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

8 August 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Pollution Control, Inc. for amendment to Division Order No. R3725, Lea County, New Mexico. CASE 8292

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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I N D E X

E X H I B I T S

MR. STAMETS: The hearing will please come to order.

We'll call next Case 8292.

MR. PEARCE: That case is on the application of Pollution Control, Inc. for amendment to Division Order No. R-3725, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant and I have one witness to be sworn.

MR. PEARCE: Are there other appearances in this matter?

(Witness sworn.)

TIM KELLY,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Kelly, for purposes of the record would you please state your name and occupation?

A My name is Tim Kelly. I'm from Albuquerque and I'm a consulting hydrologist.

Q Mr. Kelly, as a hydrologist, have you

previously testified before the New Mexico Oil Conservation Division and had your qualifications as a hydrologist accepted and made a matter of record?

A Yes, they have been.

Q And have you prepared, pursuant to your employment by Pollution Control, a hydrologic assessment of the area involved in this application?

A Yes, I have.

MR. KELLAHIN: We tender Mr. Kelly as an expert hydrologist.

MR. STAMETS: He is considered qualified.

Q Mr. Kelly, let me refer to your package of exhibits, which we have simply marked as Exhibit Number One, and ask you to turn to page 28 of that report, and as an introduction for the Examiner, would you describe for us in a general way what has been the history of the Pollution Control operations in the Laguna Gatuna area?

A Yes, sir. In February of 1969 Pollution Control retained the services of Ed L. Reed of Midland, Texas, to prepare an assessment of the area referred to as the salt lakes in western Lea County. It included Laguna Gatuna, Laguna Plata, and Laguna Tonto. And an application was made at that time. I believe it's Case Number 4047; was heard on March 19th, 1969, in which Pollution Control requested the use of Laguna Gatuna and Laguna Plata and Laguna Tonto as a site for disposal of oilfield brine.

The application was approved for use at -- of disposal of oilfield brine in Laguna Gatuna and Laguna Plata, and subsequently, Pollution Control began operations at Laguna Gatuna, which is shown in detail on page 28 of Exhibit One.

This shows in the north half of Section 18 of Township 20 South, Range 32 East, the present site of their operations, which have -- which they have had in operation since 1969.

They have also proposed a new site on the southeast site of Laguna Gatuna, which is shown in Section 17.

Q All right, sir, if you'll turn to the first appendix following page 36 in the Exhibit Number One, is that the Commission Order R-3725 that you've made reference to that's approved the current operations of Pollution Control at Laguna Gatuna?

A Yes, it is.

Q All right, sir. Would you outline for us generally, Mr. Kelly, what Pollution Control proposes to do at its site in the southwest quarter of Section 17?

A They propose to use this site in addition to their existing site for disposal of oilfield brine and waste products from the oil industry at this site.

I might mention that the site has been selected because of the lease which they presently have and also its proximity to Highway 62/180, which makes it some-

what more accessible to trucks.

Q What was the purpose of having Pollution Control retain you as a hydrologist to study this area? What were you looking to study, Mr. Kelly?

A The plans by Pollution Control were to add the additional site in Section 17 and at the same time to update the hydrologic assessment of the area, since their operation had been continuing for fifteen years, to determine if there had been any adverse effects from their previous operations and what the effect of the new site might be on the hydrologic system.

Q In going about studying for that goal, what information did you review and what studies did you undertake?

A The first thing we did was review the Reed study in detail and the Reed study consisted primarily of one illustration or exhibit, which was used in 1969, and that is included in our report as a plate.

Q All right, let's look at that for a minute. Let's unfold one of those and look at it.

Let me try and understand what this is. This represents Mr. Reed's work as consulting hydrologist and is the basis upon which the 1969 order was entered approving Pollution Control's use of Laguna Gatuna for a disposal site?

A That's correct.

Q All right, sir, and this, then, was the

basis where you started your review of this property.

A Right. We first of all reviewed the testimony from the hearing and then reviewed the map.

We then made a literature and file search of available data, of which a considerable amount had been collected in the past, both from work which we had done or the Bureau of Land Management in that area, and the WIPP site studies, which are nearby, and then we made an on-site evaluation in which we actually went into the field, updated the geologic map as best we could. We looked at the water quality information and the water levels which Reed had measured, as well as interviewed Mr. Snyder -- excuse me, Mr. --

Q Squires.

