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

16 January 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Blanco Engineering, Inc., for salt water disposal, Eddy County, New Mexico. CASE 8323

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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MR. QUINTANA: We'll call Case 8323.

MR. TAYLOR: The application of Blanco Engineering, Inc., for salt water disposal, Eddy 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. QUINTANA: Are there other appearances in the case?

MR. CARR: May it please the Examiner, my name is William F. Carr, with the law firm Campbell and Black, P. A., of Santa Fe, appearing on behalf of Yates Petroleum Corporation.

MR. QUINTANA: Do you have any witnesses?

MR. CARR: I have two witnesses.

MR. QUINTANA: Will all witnesses please stand at this time to be sworn in?

(Witnesses sworn.)

MR. KELLAHIN: Mr. Examiner, Blanco Engineering, Inc. seeks the approval of the Division

for the use of the PanAmerican Flint Well in Section 22 as a salt water disposal well in the Atoka formation to give it an opportunity to avoid the onerous and expensive trucking charges they continue to incur to dispose of produced water from San Andres oil wells in the area.

Blanco Engineering seeks to do what other operators, including Yates, have done in the area, and that is to locate and utilize a wellbore that has been depleted from the deep gas zones and to convert that well into a disposal well for the produced San Andres water.

On September 5th, 1984, before you, Mr. Quintana, as an Examiner, Blanco Energy presented its C-108, its exhibits and its testimony concerning the utilization of the Flint Well for disposal purposes.

The Commission, or the Division entered Order 7693, effective November 9th, 1984, approving that well for that purpose.

Thereafter Mr. Paul White, who is President of Blanco Energy, entered upon that well and commenced to convert that well for disposal purposes, expending dollars in excess of $55,000 for the conversion.

I forgot the exact date, but I believe some time in December, if I'm not mistaken, Mr. White and the Commission were contacted for the first time and it became apparent that Yates Petroleum Company had been omitted as one of the parties to be notified of the salt water disposal case.

The notice to Yates Petroleum Corporation was not made. They are in fact a working interest owner in the area. They in fact have the lease on the surface for minerals where this actual well is located.

Therefore, we believe the only appropriate thing to do, and what the Division has done, has called this case and docketed under this docket number to give Blanco Energy the opportunity to persuade the Commission that they ought to still utilize this wellbore for this disposal with Yates present at the hearing to present their opposition and to allow you to determine whether or not this well ought to be used for disposal purposes or whether or not it ought to be further tested in some way for gas production.

We are not asking you, nor are we prepared to ask you, to resolve the legal rights to the wellbore.

The background with regards to the well is a matter we're not bringing to the Commission, but for your information, the evidence available is that the Flint Well was drilled by PanAmerican, now Amoco, a number of years ago, and on September 15th, 1970, that well was plugged and abandoned, having been watered out in the Atoka gas zone. It produced gas in the Atoka, it watered out, they plugged and abandoned the well.

That lease expired. Thereafter Yates obtained a lease on that property for the oil and gas

minerals. That lease does not say anything about the plugged and abandoned well.

In August of '84 the same lessor, being the surface and the mineral owners that conveyed the oil and gas interest to Yates, signed an agreement with Blanco to allow them to utilize this plugged and abandoned well for salt water disposal purposes.

So there is an unresolved legal dispute over who had the right to use the wellbore ultimately, and Mr. Carr and I will have to resolve that.

Blanco's position under this application is to have the Division make, under its specific rules, a determination based upon substantial evidence that either we can utilize the formation for disposal or that there is substantial evidence to allow Yates to use the wellbore to test for further gas production.

That is the issue, as I see it, that you need to decide, and that is that issue that we are prepared to go forward with today.

MR. CARR: Mr. Examiner, I basically concur in the statement made by Mr. Kellahin.

The question is not the ownership of the wellbore; at least that's not the question before you. We will have to resolve that question elsewhere.

Yates will appear before you today and present evidence that we believe shows that they should be entitled to go forward and attempt to recomplete

in this interval to produce gas, and that's the basis of our opposition.

We are not asking you to resolve the ownership question that properly belongs elsewhere.

MR. KELLAHIN: Mr. Examiner, I'm going to present you as a packet of exhibits the same C-108 and the exhibits that were heard by you in Case 8323 back on September 5th, 1984, and we are using the same case number in today's case.

And so that Yates will have a full and complete opportunity to hear our entire testimony, we are going to repeat that for you today.

PAUL G. WHITE,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q For the record, Mr. White, would you please state your name and occupation?

A Paul G. White. I'm an engineer and President of Blanco Engineering, Incorporated.

Q Mr. White, do you hold any professional degrees in geology or engineering?

A Yes, sir, I hold a professional degree in

engineering.

Q And have you testified before the Oil Conservation Division previously as a petroleum engineer?

A Yes, sir, I have.

Q And on September 5th, 1984, did you testify before this Examiner in Case 8323 with regards to Blanco Energy's application for the utilization of the Flint Well for salt water disposal purposes?

A Yes, sir, I did.

Q What is your relationship with Blanco Energy, Inc.?

A I'm the President of Blanco Engineering, Inc.

Q And was Exhibit Number One in that earlier hearing in Case 8323 prepared and compiled by you?

A Exhibit Number One?

Q It's the C-108, Mr. White. Let me show you a copy of it so you're looking at the same thing I am.

A Yes, sir. We -- we were instrumental in preparing that along with help from our legal counsel, yes, sir.

Q All right, sir.

MR. KELLAHIN: We tender Mr. White as an expert petroleum engineer.

MR. QUINTANA: He is considered as an expert.

You may proceed.

Q Mr. White, let me direct your attention to Exhibit Number One, and specifically to the plat contained in the information. Do you have that, sir?

A Yes, I have it.

Q Would you identify for us what that plat is?

A This plat was prepared to -- to identify the location of the Flint No. 1 plugged and abandoned gas well. It's located 1980 from the south and 1980 from the east lines, Section 22, Township 18 South, Range 26 East, Eddy County.

Q All right, it's in Section 22. It's in the northwest of the southeast quarter?

A Yes, sir, that's correct.

Q All right. And around that well you have scribed a circle?

A Yes, sir, that's right.

Q That's the half mile radius circle?

A Yes.

