STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

19 June 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Ray Westall for an exception to Order No. R-3221, Eddy County, New Mexico.

CASE 8629 & 8630

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Jeff Taylor
Counsel for the Division
Oil Conservation Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: James T. Jennings
Attorney at Law
JENNINGS & CHRISTY
P. O. Box 1180
Roswell, New Mexico 88201

I N D E X

E X H I B I T S

MR. STOGNER: Call next Case Number 8629.

MR. TAYLOR: The application of Ray Westall for an exception to Order R-3221, Eddy County, New Mexico.

MR. JENNINGS: I'm James T. Jennings, Jennings and Christy, Roswell, and appearing upon behalf of Ray Westall, and at this time I'd like for the Commission in the interest of expediting the hearing and of time, to let us present both Cases 20 -- or 8629 and 8630 at the same time.

They're on the same area, same questions, and the only difference is they're about six miles apart.

If that's satisfactory, I'll proceed.

MR. STOGNER: At this time we'll call Case Number 8630, which is the application of Ray Westall for and exception to Order Number R-3221, Eddy County, New Mexico.

These cases will be consolidated for purposes of testimony.

Mr. Jennings, you wish to also enter an appearance in that case, also?

MR. JENNINGS: Yes, sir.

MR. STOGNER: Are there any other appearances in either one of these matters? Or both?

There being none will the witnesses please stand and be sworn in.

MR. JENNINGS: Mr. Westall and Mr. Nutter.

(Witnesses sworn.)

MR. JENNINGS: Will it be satisfactory for Mr. Westall to remain where he is?

MR. STOGNER: I have no objections to that.

RAY WESTALL,

being called as a witness and being duly sworn upon his oath, testfied as follows, to-wit:

DIRECT EXAMINATION

BY MR. JENNINGS:

Q Would you state your name, place of residence, and occupation, please, sir?

A Ray Westall. I'm an independent oil producer; live in Loco Hills, New Mexico.

Q Mr. Westall, how long have you lived in Loco Hills?

A Off and on for 39 years.

Q How many wells do you operate in the Loco Hills area?

A I operate, oh, between 90 and 100.

Q Are you familiar with the application which has been filed here in connection with Case 8629 and 8630?

A Yes, sir, it's for an exception to Rule R-3221, the no-pit order.

Q Did you operate the leases which are subject to these cases, one lease being in Section 20 and 21, Township 19 South, Range 30 East, and the others in the west half east half and west half of Section 35, Township 18 South, Range 30 East?

A Yes, sir.

Q Basically, referring first to the -- what is known as the Ritz Lease, which is in Section 35, 18, 30, would you review the production in the west half of the east half of this section?

A Out of those four wells we're producing between 24 and --between 22 and 25 barrels of oil per day, making approximately 120 to 140 barrels of water per day.

Q I hand you what has been marked Exhibit

One and ask you if that indicates the location of the wells and the acreage in question in yellow.

A Yes, it does.

Q How much water are you making from these wells?

A Approximately between 120 and 140 barrels per day.

Q Now, I notice on this plat that the west half if also colored in yellow. Do you have a plan for development of the west half of Section 35?

A Yes, sir, we've purchased that and at the present have an application in to drill a well in the west half of 35.

Q That's to be known as the Trigg No. 1?

A Yes, sir.

Q Do you have any plans -- or do you have any present means of disposing of the water which you are producing from the four wells in Section 35?

A No, sir, not at the present.

Q What are you doing with the water?

A We've been pitting the water there.

Q Is -- I think you testified it was approximately 115 barrels per day?

A Yes, sir.

Q Do you have any idea about the future of

this water? Do you think it will increase or decrease?

A I would say it would probably increase as we have fluids offsetting on both sides.

Q All the leases in question are Federal leases, are they not?

A Yes, sir, they are.

Q Now, would you refer to what's been marked Exhibit Two and indicate the wells located thereon which is Section 20 and 21 in 19, 31, indicate the wells that are located thereon.

A Okay. In Section 21 there we have Amoco 1, 2, 3, 4, 5, and 6; the Hill 1 and 2 and the Texax Crude 1, plus we have Parsley No. 1 in Section 20.

Q How much -- what is the production from these wells? First give us the oil and then the water.

A The Parsley No. 1 makes approximately 15 barrels of oil and 20 barrels of water.

The Texas Crude No. 1 makes 15 barrels of oil and 20 barrels of water.

The Amoco 1, 2, 3, 4, 5, and 6 make about 120 barrels of oil and about 200 barrels of water, and the Hill 1 and 2 make around 20 barrels of oil and 30 barrels of water.

Q And what are you -- how are you presently handling the disposal of these wells?

A At the present we have Wells 2, 4, and 5 shut in because we cannot handle water and we're just producing 1, 3, and 6 on the Amoco leases and we're hauling that water. We're hauling the water on that partially in the Texas Crude and also on the Hill 1 and 2.

Q How long of a haul do you have with the water?

A It's approximately 25 miles.

Q Roughly how much does it cost you per barrel to haul the water and dispose of it?

A From $1.25 to $1.50.

Q You said you shut in three of the wells. Was that becaused it's no longer economical to produce the wells?

A Yes, sir.

Q Do you have any feeling as to whether the water production from these wells will increase or decrease in the future?

A It probably -- in the future we have had plans in putting a flood in here to that we can re-inject the water, although at the present time it seems to be stabilized.

Q I believe in this application, these applications, Mr. Westall, you are seeking Permission to dispose of this water into unlined pits.

A Yes, sir.

Q Do you know of any fresh water that's within the area any place?

A Not within a mile radius.

Q That's potable water.

A Potable water, right.

Q Is there any water in the area, any potable water in the area that you believe would be in any way affected by disposal of the water in these pits?

A No, sir.

MR. STOGNER: Excuse me, Mr. Jennings.

MR. JENNINGS: Yes, sir.

MR. STOGNER: It is 8:29. Mr. Biderman, Mr. Nutter's -- I mean Mr. Stamets' supervisor has called a Bureau Chiefs' meeting at this time. I must attend that so I'm going to call a five minute recess. It shouldn't take any longer than that.

(Thereupon a recess was taken.)

MR. JENNINGS: Mr. Examiner, shall I proceed?

MR. STOGNER: This hearing will resume to order.

I apologize for the delay. Let's continue, Mr. Jennings.

Q Mr. Westall, what is the source of fresh water for ranchers and others using fresh water in this area?

A The main source is the potash mine fresh water pipelines that run through there.