A Mr. Squires with Snyder Ranches, and to determine what the history of the water use in that area was. We also talked to some additional ranchers.

On the basis of this we prepared our report which is submitted here.

Q All right, sir, on Exhibit -- page 34 of Exhibit Number One, is that a tabulation of the reference material and other studies that you reviewed and included in your analysis of this area?

A Yes, it is.

Q Has a --

A I might -- I might mention that these references are the ones which are specifically referenced in

our report. These are not necessarily all the ones we evaluated.

Q As an expert hydrologist, Mr. Kelly, do you believe that you had an adequate data base from which to reach certain conclusions with regards to the continued suitability of Laguna Gatuna as a disposal facility?

A Yes, I do.

Q Before we go into detail on the facts surrounding your conclusions, Mr. Kelly, I think it might be helpful if we simply turn to page 30 of your report and have you give us a general synopsis from page 30 and 33 of the six major conclusions you have reached based upon your study, and then we'll go back and talk about each one of those items.

A All right. Laguna Gatuna is a natural ground water discharge point. It is the site where the facility is now in operation. The information in that area indicates that the ground water is naturally discharging into Laguna Gatuna so that the flow is to the lake rather than away from it.

The same thing is true of Laguna Plata, which is also shown on this plate several miles to the northwest.

The second concludion we made was that natural discharge from springs at Laguna Gatuna and Laguna Plata is much more highly mineralized than the water that is being produced from wells in the area or from the water

which is being disposed of by Pollution Control, Incorporated. So the natural water is worse than what is being put in there from the oilfield sources.

Q All right, sir.

A Our third conclusion was that the site of Laguna Gatuna is suitable for the discharge of as much as 30,000 barrels brine per day. This was what the original application was for.

The fourth conclusion was that after fifteen years of operation by Pollution Control there appears to be no adverse impacts on the hydrologic system in that area.

Our fourth is that the solid wastes which have been disposed of at Laguna Gatuna have not in any way been detrimental to the hydrologic system, and our final conclusion was that the facility which is proposed in the southwest corner of Section 17 would not adversely impact the hydrologic conditions, although we see no reason to increase the original allocation which was granted of 30,000 barrels per day combined from the two facilities.

Q All right, sir. Let's go back, then, Mr. Kelly, and follow your report using the order that you have placed them on the table of contents page, and have you first of all discuss for us in a general way the geology of the project area and focus in on the availability of any fresh water aquifers in the area.

A The significant structural control, Nash

Draw to the west, which is a result of the solution of brines from the Rustler formation and the top of the Salado formation, which has resulted in the collapse of Nash Draw and, in my opinion, Laguna Plata and Laguna Gatuna and Laguna Tonto are all extensions of Nash Draw. They simply are not physiographically or topographically joined.

Q All right, let's go to page three of the package of Exhibits and have you use that as a plat from which you can reference the geology.

A All right. The site itself is at Laguna Gatuna, which is shown in Township 20 South, Range 33 East, and about seven miles east of the Lea/Eddy County line.

Nash Draw is formed along the west edge of Lea County and -- but primarily in Eddy County, so that it is just off the margin of the map to the left.

These sites, then, are just to the northeast of Nash Draw, and the WIPP site, where there's been a considerable amount of drilling and testing performed.

The beds, then, in this area dip to the east beneath Eddy County and are controlled to a large extent by the Delaware Basin.

Q To the north and east on the plat is a line that says Mescalero Ridge. What is that?

A Mescalero Ridge is the west and the southwest boundary of the Ogallala formation. That is -- has a bearing on this particular project because the original ranchers in the vicinity of the salt lakes had a very

difficult time finding water for stock and domestic purposes. Most of the water was brackish.

When the potash mines and the refineries for the potash industry went into Nash Draw, as a source of water they piped water from the high plains or north of Mescalero Ridge to the Nash Draw area.

The pipelines, as a trade off by the ranchers, were then tapped by ranchers to provide water for their use, primarily in this salt lake area.

So that many of the wells which were originally shown on the Ed Reed map have fallen into disrepair because of the better quality and more dependable supply which is obtained from the pipeline.