Q All right. Would you give the Examiner some of the historical background on the Flint Well in terms of who drilled it, what formations were tested and produced, and when the well was plugged and abandoned?

A The Flint Well was drilled by PanAmerican and they tested, in this well they tested the Abo section and it was not productive.

They tested one zone which is probably an

Upper Atoka zone, and it -- on a DST and it was not productive.

And then they perforated and brought in an Atoka Penn discovery well there, and they produced this as a gas well for some years. It accumulated in excess of 5-billion cubic feet of gas.

And then the well watered out in 1970 and I think we have evidence to show that it did water out in this zone. It wasn't a matter of depletion. It watered out because of producing rates and it watered out because of it being low structurally.

The half mile circle is on there to indicate that there were -- there is no Atoka Penn production inside -- producing wells inside that circle.

There's a --

Q Let me ask you this, Mr. White. When was the Flint Well plugged and abandoned?

A It was plugged in September of 1970 and the -- the form filed showed that there were no workover possibilities. That was PanAmerican's analysis of the situation.

Q Mr. White, you indicated that you thought the well was plugged in September, 1970.

Would you please review your files on the Flint Well and indicate if 1970 or 1979 is the proper date to use?

A I -- let me -- let me check one other

well file here, Counselor, and I'll -- I think it was 1970. I'll check it.

Bear with me just a moment, please.

Plugging and abandonment operations were performed and concluded on September the 15th, 1970.

Q All right, sir. Thank you.

Within the half mile area of review, Mr. White, have you found any plugged and abandoned wells that penetrated through or produced from the interval correlative to the disposal interval in the Flint Well?

A Yes, at one time there was the Lea Gas Unit, which is right on the borderline of the circle up in the south half of the northwest quarter. It's the Amoco Lea Gas Unit Well.

That well produced from the Atoka Penn zone and has been plugged and abandoned.

And to the south in Section 27, right on the borderline of the circle, again, is the Indian Hawk Well, which I believe produced from the Atoka Penn and is in a state of temporary abandonment at the present time.

Q Other than those two wells, are there any other plugged and abandoned wells that penetrated through the proposed disposal interval?

A No, sir, not to the best of my knowledge.

Q Are there any producing wells within the half mile radius that produced from formations correlative to the disposal interval or below?

A No.

Q When we look at the plat and we see the various oil well symbols within the half mile radius, what type of oil wells are we looking at?

A Those are San Andres wells which produce from approximately 17 - 1800 feet, I believe, oil wells.

Q Let's turn to the package of information that you have supplied in the C-108 and have you start on the page immediately following the form, and have you describe for us your proposed method by which you will convert the well for disposal purposes.

A We propose to remove dry hole marker and install deadman and clean location and clean out the plugs which PanAmerican had placed in the wellbore. They left all of the casing intact and it was cemented to surface, and we wanted to clean out the cement plugs in the wellbore, and trip out of the hole with the bit, run a packer on the 2-7/8ths tubing and pump in for rates, and if the rate and pressure was commensurate with good salt water disposal technique, we were going to, of course, tube the well up according to the rules and regulations of the Oil Commission and place the monitor devices on the different casing strings and prepare the well for salt water injection.

Q Would you describe for us what you anticipate to the need for the use of this well for disposal purposes?

A In amounts?

Q In terms of what the source is of produced water that you want to dispose of in the well and what -- what in your opinion justifies the need for this disposal well.

A We have -- and Tom, it's Yeso water instead of San Andres water, I might correct that.

Q All right.

A And we have four producing Yeso wells in Section 25, 18, 26, and we have to produce a lot of water there to get the oil. Evidently the water and oil come through the reservoir right together, and our ratios are sometimes as high as 9-to-1 water, more -- more possibly 6-to-1.

Q Is that characteristic of the Yeso wells in the general area?

A Yes, sir, it is characteristic of all of them.

Q And what are you currently doing with the water produced from those wells?

A We have to haul it.

Q And at what -- where do you haul it to and what price do you have to pay when you have it hauled?

A We have bids for -- the cheapest bid we had for hauling the water is $1.12 per barrel, and that includes disposing of it.

Q And approximately what amount of water is being produced from the four wells, or will be produced from

the four wells?

A At the present time we've got approximately 900 to 1200 barrels a day from these four wells.

Q Do you have an opinion as to whether it will prolong the economic life of your four Yeso wells if you're allowed to use this well for disposal purposes versus continuing to truck the water?

A Well, it would prolong the life of the Yeso wells. In fact it is completely pertinent and necessary to dispose of this water in some manner besides trucking in order to make the whole project an economic feasibility -- feasible.

We have, probably, 400,000 barrels of oil in reserve on the Section 25 Yeso formation, and we cannot in any way get that 400,000 barrels of reserves out of the ground, plus 400,000 Mcf of gas, without a disposal well, a salt water disposal well.

Q Do you have future drilling plans in the Yeso formation that will require you to have a disposal facility for your use?

A Yes, sir, we do.

Q Will the describe for the Examiner generally what those plans are?

A We plan to drill 11 more Yeso wells on the north and south half of Section 25, 18 South, 26 East, Eddy County.

Q Have you made any calculations of the an-

ticipated reserves in place in the Yeso that will be developed by the additional drilling?

A Yes, sir, we feel like that we have in the range of 400,000 barrels of oil to recover from the Yeso formation in Section 25.

MR. QUINTANA: Are these additional barrels from what you already have?

A No, sir, 400,000 total from the 15 wells, the 4 we have producing plus the 11 that we will drill.

Q In reviewing the information that you have presented in the C-108, Mr. White, do you anticipate a need to have a pressure, disposal pressure rate at the surface in excess of the pressure limitation of .2 psi per foot of depth that the Commission establishes as a standard?

A No, sir, we do not.

Q Do you anticipate that the source of the disposal water will be other than the Glorieta-Yeso produced water from that formation?

A No, sir, the only produced -- the only water that we would inject into the well for disposal purposes is Yeso-Glorieta water.

Q Within the area of review, do you know whether or not there are any fresh water sources?

A Yes, sir, there are fresh water sources in the area of review.

Q And at approximately what depths is that water produced?

A It's the Artesian water and the depth will vary a bit, but it, in this area it would not be below 860 feet.

Q Is the proposed disposal well currently or proposed to be cased in such a way that there will be no potential for contamination of the shallower fresh water aquifer from the disposal into the proposed disposal interval?