Q Generally the ranchers use that?

A Yes, they do.

Q In your experience in the area do you feel that the disposal of water in the pits will provide a safe and economical manner of disposal which will not endanger any fresh water in the area?

A Yes, sir.

Q Do you have anything else you wish to add, Mr. Westall?

A Not right now, I don't.

MR. JENNINGS: That's all.

MR. STOGNER: Thank you, Mr. Jennings. I have no questions for Mr. Ray Westall at this time.

Are there any other questions of the witness?

If not, he may be excused but we may recall you, Mr. Westall.

DANIEL S. NUTTER,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. JENNINGS:

Q Would you state your name and place of residence, please, sir.

A My name is Dan Nutter. I live in Santa Fe, New Mexico.

Q And what is your occupation?

A I'm a consultant in charge of engineering.

Q And how long have you been engaged in this?

A I've been engaged in the consulting practice two and a half years.

MR. JENNINGS: Does the examiner wish me to further qualify Mr. Nutter or are his qualifications accepted?

MR. STOGNER: Since he has appeared as a witness before, his qualifications are so accepted.

Q Mr. Nutter, would you please refer to

what we have marked as Exhibit One and just identify and discuss that?

A Exhibit Number One, as discussed by Mr. Westall, is a plat of the area in Section 35, Township 18 South, Range 30 East.

The west half of the east half is the Westall Ritz Lease and it has four wells on it. Starting from the bottom there's the 1, 2, 3, and 4, going north.

To the west is the west half of the section which is another lease, and it had been intended to call this the Ritz Lease, also, when it was obtained recently, and the proposed first well on there would be the Ritz Well No. 5; however, it has been determined that it would be better to call this the Trigg Lease, so that will not be Well -- Ritz Well No. 5. It will be Trigg Well No. 1, so on your exhibit, Mr. Examiner, if you'd scratch out the "5" and make a "1" there, that would be the proposed location.

There are two pits on the Ritz Lease, one down near Well No. 1 in the southwest quarter of the southeast quarter of Section 35, and one to the northeast of Well No. 3 in the southwest quarter of the northeast quarter of Section 35.

A proposed pit would also be located over near the Trigg Well No. 1.

Q Mr. Nutter, would you now refer to what has been marked Exhibit Two and tell us what that is and discuss it, please.

A Exhibit Two is the area of Sections 20 and 21, Township 19 South, Range 31 East.

There are a number of Westall leases here.

In Section 20, the northeast quarter of the northeast quarter is the Parsley Lease. There's one well on that lease and a proposed pit at that location.

The east half of the northeast quarter of Section 21 is the Westall Hill Federal Lease, an 80-acre lease which has two wells on it, and there's one proposed pit on that lease nearby to Well No. 1 in the southeast quarter of the northeast quarter.

The three 80-acre tracts, being the west half of the northeast quarter and the east half and west half of the northwest quarter are the Amoco Federal and Amoco Leases, and there are six wells on those leases.

There are also two proposed pits on those leases, being in the southwest quarter of the northwest quarter by Well No. 1 and the southeast quarter of the northwest quarter of Section 21, being near Well No. 2, Amoco Federal No. 2.

Also in the north half of the southeast

quarter of Section 21 is the Texas Crude Federal Lease. There's one well on that in the northwest quarter of the southeast quarter and there is a proposed pit alongside of that well.

There's a proposed Well No. 2 in the northeast quarter of the southeast quarter.

Now it's my understanding that these pits were there at one time and used when water production was at a minimum and could be tolerated under the Division's rules; however, those pits have been covered up at the present time and would simply be reopened upon approval of this application by the Division.

MR. TAYLOR: Mr. Nutter, do you have another copy of Exhibit One?

A I'll give you this -- okay, you gave him one?

MR. TAYLOR: On Exhibit One are the pits shown by the squares?

A Yes. The red squares are the pits, and while those pits on Exhibit Number Two are shown in -- as solid red squares, they are not in existence at the present time and they really technically should have been shown as open red squares, because they would be -- they're proposed at this time, they're not in existence.

Now, on the Exhibit Number One, the two

pits on the Ritz Lease are in existence.

The proposed pit over on the Trigg Lease in the west half is a proposed pit.

MR. TAYLOR: Thank you.

Q Mr. Nutter, would you now refer to what has been marked as Exhibit Three and tell what that is and explain it, please, sir?

A Exhibit Three is an exhibit which is a tabulation of exceptions to the Division's Order Number R-3221 in this area. I researched the Commission's records and found that this number of exceptions have been granted.

In addition to that, there has been a large exception granted to the south of the immediate area which is under R-3221-B, which was an exemption of a large area. We will discuss that when we get to Exhibit Four.

You'll note that there were a plethora of exceptions during the late 1969's and early 70's. At that time it was a short time after the establishment of the no-pit order and being in the immediate vicinity of the exempted area, a number of operators asked for and did receive approval for the exceptions to R-3221.

The exceptions have dwindled down to just a few since that time because most of the producing leases are either underactive waterfloods and the produced water is being reinjected, or exceptions have already been obtained.

The last one of note is Cavalcade Oil Corporation, which got an exception in Section 33, Township 18 South, Range 30 East, on April 30th, 1981. That's the last exception in this area, which , incidentally, is just a mile or so away from one of our applications today.

Q Mr. Nutter, would you now refer to what has been marked as Exhibit Four?

A Exhibit Four is the large map, Mr. Examiner, and I'm sorry I don't have another copy.

Mr. Baca, if you can get over there closer you can follow this with Mr. Stogner.

Shown on this exhibit, the large yellow area is the area which was exempted by Order Number R-3221.

This is part of the Nash Draw/Clayton Basin exempted area, which is the potash, the active potash mining area.

If you'll notice over in the northwest portion of the big yellow colored area, there is a mining establishment in Sections 9 and 10. That is the Amax Mine and Plant.

If you come further south you'll see down in Sections -- Section 4 of Township 20 South, Range 30 East, is the Potash Company of America plant, and all the tailings plant piles and the ponds and the pits in association with that mine are also shown on this exhibit.

Over to the east side of the exhibit is Laguna Plata, which is a salt lake, and that was granted an exception to the rules under Order No. R-3725. The number in the parentheses, (3), indicates the number as it -- of the exception on the tabulation, Exhibit Number Three. That's true in all of these other cases on this exhibit. There are two numbers given for each of these colored areas which are outlined in green, and those would be in parentheses the number on the Exhibit Number Three and then the order number which was entered.