So he was able to measure some water levels but most of these wells are no longer in use simply because the water quality is much poorer than is available.

Q All right, sir, we'll come back in a minute to those wells that are still in use in the area, but let me have you go to page four of the Exhibit Number One and have you give us the -- cite specific geologic features at --

A All right.

Q -- Laguna Gatuna.

A Figure 2 on page 4 shows a cross section of Laguna Gatuna. The lowermost formation are the Dewey Lake Redbeds, which are shown by the horizontal lines. The Dockum Group forms the bedrock in that area beneath the lake

itself, and then there is a think veneer of alluvial and playa deposits, both on the upper ridges and also in the base of the playa itself.

There is an intermittent lake in the playa and the fault zones indicated on both sides of this lake, or playa, are in my opinion the avenues through which ground water from the Rustler formation is moving upward and being discharged as springs along the boundaries of the playa itself.

Any discharge from Pollution Control facilities, which are diagrammatically shown on the left, come down into the lake itself from the northwest corner and from the left.

The new facility is illustrated by that tank and would also empty into the playa itself.

The --

Q As a hydrologist, do you see any adverse consequences of significance to the fact that the point of discharge for Pollution Control as at the higher ground areas adjacent to the laguna itself, rather than down in the laguna?

A The -- any water which is held up on the boundaries is confined in surface impoundments and may, in fact, enter to some extent into the very thin alluvium, but at that point it has an opportunity to evaporate so it's contained in the boundaries of the playa itself, rather than getting out into the middle of the lake.

Q Does it make any hydrologic difference whether or not the discharge is up at the points you've depicted on the schematic rather than down at the lake level?

A No, it doesn't.

Q All right. Let's go back, then, Mr. Kelly, and look at the Reed plat and have you identify for us any wells that Mr. Reed studied that continue to be used.

A To my knowledge none of the wells which Reed evaluated are still in use.

There are two which we were able to measure the water level in; however, they were not in a sufficient state of repair to actually pump a water sample from them, so we were able to measure the water level but not the -- but not collect a sample.

These two, one is located in the northwest corner of Section 25, which is southwest of Laguna Gatuna, and this shows a water level -- an elevation of 3555 and water level of 3516, or 38 feet, 38.6 feet below land surface. When we measured that the water level was less than a foot below the level that Reed measured, so the water level, the natural water table in that particular well had declined less than a foot in the fifteen years since Reed did his work.

Q What significance do you make of that fact?

A That there has certainly been no effect from water contributed to Laguna Gatuna and I would attri-

bute it simply to a gradual decline in the water level with time.

Q Conversely, if the water level had been increased?

A The water level should have risen; would have had to have come from some source, either much more precipitation or some source such as water being emptied into Laguna Gatuna or some other source.

Q Is that well at a location hydrologically where it would be down gradient from water disposed of in Laguna Gatuna?

A No, it's up gradient. It's about, well, let me see, the water level in that well is about 21 feet higher than Laguna Gatuna but if the water in Laguna Gatuna had risen significantly it should have affected the regional ground water flow. There could have been some deline, but I would not have expected much, so in fact both of these wells that we were able to remeasure have a higher water level than the base of Laguna Gatuna. All of the rest of the wells were in disrepair.

Q You made reference to Nash Draw and to the potash operations. Is there a plat that shows the location of that area?

A The illustration on page 25, Figure Three.

Q Well, let's make sure everybody's got that.

All right, sir, let's discuss this plat.

A This shows in the very southeast corner of the map the topographic contours show a significant depression there. That is the northernmost edge of Nash Draw and it shows the proximity of Nash Draw to Laguna Tulston (sic), Laguna Plata, and Laguna Gatuna.

The rest of the draw is off to the left side; however, these water table contours show a regional flow of ground water from the 3525 foot contour towards to the west and northwest so that on the north and west side of Laguna Plata the water table is as much as a hundred feet below that to the east side of the project area.

Q All right, would you summarize for us your findings and conclusions with regards to the ground water movement?

A Yes, sir. We prepared this contour map based on the data which Reed had generated which we were able to measure and water levels which have been produced since the Reed study, and this shows a regional ground water flow essentially from east to west with local variations around Laguna Plata and also Nash Draw, where the 3425 foot contour makes a large swing back to the southeast.

