNIGHT: I'm not familiar with that lease at all. It has no lease name on it, only designates Tenneco as operator; there's the name Moseley. I previously said the Moseley and Federal 35 were tied to this system, yes.

MR. NUTTER: If there are no further questions of Mr. Knight, he may be excused. Are there any questions of Mr. Linebery? He may be excused.

(Witnesses excused.)

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

MR. HOUSTON: Only one thing, Mr. Nutter, and I am neither a Production Engineer nor a Reservoir Engineer, as it's quite obvious from my stumbling and bumbling. However, it is Mr. Linebery's position and the Grazers Association's position that we should have a uniform and orderly development of salt water disposal. In that connection we wholly support the activities of the New Mexico Oil and Gas Conservation Commission and of the oil operators in trying to properly dispose of salt water. I do not feel that this particular Tenneco lease should be segregated out of what is obviously a uniform plan of

disposal in the whole area merely because of the possible saving of a relatively small amount of money, the possible gleaning of some information which may complement a waterflood, nor any of the other secondary reasons. Now, I am confident that Mr. Linebery's information is correct, that Tenneco was aware of this opportunity and that for reasons of economy, frankly, they chose not to join the system. They did join the system where they didn't have too many wells, but we respectfully request the Commission to keep a tight rein on the salt water disposal activities in this area and where there is a cooperative system between dozens of companies, including the company that's the subject here today, we respectfully request that the application be denied because it can join the Rice System. We appreciate your indulgence and your time.

MR. NUTTER: Thank you, Mr. Houston. Do you have anything, Mr. White?

MR. WHITE: Just one brief statement. The Commission has a right to force pool production of oil, but I seriously doubt if the Commission could force an oil operator to dispose of his salt water as they suggest, in the alternative of what the operator presents here today. I don't think the Commission has the authority to force him to tie into that

line. Thank you.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3898? We will take the case under advisement.

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 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 29th day of October, 1968.

---

Ada Dearnley

I do hereby certify that the foregoing is a true and correct copy of the transcript of the proceedings before the New Mexico Oil Conservation Commission, as reported by me and that the same is a true and correct record to the best of my knowledge, skill and ability.

---

New Mexico Oil Conservation Commission

I N D E X

WITNESS	PAGE
<u>HENRY NICHOLAS KNIGHT</u>	
Direct Examination by Mr. White	2
Cross Examination by Mr. Nutter	11
Cross Examination by Mr. Houston	30
Redirect Examination by Mr. White	36

TOM LINEBERY

Direct Examination by Mr. Houston	13
Cross Examination by Mr. White	26

E X H I B I T S

	Marked	Admitted
Tenneco's 1, 2 and 3	2	9
Tenneco's 4	7	9
Linebery's 1	14	39
Linebery's 2	16	39