Exhibit Number Three, of course, gives the order number, the date that that order was entered and the description of the area which was excepted from the disposal order.

You'll see that in Section 35 of Township 18 South, Range 30 East, we have a green area outlined which has not been colored yellow. What we're seeking here today is to see that this area would be colored yellow in accordance with the other exceptions in the area.

This is our proposal, those two pits that are on the Ritz Lease are shown, as is that proposed pit in the west half, which would be adjacent to the proposed Trigg Well No. 1.

If you go down into Sections 20 and 21 of Township 19 South, Range 31 East, you'll see our proposed

order, our proposed exception, which would be for the Parsley Lease in the northeast northeast of Section 20; the Amoco leases, which are the three 80-acre tracts in Section 21; the Hill Federal Lease, which is the east half of the northeast quarter of Section 21; and the Texas Crude Federal Lease, which is the north half of the southeast quarter of Section 21.

Also on this map you'll notice that there's a dotted line which starts in the extreme upper righthand corner of the map in Section 16. You'll see that dotted line running in a west/southwest direction and it comes across those little yellow excepted areas and ends up down at the Amax Plant in Sections 9 and 10.

That is the fresh water line which many of hte ranchers are tapped into and use the water for stock and domestic purposes.

It's easy to see on this map the outline of the Clayton Basin because of the terrain.

Now to understand what has occurred here, we've got to review what caused the Clayton Basin and the Nash Draw.

The Rustler formation immediately overlies the Salado formation, the salt, and there was a natural flow of water through the basal Rustler formation eons ago. As this flow occurred through the Rustler formation it

eroded the top of the salt and created a void there, which the upper formations then collapsed into.

So the salt contours, the contours on the top of the salt would conform quite closely to the contours of the surface of the land here, and you can see the channel coming down through here that's in the salt and it is reflected on the surface of the land.

The application in Section 35 is right in the depression between Loco Hills and Nimenim Ridge.

There is a flow of water through this area which is bounded on the right by the hackberry Hills in the east half of section -- of Township 19 South, Range 30 East. You can see the close contours there where the Hackberry Hills come up there.

And over to the west side of the -- of the canyon there's a flow of water that comes down from the Amax Plant through the draw there and into the lower portion of the Clayton Basin, which then flows on into Nash Draw further to the south and southwest.

I believe that's all that I have at this time on Section 4 -- on Exhibit Number Four.

Q Mr. Nutter, again referring to Exhibits Three and Four, you've shown all the areas where the applications have been approved?

A Yes, sir. All of the applications that

have been approved and are listed on Exhibit Number Three are shown on Exhibit Number Four.

Q Have you made any inquiries to determine whether any applications have been denied?

A Yes, I have, and there are two exceptions to the Commission's Orders which were denied.

If you'll look at the group of wells -- of exceptions in the upper lefthand corner, that would be numbers, starting from the top, Number (18), (17), 15, 16, 14, and that's all.

Those were originally denied and you'll note that the order that approved them has an "A" on it because the operator in those cases came in and did not put on a very comprehensive case and the Examiner denied the application for the exceptions to the no-pit order.

Subsequently the operator came back at a de novo hearing and did obtain approval for the exceptions.

So those are indicated by an "A" number. The Number 25 there, which was R-6621, which is the south half of the -- the north half of the southwest quarter was a separate exception. I believe that was the last one that we had on our list. Yes, that was the Cavalcade application, which was the last one.

Now there was also another application which was denied, and it covered a rather large area in --

portions of it were in Section 35 where we've got Case 8629 today.

It was also in Section 26. It was also in Section 34, and 25, I believe, to the east, and maybe on up into Section 24 to the north.

And that was denied. Now the reason that that was denied was that the -- I've examined the record in that case and they found that there was a fresh water well which would have been endangered by the disposal of water into one of the pits that had been proposed in that case.

That case, by the way, was --

Q Isn't that a Hanson Oil case?

A That was Hanson Oil Company, yes, sir, and I've got the case number so the Examiner can look it up. This is Case Number 4710 and it was heard May the 5th, 1972, and the application was for areas in Section 24, 25, 26, 35, and also Section 34 of Township 18 South, Range 34 East.

It was a large application covering a great deal of area and the examiner noted that there was a fresh water well, you see in Section 26, do you see in the southeast quarter that little blue circle there, Mr. Examiner?

MR. STOGNER: Yes, sir, I show it to be a black one in the southeast quarter.

A Well, there's also a blue circle there if

you'll look closely.

MR. STOGNER: Oh, yeah, I see it.

A There's a little, tiny lake there and the rancher had a windmill right there next to that little lake. It's some kind of a sink there -- and 560 feet north of that windmill and that well that had proposed to put a -- they had proposed to put a pit in right here and the examiner was perturbed by the existance of that pit so close to that fresh water well and he made a recommendation that the entire application be thrown out, so it was denied.

It was fully expected at the time, as I recall that they, that the operator would come back in and eliminate that one pit and probably his entire application would have been eligible for approval; however, he never came back. He trucked the water out and since then has -- is not operating Section 35. We're operating Section 35 at this time and are here today seeking an exception.

So those are the only two applications -- that was a group of applications over to the west there, and then the application in Section 26, those are the only two in this area that's shown on this map that were denied, to my knowledge.

Q Mr. Nutter, would you now refer to what has been marked Exhibit A and tell what it is and what it

reflects?

A Exhibit what, sir?

Q Exhibit Five, I'm sorry, sir.

A Exhibit Five is a copy of Plate IV, a portion of Plate IV, Groundwater Report Three for Eddy County, New Mexico, put out by the New Mexico Bureau of Mines.

Colored in yellow on this exhibit is, the large area is the exemption granted by R-3221-B, which was the big colored area on Exhibit Number Four.

We've also colored in yellow the exceptions we're seeking in Section 35 of Township 18 South, Range 30 East, and in Sections 20 and 21 of Towship 19 South, Range 31 East.

The reason I'm showing this exhibit is because when this groundwater report was issued the wells that are shown on here were the wells that were in existence at the time, I presume; at least they were the wells that were studied to make the report, and you'll note there aren't any wells in Township 18 South, Range 35 -- 30 East for your application in Case 8629.

Now if you come down into Township 19 South, Range 31 East, you'll see that there were two wells shown at that time.

The first well was in Section 28 and

shows a depth to the water of 180 feet with a question mark after it, and no depth for the well.

In Section 33 immediately south, there's another well shown which has a depth to water of 101 feet and a total depth at the well of 160 feet.