A That's true. The Flint Well is cased properly and all ways is -- fulfills all regulations and restrictions for cementing and pipe, and there would be no threat to any contamination of fresh water in the area.

Q Let me stop a moment in reviewing the C-108, Mr. White, and have you identify what I've marked as Blanco Exhibit Number Two.

A Uh-huh.

Q Can you identify that exhibit for me?

A Yes, sir, I can. Would you like for me to tell about it?

Q Yes, sir, why don't you describe for us generally how you've come to apply that document.

A Okay. After the search at the Commission for an appropriate salt water disposal well, we were advised by counsel, our legal counsel, to obtain an agreement from the owner of the surface and the minerals and obtain an agreement, a contractual agreement, giving us the right to enter this plugged and abandoned well and the right to go

upon the surface of those lands and do our necessary work on the surface and downhole.

So we talked to the trustee of the W. Flint Trust Account, and received this contractual agreement, which we recorded, and this contractual agreement was worked out where we would pay the owner of the surface and the minerals a certain salt water injection per barrel rate of money, and worked out with her and signed, I think, on -- in August of '84 when we obtained this agreement from Lucille Daly, who is the trustee for the estate.

We obtained this on advice of legal counsel and our legal counsel advised us that this was all that was necessary to get the right to re-enter this non-entity, this plugged and abandoned well on this -- on this ground.

Q Who provided that advice to you, Mr. White?

A Mr. Chad Dickerson, our legal counsel.

Q Subsequent to obtaining what you thought was documentation to allow you to use the wellbore, did you present yourC-108 at the Oil Conservation Commission back in September of '84?

A Yes, we did.

Q And did you subsequently receive from the Commission an approval order for the use of the well as a disposal well?

A Yes, sir, we did.

Q Let me show you what I've marked as

Exhibit Number Three.

Now, subsequent to receiving the approval of the Commission to convert the well to disposal and prior to notification from Yates and the Division about the dispute, did you enter into activity to convert this well for disposal purposes?

A Yes, sir. Upon receipt of the Order we filed a -- for a re-entry with the District Office in Artesia, New Mexico, and we received approval to re-enter and do the work as outlined.

When we received approval, we rigged on the well and we did the necessary surface preparation to the well and then we took a bit and casing scrapper and cleaned out the plug.

We circulated the hole. We come out of the hole and ran a packer and pumped into the Atoka perforations, and came out of the hole and shut the well in in anticipation of obtaining right-of-way, surface right-of-way for our lines and pumps, and so on.

Q Let me now return you to the C-108 and to the schematic of the PanAmerican Flint wellbore that's attached in the C-108, and the schematic of the wellbore after you proposed to convert it to salt water disposal, and have you use those two schematics and describe for us what you have done and what the current status is of the wellbore.

A Yes, sir, I will. The first schematic is the -- is the wellbore prior to our entering the hole and

the first schematic was wrong in the plugs. There's a plug, the 25-sack plug was there over the top of the Atoka perforations.

And, Mr. Quintana, it's the first schematic prior to the conversion.

And that plug is over -- was over the Atoka Penn perfs, that 25-sack plug. There was a 10-sack plug around the dry hole marker, but we also encountered about a 50-foot plug right in the area where the base of the intermediate casing set and we cleaned that out, also.

So when we re-entered the well we found the dry hole marker in place and there was about a 50-foot plug at 1200 feet, and then we did encounter this 25-sack plug on top of the perforations.

We drilled through and cleaned out the perfs and tripped out of the hole and ran a packer back in on tubing, pumped in the perforations, tripped out of the hole, and sealed over the well with a valve and swedge in anticipation of getting approval from the Commission to run our 2-7/8ths plastic tubing and right-of-way from the other landowners in the area for our pipeline from the producing wells over to the water disposal well.

Q Let me ask you this. At the time that PanAmerican plugged the well, can you give us the footage depths of the various perforations that they had made in the wellbore?

A Well, Counsel, they had -- they did some

work. As I recall they did some work with DST's in the Abo zone and in an Upper Atoka zone, but the perforations that they produced from is the perforations as they exist 9094 to 9116, and that's the -- that's the zone that came in and produced gas commercially in the Atoka Penn. That's the perforations and the only perforations that's open now in the well.

Q When you removed the 25-sack cement plug above that interval did the gas from that -- from those perforations flow to the surface?

A No, we anticipated this and it can be -- it can be a very dangerous situation, and so we installed a blowout preventer and had the adequate manifold there to handle gas, which might have built up over years in that zone, and we did not encounter any gas; no sign at all of any gas.

Q Would you use the subsequent schematic now and tell us what additional activity is required by you to complete the conversion of the well for disposal purposes?

A Okay. Upon word from Yates Petroleum Corporation personnel that they had not been notified, furnished proof of notice, it was very shocking to Blanco Engineering, I might add. I hope that Yates Petroleum Corporation realizes that this is no fault of Blanco's, that we had depended on legal counsel to do our 108 and notify the proper authorities.

Upon that telephone call we still didn't believe it, so we researched our file and we found that they were not furnished proof of notice.

We called our attorney and we checked with Mr. Stamets up here in Santa Fe, and when Mr. Stamets told us that proof of notice had not been received by Yates and he had no alternative but to re-open the case, we understood that perfectly. We were very -- to say the least, we were shocked by it, but we at that time complied completely with Mr. Stamets' order, and we did not go back to this well, nor have we been anywhere near the wellsite.

So none of the work on the schematic number two has been accomplished nor done.

But we had planned, according to the schematic two, to fulfill the regulations and the -- and the proper technique mechanically. We had planned to perform this schematic number two; to run 2-7/8ths plastic-lined tubing, a nickel-plated packer, put on the monitor valves and pressure gauges on top, install our pumps and tanks, and have the Commission witness our -- our work as we proceeded.

But none of this has been done.

Q All right, sir. Mr. White, let me show you what I've marked as Exhibit Number Four and ask you to identify it.

A Counsel, this is the list which we have spent. This is the money that we spent to date from the time we received the order to go ahead with our work and --

and the time that we were -- we suspended operations because of Mr. Stamets' request.

Q Should the Examiner determine that Yates should have an opportunity to test the well for gas production, could you identify for the Division what portion of the cost that you have expended that would not have to now be expended by Yates in order to further test the well?