The reason that we did this was it shows a more regional ground water flow, whereas Reed simply drew arrows showing what he supposed to be directions of ground water flow, but by working with a regional area we were able to see the large pictures, whereas Reed was looking at very

minor changes in a small area and therefore I felt that the regional pictures would supplement the work that Reed had done.

Q All right, sir.

A So that there is no conflict from what we have done with what Reed did. We simply expanded his, as shown in Figure 3.

Q All right, sir, let's go on and have you summarize your findings with regards to the water quality data.

A The water quality which Reed evaluated indicates that the oilfield brine in the area is less highly mineralized than the natural discharge in Laguna Gatuna and Laguna Plata.

We have the information from Pollution Control and the data which they provided us, and we found no contradiction in this data. The conclusion being, then, that the highly mineralized water being discharged into Laguna Gatuna and Laguna Plata has to originate from some deeper source, presumably either the Rustler or more logically from the so-called Brine aquifer on top of the Salado formation, and the regional gradients are such that it would move up along joints and fault zones which would be associated with Laguna Plata and Laguna Gatuna.

Q Let's get sites specific now, Mr. Kelly, and have you give us your opinion as to the suitability of Laguna Gatuna, both in the northwest corner of the laguna

and the southeast corner of the laguna as sites for the disposal of produced salt water brines and other waste products.

A Our conclusion was that Laguna Gatuna is an excellent site for the purposes with which Pollution Control is using it. The work by Reed was accurate. Due to highway construction in that area there were more exposures of the Dockum Group, which is shown on page 28, Figure 4, as TR. This substantiated our conclusions that the alluvial material is extremely thin in that area and the amount of brine which has been disposed of by Pollution Control in the past fifteen years has never resulted in a permanent pool of Laguna Gatuna. With its surface area of 383 acres it is adequate to evaporate all of the brine which is being disposed of in the lake by Pollution Control.

Q Let's go to page 29 and have you describe for us the evaporation studies that were conducted.

A We conducted some evaporation studies in the Nash Draw area, which is just a few miles to the west, and we concluded that the evaporation rate, the summer evaporation rate, from a brine surface in that area was approximately 6.69 gallons per minute, or roughly 229 barrels of brine per acre per day.

On the other hand, the winter evaporation loss was approximately 13 barrels of brine per acre per day. With the minimum surface area of Laguna Gatuna, there is the evaporation potential of 87,700 barrels per day during the

summer and about 5000 barrels per day during the winter.

This is well within the annual disposal range of Pollution Control and clearly these evaporation calculations have shown that they are adequate to take care of the amount of brine being discharged by Pollution Control.

Q Let's go now, Mr. Kelly, to pages 31 and 32, which are the discharge rates recently used at Laguna Gatuna.

A Right. This is information which I believe has been submitted to the Oil Conservation Division, but they simply show the monthly disposal rate for 1983 and 1984, both as a graph and then on page 32 in the cumulative totals for the individual months.

And I might mention that the original application and grant was for 30,000 barrels per day, whereas if you'll look at the monthly totals on Table 3, page 32, it is considerably less than that, and I would assume that the discharges at the present time, in fact I believe that Mr. Foster told me that the highest discharge rate by Pollution Control occurred in the early eighties but are not much less than what you see here on -- on Table 3.

Q All right, sir, in addition to the conclusions that you've made on pages 31 and 33, I'd like to direct you back now to the Division Order of April of '69, and go through some of the findings that were made back in '69, and have you conclude for us whether you still concur

or disagree with any of those findings.

Let's start with -- do you have the order?

A Yes, I do. You're starting on page one of that order?

Q Yes, sir, on Finding No. 3 they make reference to the areawide Order R-3229, which prohibits the disposal of produced salt water brines in unlined pits. It then goes on --

A Right. All right, there is -- as near as we have been able to determine there is no potable water in this area. By potable water I'm using the definition that the EID uses of 1000 parts per million.

Q That is also the State Engineer's definition on --

A Oh, yes.

Q -- Finding No. 4, page 2 of the order?

A Yes.

Q All right, sir.

MR. STAMETS: Mr. Kelly said 1000 and Finding 4 is 10,000.