Those are the only two wells that were in the immediate vicinity of our applications that we've got today.

All the other wells are either farther to the west away from this drainage area or a few wells to the north, the far north, or in the south in the exempted area.

Q Mr. Examiner, would you now refer to -- or Mr. Nutter, would you now refer to what has been marked Exhibit Six and identify that and tell what it reflects?

A Okay, this is a portion of Plate III of Groundwater Report Number Three, that I just referred to.

Again, the yellow colored areas are the same, being the big exempted area and the two areas that we're seeking exemptions for today; however, this plat, or plate in the book is entitled The General Direction of Movement of Groundwater in Eddy County, New Mexico and as stated in the report, the ground movement -- groundwater movement in this area is to the south and to the west. It comes down through Clayton Basin and into Nash Draw to the southwest.

Now all of the arrows that are shown on

there as solid arrows are the arrows as taken from the plate in the book. It's a duplicate of it; however I have added two arrows, which are the dashed arrows, and you'll note that the one in Section 35 of 18 South, 30 East, simply shows the movement of groundwater in the depression between Loco Hills and Nimenim Ridge, and it's a dashed line moving to the south down into Clayton Basin.

Over to the southeast we have the dashed arrow coming off of the exceptions we're seeking in Township 19 South, Range 31 East, and this water would be -- this movement would be to the west. It would be down the ridge and into the Clayton Basin there.

Q Mr. Nutter, what conclusions have you drawn from your study of these two exhibits?

A Well, I would say studying these two exhibits that there isn't any indication that any fresh water wells that are in existence in this area at the time this report was written, at any rate, would be endangered.

Q Is there any -- when was this report made?

A This is an old report. I don't know the exact date on it. I believe it was back in the late forties, '47 or '48, I think. It may have been in the early fifties.

Q Is there any data that you're aware of

that has been acquired since that date?

A Oh, yes. Now I've researched the records of the State Engineer's office and I have found certain wells which were apparently drilled after the report.

Now these wells are shown on Exhibit Number Four and they're located as follows:

If you come into Township 18 South, Range 30 East, in Section 21 you'll see a little black circle there. That is a well that's in existence at the present time on the State Engineer reports.

If you come into Section 22 you'll see two wells up there in the northeast quarter of Section 22.

If you come into Section 26 you'll see the well which is the black circle and it is immediately north of the little blue lake.

Then if you come back over into Section 32 to the west, you'll see immediately to the northwest of the number 32 in the center of the section, right in that depression there, there's another well.

Now these wells that are drilled in these depressions for the most part are not deep wells. They're simply wells to tap the supply of rainwater that accumulates in these lakes and after the rainwater has all soaked into the lake they have -- they sink a windmill as close to the lake as possible and they can produce a little bit more

water out of that before the sand beneath the lakebeds completey dry up.

That's what those lakes are -- or those wells are in those lakebeds.

Now if you go over into Township 18 South, Range 31 East, in Section 35, in the middle of that large excepted area, there's a well there which is now abandoned. It's not producing any more but it was listed on the current State Engineer reports.

Then if you come south in Section 27 in the northwest quarter of the northeast quarter of Section 27 of Township 19 South, Range 31 East there is another water well that's currently shown on the State Engineer reports.

The State Engineer reports show the well in Section 28 which was -- I don't know if it's the same well or not; apparently it is the same well that was the well in Section 28 that was shown on Exhibit Number Five. Remember there was one in Section 28 and also one in Section 33 immediately to the south.

So the State Engineer current reports show the well in Section 28 but they don't show the well in Section 33, so I presume it's been abandoned.

And then over in Section 31 of Township 19 South, Range 31 East there's a Hackberry Unit Well which was drilled by an oil company to a depth of over 4000 feet

and it was a dry hole and it was subsequently turned over to the Bureau of Reclamation, and that well is not produced. It's used as a water level study well by the U. S. Bureau of Reclamation.

So that well is shown there with a black circle in Section 31. You've got a well file on that well in your files, Mr. Examiner.

Q That's a real deep well, is it not?

A That's a very deep well. It's over 4000 feet.

And those are the only wells that the State Engineer reports currently show in this area.

Q Mr. Nutter, does the existence of these wells affect your opinion as to the reasonableness of the application made?

A No, not at all, because if you go up to our application in Section 35 of 18, 30, you'll see that while there are two, three, four, five wells in that township, they're all to the north of the area that we've requested the exception to, so the natural drainage from the pits would be to the south and would not affect those wells in any manner.

Now if you come over to the application that we've got in Sections 20 and 21 of Township 19 South, Range 31 East and study the contour maps, you'll see that

the contours go to the west.

Now while there is a well shown down there in Section 25, by the -- by the Hackberry Lake, this is in the excepted area and there's active oil fields all through here.

As a matter of fact, Gulf Oil is operating floods and there are a number of other wells operated by other operators in Section 25, 24, 36, and I believe also over into Section 26, and of course, this is in the exempted area so pits are used in that area.

So while the flow would be from the -- would be down structure from the exceptions in Section 20 and 21, it wouldn't be in any way endangering to the wells in the -- the water well in Section 25 because it's right in the excepted area where there's disposal into pits, anyway.

And as I mentioned before, the water from the Amax Plant runs right down through this channel and into the Clayton Basin and Nash Draw.

So I don't foresee any endanger -- and I can't find any records of that well being produced, anyway.

So in my opinion there's no fresh water wells anywhere here that would be endangered. The flow into the -- the flow from the pits if there was natural underground flow, the flow from the pits in Sections 20 and 21 would not go south towards the James -- towards the Lusk

Ranch Well in Section 28 to the south because it would have to go up hill to go there, so the flow would be to the west down the -- it would, as I mentioned before, the -- the underlying beds conform to the surface topography and the flow would be not only on the surface to the west but underground would also be to the west.

It would not go toward that Lusk Ranch well in Section 28.

Q Mr. Nutter, would the approval of these applications be in the interest of conservation and prevent waste?

A Well, it would most likely, because if you can reduce the operating costs you can produce the wells to a further economic limit, and this should result in additional recovery of hydrocarbons that wouldn't otherwise be recovered.

Q Would the approval of such applications impair the correlative rights of any parties in the area?

A No, they would impair no correlative rights.

Q In your considered opinion would the approval of these applications pose a hazard to fresh groundwaters in the area?

A I've made an honest, what I think is an honest appraisal of these applications and I do not think it imposes a hazard to any fresh waters in the area.