I don't mean that you have to go through each item --

A Right.

Q -- but can you generally tell us what portion of this amount of money would inure to the benefit of Yates in order to test the well for gas?

A I would say $35,000 of the total they would not have to expend to go into the well.

The -- the only item on there I see, Tom, the George Young Sales, that plastic-coated tubing, we've already bought some of that and they wouldn't have to buy that to test their well. They could use a cheaper -- to test the well they could use a cheaper tubing goods.

Q Should the Commission determine Yates should have the right to further test the deep gas zone, can you describe for us the timing, in your opinion as a petroleum engineer, that would be required in order to give them the reasonable use of this wellbore to test for the gas zones?

A Well, if they were going to test the Ato

ka Penn, present Atoka Penn zones in the well that produced, which, you know, in my estimation is the only zone that's commercial in the well, and if they were going to retest that zone, well, it would only be a matter of, probably, of running a packer and tubing and possibly stimulating the well and swabbing back, so I'm going to say certainly seven days.

Q What's required to accomplish that? What type of rig? Do you have to set a rig on the well?

A Yes, you'd have a completion rig, pulling unit, and tubing and packer, and certainly you'd have a -- if -- if the election was to stimulate the well, you'd need a service company with acid trucks, and so on, and then you'd use the same completion unit to swab back your fluids and get a test on the zone.

Q Let's continue through with the C-108, Mr. White.

You have attached to the C-108 rather than a tabulation of the wellbore information of wells within the area of review, you've simply attached the well information itself, have you not?

A Yes, sir, I have made copies of all of those wells in the -- in the half mile circle, Mr. Examiner, and just attached the Commission report to the 108.

Q And as we go through the 108 there are some chemical analyses and compatibility reports that were submitted.

A Yes, sir, we --

Q Would you describe those for us?

A Yes, sir. We took water samples of the Yeso and the Atoka zone, and we took water samples of any fresh water well within the area and submitted those samples to show that there was compatibility between the Yeso produced water and the Atoka water.

Q Was Exhibit One, the C-108, and its attachments prepared by you or compiled under your direction and supervision?

A Yes, it was, along with -- in conjunction with our legal counsel, Chad Dickerson.

Q All right, sir.

MR. KELLAHIN: If the Examiner plese, we move the introduction of Exhibits One, Two, Three and Four at this time.

MR. QUINTANA: Exhibits One through --

MR. KELLAHIN: Four.

MR. QUINTANA: -- Four will be admitted as evidence.

MR. KELLAHIN: That concludes my direct examination of Mr. White.

MR. QUINTANA: Any questions of Mr. White?

MR. CARR: I have just a couple.

CROSS EXAMINATION

BY MR. CARR:

Q Mr. White, on the reports that were filed by PanAm when they abandoned the subject well, did they indicate that there were no workover possibilities?

A Yes, sir they did. They -- the form reads this way: Well has watered out. In the compiling of the producing rates of gas, the well was producing 55-million and then 1-million. It doesn't deplete like a well that's depleted with pressure depletion. It's a water encroachment.

Well has watered out; unable to return to producing status. No workover possibility. Propose to P & A as follows. And then they give the proposal on their form filed just prior to the plug and abandonment.

Q Now to be sure we're all talking about the same thing, the name of the pool is the Atoka Penn.

A Yes, sir.

Q And the interval that we're all talking about is the interval from 9094 to 9116, and that's actually a zone below what we talk about as the Atoka formation, is that not correct?

A Well, the well is in the proration schedule as being the Atoka Penn Pool.

Q It's in the Atoka Penn Pool.

A Uh-huh.

Q But we can agree that we're talking about the perforated interval from 9094 to 9116 --

A Yes, sir, that's the perforated interval, Mr. Carr, in the Penn, yes, sir.

Q Do you have any other place to dispose of the water produced from these wells?

A No, sir, we do not.

Q You don't have any other possible disposal wells?

A No, sir, we do not at the present time.

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

MR. QUINTANA: I have no questions.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. White, I show you what I have marked as Exhibit Number Five. Is this the C-103 that you were referring to in response to Mr. Carr's questions?

A Yes, sir.

Q And where did you obtain that copy of that C-103?

A When I went over to the District Offices I researched the -- I researched the whole area trying to determine -- trying to come up with some candidates for salt water disposal possibilities, and in researching these, I 3-

starred this well because it was cemented to surface on the production string and the intermediate was cemented. It had very few plugs, no cement retainers, so that the cleanout was much cheaper and was simplier.

And so in researching the Commission files I came from the beginning of this well on through and came up with the fact that it had watered out; that there was no possibility that anyone would want to rework the well at all, and there's another zone on the log which we drill stem tested and it showed recovery of drilling mud, and so I chose this well because I thought, well, there's no workover possibilities.

And this form was filed and executed and then the well was plugged, and that's how I came up with this form, out of the District files with the Commission.

Q Well, approximately how many wells did you examine as possible candidates for disposal of water?

A Well, Tom, I think I probably looked through about 20, 20 wells.

Q And in your opinion was this the one most suitable from a re-entry standpoint for disposal?

A Yes, sir. I had -- I had studied the Yates Petroleum Gushwa, Bob Gushwa, and the Yates Petroleum Dayton Townsite Wells and they were disposing water in this interval, at least in my opinion, and so I felt like this would be the excellent candidate.

It's deep. It's a deep well and the Com-

mission has shown a willingness, if the well is deep and cased, they've shown much more of a willingness than to put it in a shallower zone.

So it fit the picture, as I could see it, perfectly.

Q Would you turn to the plat in the C-108 and identify for us the Yates disposal wells in this interval in the immediate area? Can you do that for us?

A Well, in that area, Counselor, they -- Yates Petroleum Corporation is disposing of produced water in their Bob Gushwa Well, which if you'll look in Section 21, it's in that section, Mr. Quintana, where Dayton Townsite is, and it's located 1650 from the south line and 1650 from the east line in Section 21, which puts it a little over a mile away from this Flint Well.

They're also disposing of water in their Dayton Townsite Well, which is in the Atoka Penn Pool.

It's located 1980 from the north and 1980 from the east lines of Section 21.