A That's -- okay. The difference there, one, the State Engineer uses 10,000 as a definition of fresh water, whereas I'm using the definition of potable water, that is water suitable for human consumption.

Q So your standard is even higher than the State Engineer's standard --

A Yes.

Q -- for water to be protected?

A Right.

Q All right, and using your higher standard --

A We can find no evidence that there is any water in the area which could be considered potable, other than at one time there was a well at what was then called Midway. It was a bar and service station located on Reed's map in the south half of Section 23, and approximately two and a half miles southwest of Laguna Gatuna.

This shows a chloride of 362 parts per million. This water was potable, was used in the operation, but the facility has been destroyed and the wells are abandoned.

Q All right.

Q That was the only fresh water we were able to find, and this was verified by other ranchers in the area who are still in operation, who haul water or take it from the pipeline.

Q Let's go back to the State Engineer's standard of 10,000 parts per million.

Do you find any water in this area that is of that quality or greater?

A There is a lot of water in the area that's greater than 10,000.

Q I've got this backwards. I meant 10,000

or less.

A There is very little water in the area that's 10,000 or less.

Most of the water, and certainly the water from the springs, exceeds this -- this amount; water which is naturally discharged into the lake itself.

For example, at Laguna Gatuna you can see a lake sample identified by Reed which had chlorides of 158,000 parts per million and sulfates of 125,000.

Q All right, let me make sure I'm clear. Are there any waters in the area containing 10,000 parts per million or less of total dissolved solids which have a present or reasonably foreseeable beneficial use that might be impaired by the discharge of water in Laguna Gatuna as the applicant proposes to do?

A No, sir.

Q All right. Let's go down to Finding No. 7. I think you've concluded for us that this water is not fresh water in the lagunas?

A That's correct.

Q All right, sir, and Finding No. 8?

A The -- I conclude with this finding that the underlying Redbeds are virtually impermeable and the -- any seepage which would get into, or which would be -- any water which would be impounded in the lakes would not seep into the underlying formation.

Q All right, sir, and Finding No. 9?

A These -- the synclinal structure does exist and that the flow of surface and subsurface water into the boundaries is towards those lakes.

Q All right, sir, so you concur and believe the Finding No. 9 is supported by substantial evidence?

A Yes, I do.

Q Let's go to No. 10.

A I also agree with this finding, that there is no leakage from Laguna Plat and Laguna Gatuna, simply because, first of all, the hydrologic gradient indicates that it toward the lakes rather than away, but also, the evaporation surface at the bottom of each of these lakes is great enough to evaporate any natural or artificially discharged brine into those lakes.

Q Finding No. 11 is directed towards Laguna Tonto, which is not the subject of our application here.

A That's correct.

Q Let's go to Finding No. 12 with regards to utilization of Laguna Gatuna. Do you -- do you concur with that finding?

A Yes, I do. It does not constitute a hazard to fresh water supplies that may exist in the area.

I believe that most of these other findings pertain to the -- to Laguna Tonto to a large extent.

Q Yes, sir, I agree with you. I think that you have covered the essential findings in the prior order that would apply to the current application.

In conclusion, then, Mr. Kelly, do you believe the continued use of Laguna Gatuna as a disposal site for as much as 30,000 barrels of brine per day is still a suitable disposal site?

A Yes, I do.

Q And do you see any adverse consequences of changing or adding to the point of disposal by adding the southwest quarter of Section 17 to the disposal operation?

A No, sir.

Q Based upon your studies and knowledge of the area, Mr. Kelly, do you see any adverse consequences of the fifteen years, or so, operation by Pollution Control in this Laguna Gatuna as a disposal facility?

A No, we saw no evidence at all.

Q And do you see any adverse consequences hyrologically to the continued use of Laguna Gatuna as a repository for solid oilfield waste products --

A No, sir.

Q -- drilling cutting and drilling muds?

A No, sir. In my opinion it's probably one of the most suitable sites in the area.

Q Was Exhibit Number One prepared by you or compiled under your direction and supervision?

A Yes, it was.

Q All right, sir.

MR. KELLAHIN: Mr. Examiner, that concludes our examination of Mr. Kelly. We have con-

cluded our examination of Mr. Kelly by discussion of oil well solid waste products. That is paragraph 3 of our application. It is also specifically addressed in the current -- now I've lost my place.