Q Mr. Nutter, were Exhibits One through Six prepared by you or under your supervision?

A Yes, they were.

MR. JENNINGS: We pass the witness for cross examination.

CROSS EXAMINATION

BY. MR. STOGNER:

Q Mr. Nutter, on Exhibit Number Four you talked about the Hampton Oil Company application that was denied --

A Yes.

Q -- Case Number 4710, due to the little lake that had the windmill --

A Yes, sir.

Q -- on it. How deep was that well, that little windmill well?

A I don't recall. I read the transcript and I looked at the exhibits in there and I don't believe I recall right offhand just how deep that was.

I've got some notes on that case here; maybe I can find something on it.

I don't imagine it's one of the deep wells, though, because --

Q Less than 100, more than 100?

A No, it would be more than 100 because I do have the water level. The water level was standing at 230 feet in 1972.

Q And the whole application was denied because of that one pit that was --

A Yes, sir. If you'll review the transcript and the testimony and the arguments in the case, everything centered on that one well.

And the examiner in his recommendation said we cannot condone the use of this pit to endanger this fresh water. I think it had a chloride content of about 140. He said we cannot condone the use of this pit so close to this well that makes a water of only 140 parts per million chlorides.

Q Okay, let's stick to Section No. 35 up here where your proposed pits are.

A Okay.

Q Water flow from pits that were allowed in this area would be in what direction?

A The waterflow, okay, it's obvious which way the waterflow would be for the north -- northernmost pit.

Q Okay.

A It's in the depression. The depression comes around to the southwest and flow south, then. The

water flow from that pit would be toward the other pit below the number in Section 35. It would be southwest.

The waterflow from the southernmost pit would be to the north for just a short distance going downhill into that basin, and then it would turn around and come to the southwest also.

So the water from both -- from all three pits would end up in that depression which is in the middle of Section 35 and then flow to the south down towards the Amax Plant.

Q Straight south.

A Straight south through the channel there.

If the -- if the water migrated. I presume it would upon -- upon absorption of enough to saturate te sands down there, I presume it would start migrating and it would be in a southerly, southwesterly direction to the Clayton Basin.

Q In your opinion where would it enter that large yellow area on this exhibit?

A It would enter between the contours, you can see easily where the contours are to the west side there.

The contours -- I believe -- I believe that railroad track probably comes down the lowest part of that canyon through there. You see that railroad track com-

ing down through Section 3, cuts across the northeast corner of Section 2 and into Section 11 and then into Section 14, that would be about the lowest contours if you contoured all that out to where you could read the contours.

Q So it's your opinion that it would probably enter in Section 10 and 11.

A Yes, sir, because you can see the head of the draw comes up into Section 14 there, coming from the south; the head of the draw comes right up into that, so that railroad was following the lowest terrain in there until they had to make a turn in the northwest corner of Section 14. They had to make a turn to the southwest to join that other railroad, so it had to go uphill from that point.

Q We've alluded to several of the blue dots or blue areas.

A Uh-huh.

Q Would you please explain to me what these blue --

A I think Mr. Westall could probably explain those better than I can. They call them lakes on these maps but I think they're -- they're dry lakebeds which don't hold water except maybe some runoff water in the -- during rainstorms.

I'll hand the Exhibit Number Four to Mr. Westall. He's more acquainted with the ground conditions

out there, having lived there all his life.

Q Mr. Westall could you answer that question?

MR. WESTALL: Yes, they're -- they're kind of clay depressions in there that hold water, you know, after rains is the main one.

The, really the only one that I know of in the area, probably, that really holds -- holds any amount of water is probably this Walters Lake area up there.

Q Where is Walters Lake?

MR. WESTALL: It's in 26, north -- the northwest of 26, and also there is some water held in the, oh, right in 26 in that south -- southeast of 26.

MR. NUTTER: That little bitty lake?

MR. WESTALL: That little bitty lake right there.

Q Mr. Nutter, do you concur with Mr. Westall?

A I haven't examined the ground so I can't.

Q In your opinion, Mr. Nutter, let's go back up there to that little windmill that was drilled alongside the little lake in Section 26, that subsequently had Case Number 4710 denied.

A Uh-huh.

Q Do these depressions, in particular, the little depression on the west side of Section 35 and the south end of Section 3, could those hold fresh water after rain after a period of time?

A Section 3?

Q Yes, sir, that's right -- well, actually it straddles Section 3 and Section 10.

A I don't know. I don't know if those would hold water or not. They're shown as intermittent lakes on this exhibit.

Q Okay, Mr. Westall, could those depressions hold water (not understood).

MR. WESTALL: I'm familiar with the one there in 35 and there's a road that goes right through the bottom of this one here and when we have a pretty good rain it will hold enough water to make it green for just a few days, and it will go right on through it.

Q Are you familiar with that little lake bottom up there in Section 26?

MR. WESTALL: Yes, sir, I am in 26, yes, sir.

Q How does that one differ than the one in Section 35?

MR. WESTALL: The one in Sec-

tion 26, they have a holding pond dug there.

Q A holding pond?

MR. WESTALL: Uh-huh.

Q What do you mean? Describe it.

MR. WESTALL: Well, it's dug out, had a dozer in there and it dug out, dug banks on each side of it there where the water will run down into that, and on each side of that is kind of a -- on one side is a sandstone ridge that runs down through there, and on the north side of it up there where Hanson was proposing to put that pit, is the upper part there comes from sand hills in there and it all drains down into that little basin there.

Q Could the disposed water in Section 35 migrate over to the little pond in the west end of Section 35 and contaminate what rainwater is held in there?

MR. WESTALL: What rainwater, I feel like, that comes through there is surface water and I feel like that probably, from my experience with the disposal and everything up there, that most of the water that we're going to put in the pits will go down instead of run on the surface.

MR. NUTTER: You said that's the one that had the road right through it, anyway.

MR. WESTALL: It has a road and you can drive across it. I do not feel like that we'll have

any water running on the surface. We'll have -- the pits will be deep enough to where there would not be any water running on the surface.

Q Mr. Nutter, in your testimony you said that little windmill that was north of that little lake showed a level of fresh water at 203 feet.

A That's what my note here that I made when I was studying that case --

Q And since the rainwater that collects in that little pond in Section 35 is in the same area, it sounds like to me it absorbs quicker than the one in Section 26. Could that possibly have fresh water underneath that pond?