The Bob Gushwa Well, as of August, had had about, approximately, 3-1/2 million barrels disposed of in the Gushwa Well and the Dayton Townsite Well, as I understand it, has just been approved by the Commission for disposal.

Q Your proposed disposal in the Flint Well is to be in the zone that's similar to those used by Yates in their wells?

A It's exactly the same zone.

Q All right, sir.

MR. KELLAHIN: I have nothing further.

MR. QUINTANA: Did you make this an exhibit?

MR. KELLAHIN: I'm sorry. I move the introduction of Exhibit Number Five.

MR. QUINTANA: Exhibit Five will be entered into evidence.

Any more questions?

MR. CARR: No further questions.

MR. QUINTANA: Mr. White, I have no further questions.

Are there any further questions of the witness?

If not, you may be excused.

A Thank you, Mr. Examiner.

MR. QUINTANA: All right, Mr. Carr.

MR. CARR: At this time I'd call Randy Patterson.

RANDY G. PATTERSON,

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

DIRECT EXAMINATION

BY MR. CARR:

Q Would you state your full name and place of residence?

A My name is Randy G. Patterson. I live in Artesia, New Mexico.

Q Mr. Patterson, by whom are you employed and in what capacity?

A I am employed by Yates Petroleum Corporation of Artesia, New Mexico, as their Land Manager.

Q Have you previously testified before this Commission or one of its examiners and had your credentials as a landman accepted and made a matter of record?

A Yes, sir, I have.

Q Are you familiar with the application filed in this case by Blanco Engineering, Inc.?

A Yes, sir.

Q Are you familiar with the PanAmerican Flint No. 1 Well and the surrounding acreage?

A Yes, sir.

MR. CARR: Are the witness' qualifications acceptable?

MR. QUINTANA: Yes.

Q Mr. Patterson, what does Yates Petroleum Corporation seek in this case?

A Yates Petroleum Corporation seeks a de-

nial of the application to use this well as a water disposal well, since it has plans to re-enter the well itself as a producer.

Q Have you prepred certain exhibits for introduction in this case?

A Yes, sir.

Q Would you refer to what's been marked for identification as Yates Exhibit Number One, identify this, and review it for the Examiner?

A This is a land plat showing the 9-section area surrounding the subject well.

The yellow shaded acreage is acreage which Yates owns all or partial interest and for the most part is the operator of all that acreage.

The red spot in the northwest/southeast of Section 22, Township 18 South, Range 26 East, is the subject well, PanAmerican Flint Gas Com No. 1.

Q Mr. Patterson, when did Yates first learn of Blanco's plans to convert the PanAmerican Flint No. 1 to a salt water disposal well?

A Our first knowledge of these plans was around December 15th.

Q And how did you discover --

A 1984.

Q And how did you discover this?

A Our management had decided to re-enter the well to make a gas well. They sent a -- one of our em-

ployees to the OCD Office there in Artesia to gain some location -- gain information about the location and any other information that we might not have had.

At that time the gentleman was informed that there was an order on file that permitted the salt water disposal and that the well was in use.

And prior to this we had no knowledge of it.

Q Would you now refer to what has been marked as Yates Exhibit Number Two and identify this, please?

A Exhibit Number Two is a copy of Oil and Gas Lease, dated October 21, 1975, between Elaine Flint and Carl Schillinger on the subject property, north half southeast of Section 22.

The next, or third page, actually, is an assignment from Carl Schillinger and his wife into a Mr. David Garland, and then the next page is the assignment from Mr. Garland into Yates Petroleum Corporation, Abo Petroleum, Yates Drilling, and MYCO Industries, all of which are Yates companies.

Q What is the current status of this lease covering the north half of the southeast quarter of Section 22?

A Well, it's a held by production lease.

Q Would you summarize for the Examiner Yates' plans for development of this acreage?

A Yes, sir. We plan within the next six months to re-enter the subject well and make it into a producer of natural gas.

Q And what acreage will Yates propose to dedicate to the well?

A It will be a south half location.

Q In what formation would this well be completed, in your opinion?

A I'm not a geologist, but my understanding is that it would be in the Morrow.

Q And there will be another witness who will testify as to the exact horizon.

A Yes, sir, that's correct.

Q Were Exhibits One and Two prepared by you?

A Yes, sir, and under my supervision.

MR. CARR: At this time, Mr. Quintana, we would offer Yates Exhibits One and Two into evidence.

MR. QUINTANA: Yates Exhibits One and Two will be entered into evidence.

MR. CARR: Pass the witness.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Patterson, would you describe for me what it is that you do for Yates Petroleum Corporation?

A I am the Manager of the Land Department. I supervise the land related activities of Yates Petroleum, and their entities.

Q When did -- you testified that Yates planned to re-enter the well. When did Yates' management formulate the decision to use this well for a re-entry candidate?

A Yates had considered re-entering this well numerous times over the past year. It was a low -- low priority project, not low priority, however it was not as high a priority as some others, expiring leases, and what not. This was an HBP lease, so therefore it was a little bit lower.

Other conversations that I was not privileged to, but I understand took place. It's been considered prior to that.

Q Who makes those management decisions for Yates Petroleum Corporation?

A The Yates brothers themselves.

Q And which Yates brothers are you talking about?

A John Yates, S. P. Yates, and Martin Yates, III.

Q Has Yates attempted to make re-entry attempts in either the Gushwa or the Dayton Townsite Wells prior to utilizing them for salt water disposal?

A I believe our other witness is going to

testify to that.

Q Do you know of your own knowledge whether Yates attempted to do that in either one of those wells?

A I believe that we did, yes.

Q And were you able to make an economic well from any of the deeper gas zones for either of those wells?

A To my knowledge, we did; however, that testimony will come on later.

Q Do you know whether or not those wells are being utilized by Yates as disposal wells?

A Yes, sir.

Q And what is the answer?

A They are being used.

Q Do you know, Mr. Patterson what the minimum economic criteria is for your company with regards to whether or not they will complete a deep gas well as a commercial well?

A Well, we're just like any other company. We expect to make a profit when we -- when we do something.

A re-entry, of course, is less cost than drilling a well top to bottom.

Q Yes, sir, and in making the judgment to re-enter this well, what was the cost that Yates used with regards to the re-entry amount?

A It would be approximately $125,000.