I'll admit I can't pick it out real quickly, Mr. Stamets, but the application in this case seeks to have a finding addressing the use of this disposal facility for -- as a repository for these oilfield waste products, including the drill cuttings and drilling muds.

As a practical matter, this site has been used for very many years for that purpose. Mr. Kelly has demonstrated that he sees no adverse consequences from continuing that to occur and we would request that a specific finding and approval for that part of the operation be included in the order.

We move the introduction of Exhibit Number One.

MR. STAMETS: Exhibit Number One will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Kelly, is it your opinion that with the 30,000 barrels of water per day disposal limitation that no water can move out of the area of Laguna Gatuna?

A Yes, sir, it is. The summer evaporation rate would certainly more than cover that.

The winter evaporation rate would not, but the hydrologic conditions are such that even if a ponding occurred during the winter, it would be evaporated during the summer.

So it is my opinion that that would be the case.

MR. STAMETS: Are there other quesitons of the witness?

MR. BOYER: Yes.

QUESTIONS BY MR. DAVID BOYER:

Q My name is David Boyer. I'm a staff hydrogeologist with the Oil Conservation Division. I have a few questions of Mr. Kelly.

Mr. Kelly, am I correct in understanding you agreed with the finding of No. 11 on that 1969 order, that the evidence indicates that there may be some leakage of water into -- to the southeast and therefore southwestward toward Lagune Gatuna? Did I understand you correctly on that?

A Not in -- not in relation to Laguna Tonto. We did not discuss Laguna Tonto in the original findings.

Laguna Tonto was excluded from use by Pollution Control.

Q So you did not -- you did not investigate that particular --

A No.

Q -- thing. All right, I was -- getting back to Figure 3 on page 25, you showed the hydrologic contours and it would show a couple of things.

First off, that this -- it is my understanding that the water table contour map was prepared by you for inclusion in this report.

A That's correct.

Q Okay. It shows that, according to the contours, that you could have movement northwesterly out of Laguna Gatuna towards the northwest if the hydrologic flow lines are followed.

Is it a possibility also that you might have a closed contour around Laguna Gatuna that would move material into the laguna instead of to the northwest?

A Yes, sir, there is.

Q That was not investigated, though, and you don't have sufficient information?

A No, there's not sufficient information. These are 25 foot contours and certainly with additional drilling information we might be able to verify that, but I might mention that the water quality in Laguna Plata is generally worse than that in Laguna Gatuna, so I, if it did move to the northwest, I would assume that Laguna Plata would become the discharge point.

Q All right. On the -- on the map prepared by Reed, you went back and determined that the well in the northwest one-quarter of Section 25 to the southwest of La-

guna Gatuna was able to be measured, is that correct?

A Yes.

Q Did you -- did you attempt to get a conductivity measurement to that well at all?

A No, the well had a windmill on it but the windmill was not operative, so we could not get a sample from it with the sucker rods. There was not enough room to sample it.

Q Nor was there enough room to get a conductivity probe down -- down inside it at all, losing it or possibly getting a conductivity measurement?

A Well, Mr. Boyer, our conductivity measure has a probe about six inches long and we wouldn't have reached the 16 feet, but I presume a downhole conductivity meter could have been used, yes, sir.

Q And one additional question, the well that is shown in the northwest one-quarter of Section 21, that shows that there was water that was probably greater than 1000 pps, but certainly less than 10,000 in the Reed map.

That was unavailable for any type of measurement or water level or anything like that?

A No, I thought that was the one I referred to as the other measurement. I could be wrong. Let me --

If you will refer to page 23, the fourth listing from the top in Table 2 identifies a windmill at location 20-33-21, 111, with a surface elevation of 3536.

That is the well in question here.

The water level on January 25th of 1984 was 35.42 feet below land surface.

When Reed measured the water level it was 36.6 feet.

Q And that well is also inoperable and you were unable to get a water level -- I mean a water sample?

A Right. Right.

MR. BOYER: That's the extent of my questions.

MR. STAMETS: Are there any other questions of this witness? He may be excused.

Is there anything further in this case?

The case 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 C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8293 heard by me on 8-28, 1984.

Richard L. Stamets, Examiner
Oil Conservation Division