A Well, I don't know. If it does, they missed a bet by not putting a windmill there, I guess, but if you can drive across that lakebed at any time, as Mr. Westall has testified, I wouldn't imagine there's any water of considerable amount that would accumulate there.

I don't know and I'm not even positive that this note of 230 feet is correct. I presume that it is.

It says water is at 230 feet in 1972, and it's referring to, I believe it's referring to that well that's at the windmill. It's that little blue circle in 19 -- in Section 26.

There was a well there and that's the only well that was in the vicinity and that's the only well I could find in my seach of the State Engineer records, and of course, our pits are to the south of that and the flow is from north to south in the area.

MR. WESTALL: Can I make a comment?

MR. STOGNER: Regarding what, Mr. Westall?

MR. WESTALL: Regarding this well that's there in Section 35.

MR. STOGNER: Are you familiar --

MR. WESTALL: Section 26, excuse me.

MR. STOGNER: Are you familiar with that water well?

MR. WESTALL: Yes, sir, pretty much so.

I think in a previous hearing we also had on our water disposal Mr. Squires also testified I think if you'll look back, that at one time they did use that water for cattle watering and since then they have connected up to the fresh water off of the Amax line.

MR. STOGNER: So this well is

no longer there.

MR. WESTALL: Well, it is still there, yes, sir.

MR. STOGNER: What's it being used for?

MR. WESTALL: It's not being produced.

MR. STOGNER: Is the windmill still on it?

MR. WESTALL: There's a -- I think they've got an electric motor -- electric pump set on it.

MR. STOGNER: Is it able to pump?

MR. WESTALL: I have no idea. I just know that the water that they get off of Amax line is a lot better water than what they were getting out of the well.

A Mr. Examiner, I have a letter that was from Fred Henninghousen with the State Engineer Office, that was written in conjunction with Case Number 4710 back in 1972, and he states, the records of the State Engineer Office reflect in fairly comprehensive field checks of the area that there are stock water wells located in the northeast quarter of Section 22, okay, we have those two wells on

the map; the southwest quarter of Section 26, I think he meant the southeast quarter of Section 26, because that's where we know the well was; and the southwest quarter of Section 32 of Township 18, 30.

Also, in the southwest quarter of Section 13, now we're over in Townsip 19, 29, to the west, which would be off of this map, so I won't even discuss those, but he was talking about water wells in Section 13, 23, and 25 of the Township to the west.

And in the northeast quarter of Section 17 and the northwest quarter of Section 25 of 19, 30, I don't believe that those wells are shown in the current records of the State Engineer. Section 17 would be right up at the top of the map there under the -- just to the west of the highway where it goes to the north. We don't show a well there, although the map doesn't show the whole section.

And Section 25 is way over to the east and I have an idea that that benchmark is where there was a water well at that time, but it doesn't show a well there at the current time.

He says, we have little quality information on these wells, although the well in Section 26 of 18, 30, which is the one that's right by the little lake, has chlorides of less than 200 parts per million.

He closes his letter by saying the sur-

face drainage in the general area is generally towards the south and west.

Q Mr. Nutter, was that letter made part of the record in --

A That was an exhibit in -- that was Exhibit Number Six in Case No. 4710, yes.

Q We'll take administrative notice of Case Number 4710, I may note at this time.

A I actually wish you would because I think that the arguments are all centered on that one well to the lake -- right close by the lake, and I think that the examination of the evidence will show that drainage in this -- from our proposed application would not be towards that lake and towards that well.

Q In your opinion would any surface water flow into the little lake on the west side of Section 35 in the vicinity of your two ponds that we're proposing here today in Section 35?

A I'm -- I'm questioning whether there is a lake there or not. If there's a road right through the middle of it, I wouldn't call it a lake.

Q Well, Mr. Nutter, there's a blue mark on this map.

A Yeah, there's -- there's an accumulation of rainwater. Now these topography maps are made from

aerial photographs and the day they took the photograph there may have been some -- it may have rained that day, because Mr. Westall testifies there's a road that goes right through there and you can drive through there at any time.

Q Mr. Nutter, I lived in Hobbs for awhile and I remember when the Carlsbad Highway was under water, too.

A Yeah.

Q So, regardless, there is that blue mark right here, in your opinion would surface water from the vicinity of your two proposed ponds, would they flow into that depression?

A I can't read te contours closely enough to tell.

The amazing part about it is that that -- that that pond is higher than the depression in which both of those pits would be located.

Q Thank you, Mr. Nutter.

A So the pond might contaminate these pits, if you look at it that way.

Apparently that pond is a little bit higher. It's a little depression that's up higher than that major depression.

MR. STOGNER: Are there any other questions of this witness concerning the vicinity of

Section 35 before we move down to the other portion of this case today?

MR. TAYLOR: I have a couple of questions.

CROSS EXAMINATION

BY MR. TAYLOR:

Q Could you tell us approximately how much water is going to go into each of the pits and what the TDS of that water is?

A The pits up here in this end are producing from the Seven Rivers and Yates and the water quality of the produced water there is not all that bad. It's -- Seven Rivers and Yates don't make real nasty water and I'd say that the total, the TDS on it are not going to be more than 25,000.

Now this other pit down here to the southeast is from the Shugart Pool and the water is a little --

MR. WESTALL: It's vice versa there. This up here is the Shugart.

A Oh, this is the Shugart up here?

MR. WESTALL: Yes, sir.

A And this is the --

MR. WESTALL: Yates.

A Okay, I've got it reversed. The water up here in this area is the worst quality water and the one in the southeast is the --

Q Can you give us an approximation of the TDS on that?

A In the Shugart Pool I've seen statistics all the way from 25,000 to 82,000 parts per million of TDS, so it varies from well to well.

Q And there's going to be three pits in this section that we're talking about?

A Yes, sir, that's our proposal.

Q And can you give us an estimate of the water that would go into each pit?

A No, I can't, because at the present time those wells are producing the half barrel per day that's the maximum and who knows what the future might bring as far as future production of water and Mr. Westall -- Mr. Westall testified that they would like to put in a waterflood project in here sometime.

MR. WESTALL: Well, let's -- those wells up there are producing more water than that. Those wells up there are producing -- they wanted to -- are producing around 40 barrels a day and the 3 and 4 are producing 30 to 40 barrels a day.

Q So would you just estimate, how many

wells are there.

MR. WESTALL: There are four right now.

Q Four wells and three pits.

MR. WESTALL: No, there's only four wells and two pits at the present time.

Q Okay, but you're going to have three pits?

MR. WESTALL: Right, when we drill the Trigg No. 1, which would be our main central battery for that area.