Q In order to pay out the re-entry costs

and to pay Yates the profit it requires on this type of prospect, what would be the minimum daily volume of gas that would have to be produced from this well?

A Well, I would have to calculate that. I'm not prepared to testify to that.

Q In the course of performing your function for Yates are you aware of whether or not there is a custom and practice within your company concerning the abandonment of low volume deep gas wells?

A Our company makes a practice of getting all of the gas or oil out of a well that they possibly can.

Q All right, sir, and for a deep gas well in this area, approximately what abandonment pressure is used before you stop producing a well?

A I'm not qualified to testify to that.

Q You don't know?

I think you've answered it already, Mr. Patterson, you're not prepared today to share with us any of the economic evaluations that your company has prepared in order to determine whether it's economic for your company to re-enter this prospect.

A I'm not prepared to testify to that.

Q All right. Are you in charge of filing the re-entry permits with the Oil Conservation Division for the Yates wells?

A My department is.

Q Yes, sir, and has a re-entry permit been

filed by Yates for this well?

A No, we did not file a permit when we found out that we had a problem.

Q You had not yet filed the permit prior to the time you realized that --

A Our man went to the Commission to obtain information so that he could file the permit.

Q And then learned that it has already been subject to the disposal well.

A That we had a problem, yes, sir.

Q All right, sir. In the event the Commission should allow Yates an opportunity to re-enter the well and test for the deep gas, and should that test be unsuccessful by whatever standard it is judged by, do you have any difficulty in allowing, then, Blanco to use that wellbore for disposal purposes?

A I really have not discussed that possibility with the management, so I wouldn't be authorized to -- to answer that.

We had assumed that it will make a gas well, so we haven't discussed the possibility of a failure.

Q Have you had an opportunity to review Mr. White's estimated costs. They're not estimated costs, actual costs he's expended in the utilization of the wellbore for disposal purposes to determine which of those amounts would not now have to be expended by you if you re-enter the well?

A I reviewed it very quickly; however, there were charges on there that I didn't know what the nature of them were, so it would be difficult to -- to say anything without an analysis of the -- what the charges are.

Q Are you in a position to tell us whether or not Yates is prepared to reimburse Blanco for certain of the expenses that they incurred in cleaning out plugs and whatever that you now not have -- do not have to undertake should you be allowed access to the wellbore?

A No, sir, that has not been discussed with the management.

Q Thank you.

CROSS EXAMINATION

BY MR. TAYLOR:

Q When you all get notice for hearings before the Conservation Commission, are those notices sent to you or are they normally handled by an out-house attorney -- out-of-house --

A Out-of-house?

Q -- attorney?

Or are they received by counsel?

A You're asking a question about notices given from an operator who would be doing something as an offset or on a lease of ours?

Q Either notices of that kind or notices that would affect you or notices, copies of dockets, of the

Commission that may be sent out?

A Normally I receive those notices and discuss those with management.

Q Is Mr. Dickerson the -- the counsel for Yates in most instances, or could you explain how that works?

A Well, we use -- we use numerous people, but by and large the Losee, Carson and Dickerson firm has been our main law firm.

Q And do they normally, if they become aware of a situation where Yates would be affected, is it his normal responsibility to give Yates notice of that? Does he take care of it on his own or does Yates get notice of that in-house?

A Well, we -- we expect to get notice on our own. They do our work but we communicate a lot. We talk about a lot of things and I don't know really how to answer that question. I don't -- would you ask me again. I don't quite understand it.

Q Well, I'm trying to determine whether through counsel you should have or you did, in fact, have knowledge that this application was pending and in fact had been heard.

A Our -- Losee, Carson and Dickerson did not inform us that we had anything to do with this case, if that's the question you're asking.

Q At no time was anybody in Yates ever ap-

prised of the situation.

A No, sir.

Q Until you discovered it on your own at the offices of the OCD?

A That is my understanding. I didn't talk to all the 200 people who work for Yates but that is my understanding and management did not know anything about it, upper management and middle management.

Q Did you have anything to do with the acquisition of these assignments of this lease?

A No.

Q Do you know why in the normal course of business you might go around and acquire leases that are to be drilled and I assume the lease expired, the original lease expired?

A We -- we acquire leases all over the State of New Mexico and all over the western United States.

We acquire numerous leases with dry holes on them, with plugged and abandoned wells.

We consider that any plugged and abandoned well has potential for re-entry.

We buy them as leases at the State Land sale for that reason.

We buy leases from private individuals and that's part of our operation, is to buy leases and check plugged and abandoned wells.

Q Do you ever acquire leases in order to --

do you assume that when you acquire leases you have a right to plugged and abandoned wellbores on them?

A Well, that's a legal question and I don't --

Q Well, let's say --

A -- I don't know the answer.

Q If you normally acquire leases with plugged wells on them and you do tht for the purpose of re-entering them, is that usually specifically defined in that lease or do you just assume when you get that lease that you're getting that right, or how is that determined?

A Standard industry practice has been in the years that if you have a lease with an abandoned well on it, you have a right to re-enter that well.

Q For purposes --

A And many people have done so.

Q For purposes of re-entering for production, as well as purposes -- as well as for purposes of injection or reinjection of produced waters?

A Well, if you have an oil and gas lease, for purposes of production.

Q Did you observe any consideration by Yates of using this well for injection?

A We wanted, just like we did at the other wells, to try the gas and/or oil production before we would inject water into it. We do that with any well that we go into for salt water disposal.

Q Had there been active consideration, however, of an injection program in this well?

A To my knowledge, no.

Q When, to your knowledge, when was the first discussion in Yates of re-entering this well?

A There's been discussion for several months but I can't pin it down to a date.

Q All right.

A There's been discussion in our Engineering Department. They've been wanting to do it and it's been considered. Management has talked about it.

Q Do you know if any of these considerations were presented on paper, either memos or -- or letters, looking into the possibiity of re-entering the well?

A Well, you have to know how our organization works to appreciate that we don't send interoffice memos or things like that; we talk about it.

Q So normally consideration of that kind would have been by word of mouth.

A Yes, sir.

MR. TAYLOR: I think that's all the questions I have.

MR. KELLAHIN: Everybody else finished? I have a few more questions if it's my turn.

MR. QUINTANA: You may proceed, Mr. Kellahin.

RECROSS EXAMINATION

BY MR. KELLAHIN:

Q The dockets for the Oil Conservation Division, such as today's docket, do they go to your attention at Yates?

A Yes, sir.

Q When you receive that docket what is the process that you go through in determining whether or not Yates is affected by any of the cases that are pending on that docket?

A I usually read the docket, more particularly to see if we have a case that we are a party to coming up at a certain time for scheduling purposes.

I do not pull a map on each case and look for -- specifically for offending cases because any offending case we should receive notice.

Q Let me ask you this: If there is an unorthodox well location case on the docket that crowds Yates' acreage, how do you determine if -- how you're affected by that case?

A Sometimes -- sometimes we do not -- don't pick them up.

Sometimes, many times we get notice, courtesy notice from the operators. In fact, I'd say in most cases we get notices or we get calls. I get a lot of calls from somebody, we want to go unorthodox, do you all

have any objections?

We'll look at it, sometimes a hard look, sometimes a short look, and we'll call them back and say, no, we don't have any objection, and maybe, well, we wouldn't have any objection if you do thus and such, and we talk about it.

But usually we get notices.

Q Are you aware of any employee in Yates Petroleum Corporation that had any of those kinds of discussions or conversations with Mr. White, Mr. Dickerson, concerning the salt water disposal application last September?

A I am not aware of an employee that discussed this with them.

Q Did you make an effort to determine within your company whether any of the people had those kinds of conversations?

A Yes. The entire, to my best knowledge, there was not.

Q Did you review the docket for September --

A Could I add to that?

Q Yes, sir.

A I feel like, and I'm sure, that management, specifically the Yates brothers, would have raised an objection at that time had anybody pointed out the fact that this was going on.

Q In reviewing the docket for September

5th, 1984, were there not Yates Petroleum Corporation cases on that very docket?

A Yes, there was.

Q Do you recall which of the Yates employees were sent to Santa Fe for that docket hearing?

A Yes, sir, it was one of our landmen.

Q Do you remember who that was?

A I believe it was Janet Richardson.

Q Do you remember if Mr. Dickerson was with them?

A Yes.

Q At that hearing? He represented Yates at that hearing?

A Yes, he was.

MR. KELLAHIN: I have nothing further.

MR. QUINTANA: Mr. Patterson, you may be excused.

MR. QUINTANA: Let's take a lunch break.

We'll take a lunch break until 1:15.

(Thereupon the noon recess was taken.)

MR. QUINTANA: The hearing will come to order.

MR. CARR: We call Dave Boneau.

DAVID FRANCIS BONEAU,

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

DIRECT EXAMINATION

BY MR. CARR:

Q Would you state your full name and place of residence?

A My name is David Francis Boneau. I live in Artesia, New Mexico.

Q By whom are you employed and in what capacity?

A I'm employed by Yates Petroleum Corporation as Engineering Manager.

Q Have you previously testified before this Commission or one of its examiners and had your credentials as a petroleum engineer accepted and made a matter of record?

A Yes, sir.

Q Are you familiar with the application filed in this case by Blanco Engineering, Inc.?

A Yes, sir.

Q Are you familiar with the PanAmerican Flint No. 1 Well?

A Yes, sir.

MR. CARR: Are the witness' qualifications acceptable?

MR. QUINTANA: Yes, they are.

Q Mr. Boneau, Mr. Boneau, have you prepared certain exhibits for introduction this afternoon?

A Yes, sir, I have.

Q Would you please refer to what has been marked for identification as Yates Exhibit Number Three and review that for Mr. Quintana?

A Yes, sir. Exhibit Three is a map of the area in question. It covers the nine sections surrounding the Flint No. 1.

Marked in red is the subject well and the two wells in Section 21 that Yates now uses as salt water disposal wells are marked with blue dots.

Q Now does this show all wells in the area?

A No, sir. This -- this map was prepared to show the deep wells, and by "deep" I mean below -- wells that penetrated below 8000 feet.

That is 20 wells drilled below 8000 feet. Also included, one well in Unit B of Section 29 that TD'ed at 6262, and that was included because it was referenced in the original testimony back in 1984 in this case.

Q Mr. Boneau, would you now look at the two wells in Section 21? Did Yates attempt to complete these as -- as producing wells prior to conversion for disposal purposes?

A I think that recompletion is not the appropriate term, but Yates produced those wells down to quite a low pressure and to an advanced stage of depletion before they were abandoned.

They were both -- they were both Morrow producers and Yates produced gas out of the Bob Gushwa until 1976, and Yates produced gas out of the Dayton Townsite until 1983.

You'll recall that the Flint was abandoned in 1970.

Yates installed compressors on these two wells so that their productive life could be extended and Yates was quite successful in, you know, producing what you would call "extra gas" over the -- if you take the Flint as a base case, so that in the Dayton Townsite and Bob Gushwa between one and two bcf of gas was produced out of those wells by Yates by using compressors and that is gas past the point when the bottom hole pressure and the tubing pressure were at levels equivalent to the point where the Flint was abandoned.

Q Now, Mr. Boneau, into what interval is Yates disposing water in each of those wells in 21?

A Yates is disposing of water into the Morrow formation in those two wells.

Q And does this zone correlate with the zone from which you propose to produce gas in the Flint No. 1?

A It's roughly the same interval on the logs, yes, sir.

Q Do you believe that the salt water disposal in Section 21 will adversely affect the effort to recomplete in the Morrow in the Flint No. 1?

A No, these wells are in separate Morrow channels. Morrow exists in channels, as is well known, and the -- our geologists believe that these are completely separate channels.

Along that line the water injection into the Bob Gushwa from 1976 until the time the Dayton Townsite was abandoned in 1983, did not adversely affect gas production from the Dayton Townsite.

Q Will you now refer to Yates Exhibit Number Four, which is a portion of a log and review that for Mr. Quintana?

A Exhibit Number Four is a portion of the log from the subject well, Flint No. 1. It shows a top of the Morrow Clastics at approximately 9010 feet, I believe, and its the subsurface, corresponding subsurface depth is given there.

The exhibit shows where the well has been perforated and it simply makes clear that that interval from 9094 to 9116 is the interval that the well produced gas out of from 1969 through '70. It's the interval that Blanco proposes to inject water into. It's the interval that Yates proposes to produce gas from. The same interval, I call it

-- we call it Morrow.