Q So the four wells together you estimate are producing around 100 barrels of water or less?

MR. WESTALL: The four wells are producing a little less than 100 barrels a day.

Q Okay, and that 100 barrels would go into the three pits.

MR. WESTALL: Well, the two pits and then we will drill some more wells.

MR. TAYLOR: Okay, that's all I have.

RECROSS EXAMINATION

BY MR. STOGNER:

Q Okay, Mr. Nutter, I'm trying to get the

geological testimony out of the way first. Then I will come back and ask certain questions about the pits and such as that, but right now I'm just trying to stay with the geology in the area.

In your testimony concerning the pits in 20 and 21, the flow would essentially be in the direction of the Hackberry Lake, which is in 23, Section 23, 24, 25, and 26, which is to the west, is that right?

A That's correct.

Q Okay. And the two wells that have been reported for the Lusk Ranch in Section 28 and 33, those are uphill from your proposed ponds, is that correct?

A Yes, sir.

Q As was the well in Section 27 that you have marked.

A Yeah, the well in Section 27 is back up above that, yeah. I don't think it would be affected in any manner.

Q Okay. Now then, let's go to that well, the deep well that you said that the BLM or the Bureau of Reclamation is using as a water level meter.

A Yeah, in Section 31.

Q Right. Is that for the deep water that's down at 4000 feet or does it measure any of the shallow groundwater?

A I can't tell if they plugged the well or not from the reports in the Commission's file on the well, and I can tell you what they're reporting as water level. Now where that water is coming from, I don't know; whether it's Yates Reef water or Seven Rivers Reef, or just what it is, but they reported in the State Engineer records that it's 4103 feet deep.

Now whether they plugged it back, I do not know. They reported the -- the latest water level that I have is 1977 and the water level was at 574 feet below the surface.

So it could be reef water standing up to 574 feet or they may have plugged it back to some lesser depth and it's less water than that, but at any rate, in '77 it was standing at 574.56 feet below the surface.

Q What was the quality of that water?

A They don't report the quality at all. I have an idea that that's in conjunction with the Capitan Reef, though, because David Hale with the State Engineer, with the Interstate Stream Commission, was the one that made the comprehensive study of the Capitan Reef and he was the one that signed the papers when they took this well over from Hank Sweeney, the operator that was ready to plug the well.

So I think that it was probably obtained

in conjunction with David Hale's Capitan Reef study and I have an idea that that's where it's completed, down near the Capital Reef, or that's where it's open.

Q Do you know the quality of the Capitan Reef water?

A No, I don't.

Q Okay. You show a well in Section 25. That's over in the R-3221-B area.

A Right.

Q Near the Hackberry Lake. Would you elaborate a little bit more on that well?

A The latest depth of water that I show for that well was 21 feet below the surface, so I believe that again, I don't have anything on the quality of the water. I don't know, it's in the drainage area that comes down from the Amax Mine and into the Hackberry Lake.

Since the water level is 21 feet, I have an idea that it's just surface water again that accumulates either from rainwater or from the flow that comes from the Amax Plant through the -- through the Canyon there.

There's nothing that I can obtain as far as whether the well is producing whether the water levels are stable to 21 feet or whether that was just that one occasion.

I've got the elevation of the well. It's

at 3239 so it would be just inside that contour where I placed it on your map. I believe I placed it correctly.

You'll notice that there's a 3250. Then the next contour down would be 3240. It should be just inside that contour and the lake bed itself is apparently 3222. So it's some 17 feet above the lowermost contour in there. I don't know what that 3222 actually refers to. Maybe that refers to what they measured the lake -- the well at at one time, but the report from the State Engineer Office indicates it's 3239 feet, so I placed it on the 3239 contour.

Can you tell on your exhibit, Mr. Stogner, if there was a little "X" there where I put that circle, like they use for those benchmarks?

A Yes, it looks like there was one there.

Q Okay. They frequently put those at the elevation of the well, so that well would be at 3222, then, instead of 3239, as the current report is.

Of course the exceptions have been granted in Section 30 on the assumption that the flow would be from the Section 30 west into that immediate area, also, and then thence into the Clayton Basin.

Q How do you base that remark on?

A Well, I base it on these contours here. That checkerboard exception in Section 30.

Q Would the water disposed over there at the Amax Plant or any water discharged out of there, would it also migrate its way over to the Hackberry Lake?

A Yes, it would. It would follow right down through that canyon.

MR. STOGNER: Are there any other questions of Mr. Nutter concerning this area?

MR. BACA: Yes, Mr. Examiner, I have some questions.

MR. STOGNER: Mr. Baca, would you please identify yourself, your name and what's your position?

MR. BACA: My name is Philip Baca. I'm employed by the New Mexico Oil Conservation Division as an environmental engineer.

QUESTIONS BY MR. BACA:

Q Mr. Nutter, you made mention of Groundwater Report No. 3 and your survey of wells in that area.

A Yes.

Q Did you also take a look at any chemical analysis done on any of the wells in that area?

A Yes, I did.

Q Could you elaborate on that?

A Well, there are not too many wells that are recorded in there. As a matter of fact, the report shows water levels and the existence of many more wells than it shows the chemical analysis on, but the chemical analysis on the wells -- I don't have a chemical analysis on anything in Township 19 South -- 18 South, Range 30 East.

I do have an analysis on some wells in Township 19, 31.

Q Could you give us a summary of that?

A Okay. The one in Section 28 is reported to have total dissolved solids of 855 parts per million. That would include 55 chlorides, 398 sulfates, 219 bicarbonates, 56 sodiums and potassiums, 54 magnesiums, 139 calciums, 23 silicas, and 21 nitrates; 9/10ths of one part per million chlorides.

So it had TDS 855; hardness as CACO-3 569; percent sodium, 18 percent.

The well in Section 33, which we can't find record of at the present time, and probably the reason we can't find record of it, had total dissolved solids of 3340. Now the chlorides weren't a great deal more in there but sulfates were very high. So the ranch probably quit using that well on account of the high sulfates.

Q Does the --

A And that's the only two wells that I have

an analysis on that are on this exhibit.

Q Mr. Nutter, does the absence of any wells in Sections 20 and 21 mean that there are no aquifers below the surface in that area?

A In Sections --

Q 20 and 21, the area that you're applying for an exception.

A Oh. I can't say for sure that that would be the case but in an area where water is of vital concern, I would think that if there was a possibility of drilling a well a well would have been drilled, and I imagine there have probably been a lot of dry holes drilled that didn't make water that we don't have any record of, so I would imagine that the absence of wells probably is a good indication of the absence of water.

Q Are you familiar with the Water Quality Control Commission regulations, in particular Section 3-101A, regarding the waters to be protected in the State of New Mexico?

A I'm not sure if I am or not. You'd have to be more specific.

I'm in a general way acquainted with those regulations but that particular section, I don't know.

MR. BACA: Mr. Examiner, I recommend that we take administrative notice of Water Quality

Control Commission Regulations, Section 3, 101.

MR. STOGNER: How long, how lengthy of a document is that?

MR. BACA: A paragraph. It basically says that the State of New Mexico and the Oil Conservation Divison must protect waters with TDS lower than 10,000 parts per million as a potential future or present source of water.

MR. STOGNER: If there are no objections, we'll take administrative notice of that fact. Thank you.

Any further questions of the geologic nature of this particular area?

RECROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Nutter, I don't believe I've been handed any particular dimensions or plans on what your pits are going to consist of and what size or anything such as that.

A No, sir, you sure haven't. I don't have them available at this time.

If you'd like a sketch of the proposed pits, we'll be glad to prepared it and submit it --

Q That will suffice. Now if I understand

right, in 8629, case number, you have two pits at the present time, those being in Units G and O.

A That's correct.

Q And a proposed pit to the west at a later date, is that correct?

A That's correct.

Q Okay. I should have mentioned this earlier, but 8630 was misadvertised in the Artesia paper and will have to be readvertised for the hearing scheduled July 17th, 1985.

Also, Mr. Nutter, whenever you submit to us schematics or drawings or sketches of your pits, if you would include the volume of water coming into each pit, what particular well is supplying that pit, and the quality -- quantity, quantity of the volumes going into the pit.

A For each pit.

Q Yes, sir.

A That's under current conditions.

Q Yes, sir.

A Yes, sir, we'll be happy to.

MR. STOGNER: Are there any further questions of this witness?

MR. TAYLOR: Yeah, I'd just like to ask the same questions I did as to the other ones.

RECROSS EXAMINATION

BY MR. TAYLOR:

Q On, I guess this is your Exhibit Two.

A Yes, sir, that's Exhibit Two.

Q Would you go through the five pits and just approximately tell us how much water you think will be going into each one.

A Again, Mr. Westall would have to do that because he's more acquainted with the actual water production.

Some of those wells are shut in right now because it's too expensive to truck the water.

Q On these, the quality of water that's going in is the one that was about 25,000?

A Yes, sir, that's the better water.

Q Okay.

MR. WESTALL: That water will freeze, you know, when it gets down to freezing, it will be --

Q Okay, and what's the approximate amount of volume?

These wells are producing 200 barrels a day, right, of water?

MR. WESTALL: Well, the 2 and 5 Wells are, oh, producing between a hundred -- I'd say 130

and 160 barrels of water per day and approximately 60 barrels of oil.

Q And are they both going to go into that pit that's on that section?

MR. WESTALL: Yes, sir.

Q Okay, so that can be up to 400 barrels a day, or so.

MR. WESTALL: No, that's both wells.

Q Oh, that's both together would up to 200 barrels a day.

MR. WESTALL: Yes, sir.

Q Okay. How about the others?

MR. WESTALL: The 1, 3, 4, and 6 Wells will approximately 80 barrels a day all -- all four wells.

Q That's a total.

MR. WESTALL: Right.

Q And each of those wells will have a separate pit?

MR. WESTALL: No, sir, they will all be at the Number One battery.

A The number 3 and the 4, Mr. Taylor, --

MR. WESTALL: 3 and the 5.

A The 3 and the 4 jump over and go to the

pit where the Number 1 is.

Q Okay.

A And also the Number 6 and the Number 1 go into that pit, so there's four wells into that pit that's in the southwest of the northwest of Section 21.

Q So we could estimate --

MR. WESTALL: Around 80 barrels a day.

Q -- 80 barrels a day. Okay.

MR. WESTALL: The Texas Crude and the Parsley both make between 15 and 20 barrels of water per day.

Our future plans on this thing, after we get everything drilled up there and taken care of, is reinjecting this water as a waterflood.

Q Do you have any estimate on the amount of time that may be?

MR. WESTALL: Probably within the next 24 months.

Q Okay.

MR. WESTALL: We're trying to pick up some more acreage in the area.

Q It's your testimony, Mr. Nutter, that in your expert opinion fresh water would be protected under this -- under this, your plan.

A I see no hazard presented to any fresh water supplies by these proposals.

Q Thank you.

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

MR. STOGNER: Any other questions of this witness?

MR. BROOKS: I have one, Mr. Examiner.

MR. STOGNER: Mr. Brooks, would you please identify yourself, state your name, and your position?

MR. BROOKS: Larry Brooks. I'm employed as a geologist in Artesia for the OCD.

QUESTIONS BY MR. BROOKS:

Q Mr. Nutter, do you feel that the Clayton Basin and associated drainage to the south is the active KARST feature?

A Active what?

Q KARST topography feature, in other words, formed by collapse?

A Yes.

Q Thank you.

MR. STOGNER: Any further ques-

tions for this witness or Mr. Westall, for that matter?

If not, they may be excused.

Mr. Jennings, do you have anything further in either case?

MR. JENNINGS: No, sir, we have nothing further.

MR. STOGNER: Does anybody else have anything further in either case?

MR. JENNINGS: We'll offer Exhibits One through Six in this case.

MR. STOGNER: Exhibits One through Six will be admitted into evidence.

Case Number 8529 and 8630 will be held open pending the request for information.

8630 will be further continued to accommodate the readverstisement till the hearing scheduled for July 17th, 1985.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case Nos. 8629 + 8630 heard by me on 19 June 1985.

Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

17 July 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Ray Westall for an exception to Order R 3221, Eddy County, New Mexico. CASE 8630

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Jeff Taylor
Legal Counsel to the Division
Oil Conservation Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

MR. STOGNER: Call next Case Number 8630.

MR. TAYLOR: The application of Ray Westall for an exception to Order No. R-3221, Lea County, New Mexico.

MR. STOGNER: This case was heard by me on June 19th, 1985.

Due to a misadvertisement in the Artesia newspaper, this case was readvertised and continued for today's hearing.

Are there any additional appearances or additional testimony at this time?

There being none, Case Number 8630 will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8630, heard by me on July 17, 1985.

Examiner
Oil Conservation Division