Q Would you now refer to Yates Exhibit Number Five and identify that?

A Okay. Exhibit Number Five is a State form, I believe it's still called a C-104, and its purpose is simply to show that the perforated depth in 1960, 1959 when the well began production was this interval that was marked on the previous log.

It's a form for the subject well, Flint No. 1, and it may have been made clear in previous testimony, but the point is just that we're talking about this one Morrow interval for previous production, possible injection, re-entry by Yates Petroleum for gas production; same interval.

Q Now, that, the interval that's reflected is the perforated interval on Exhibit Number Five, that's the interval you propose to recomplete in, is that correct?

A Yes, sir, that's correct.

Q Do you have plans to attempt to complete in any other zone?

A One of our engineers thinks that there's a -- well, the one of our engineers who's in charge of this area thinks there's a chance in the Wolfcamp interval and I feel that we would attempt a completion in that Wolfcamp interval before we abandoned the well for production.

Q Have you reviewed information that's available on the PanAmerican Flint No. 1 Well?

A Yes, sir.

Q Do you know what rate it was producing at at the time it was abandoned?

A It was producing at a rate of -- rate of at a million cubic feet of gas per day and a water rate of approximately 5 barrels of water per day.

Q If this well were to produce at that rate upon recompletion, do you believe that that would justify your re-entry of this well?

A Yes, that type of production would pay out our re-entry costs pretty quickly in a matter of months.

Q What factors have changed since March of 1970 that make this prospect more desireable today than it was at that time?

A There are a couple of factors that have changed since -- since that time.

MR. KELLAHIN: I'm sorry, what was the date?

MR. CARR: March of 1970.

A One factor is that gas prices have increased approximately about tenfold.

A second factor is that Yates now has the experience of operating wells like the Dayton Townsite and the Bob Gushwa with compressors successfully and recovering similar amounts of more or less additional gas from wells very close nearby.

And the third factor, we feel that is

different is that Amoco, at the time, was producing the well through approximately a 10-mile small diameter line to their Empire Abo Gas Plant on the east side of the river, and we feel that their friction losses and their compression charges and transporting the gas by themselves through this long line was a factor in their decision to abandon the well.

Q Mr. Boneau, what was the pressure in the PanAm Flint No. 1 at the time of abandonment?

A The latest pressure reported to the State for the shut-in tubing pressure, that was in 1970, the year it was abandoned, was more than 1300 pounds.

Q And what was the pressure in the wells that you're disposing in in Section 21 when production ceased in those wells?

A The shut-in tubing pressure in those wells was below 500 pounds when production ceased and we've produced wells of that type down to maybe 100 pounds tubing pressure in exceptional cases.

Q Mr. Boneau, based on the data you have on the PanAm Flint No. 1 Well, have you made an estimate of the additional gas that you think you can produce from it?

A When the Flint No. 1 Well was abandoned in 1970 it contained between 1 and 2 bcf of additional gas that could be recovered by the compression techniques used on the Dayton Townsite and the Bob Gushwa.

Q Do you believe that the wellbore can be used for -- successfully for a re-entry?

A Yes, I thought there could, and it sounds like Blanco has come pretty close to demonstrating that it could.

Q What do you estimate the cost of the re-entry to be?

A Well, our estimated costs for us doing the job from scratch was $125,000.

Q Does that include stimulation?

A That includes stimulations and surface facilities.

Q Do you concur in statements that this well in fact watered out?

A I don't believe this well watered out. If you examine the -- not only the State's statistical books but if you examine the C-115 reports for the period of time back in 1970, 1969, you'll find that, as I stated, the well produced at a rate above a million cubic feet a day over a long period of time.

It was producing above that in was it March of 1970, and on a thirty day basis it produced approximately 1100 mcf of gas per day and 5 barrels of water per day.

In April it produced one day. It produced over a million cubic feet and 6 barrels of water that day.

It produced nothing additionally. There was no evidence that in a -- I'm getting ahead of myself a

little bit.

The well had produced water in -- a few barrels a day for on the order of two years previously. That water production did not increase. The gas rate per day did not decrease. The well was simply turned off is my conclusion from what I've been able to find, and I looked at not only the State statisticals but I had the individual C-115's for those months back in 1969, 1970.

Q What action do you recommend the Commission take on the application pending before them in this case?

A I think that the Commission must give Yates a chance to produce this gas from the Morrow interval or some other Pennsylvanian intervals. So I think that the Commission needs to deny Blanco's application so that Yates has this opportunity.

Q If this application is granted, what effect would it have on the correlative rights of Yates Petroleum Corporation?

A If Blanco injects water into this Morrow zone, no one will ever be able to even have a chance of recovering this 1 or 2 bcf of gas and the rights to that gas will obliterated.

Q Do you believe that granting the application would cause waste?

A Yes, sir.

Q Were Exhibits Three through Five prepared

by you or compiled under your direction?

A Yes, sir, with the proviso that Exhibit Five is simply a copy of a State form.

MR. CARR: At this time, Mr. Quintana, we would offer into evidence Yates Petroleum Corporation Exhibits Three through Five.

MR. QUINTANA: The Exhibits Three through Five of Yates Petroleum Corporation will be entered into evidence.

MR. CARR: And that concludes my direct of Mr. Boneau.

MR. QUINTANA: Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Quintana.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Boneau, let me direct your attention to your Exhibit Number Three, just to aid us in keeping track of the three wells I'd like to discuss with you.

Let me direct your attention, first of all, to the Dayton Townsite well. Was that a well that Yates drilled?

A Yates did not drill that well. That well was drilled -- I'm checking my notes to be sure I'm correct -- that well was completed 11-19-1960, November 19th, 1960.

Yates took over operation of the well

from Olson Production on March 3rd, 1962, and Yates has produced the well since that time.

Q What was the status of the well when Yates took it over from Olson?

A As best I can tell from our generation of records, it was a very good producing Morrow gas well.

Q You took it over while it was still producing as opposed to taking over a well that was temporarily abandoned?

A That's absolutely correct, yes.

Q Did Yates, when it took over the well in '62, I assume produce the existing perforations in this Morrow interval?

A That's correct, yes.

Q To what date, then, did they do that?

A It was sometime in 1983. I can find the exact -- well, I can find at least the month here, if it's important enough that I look for a few minutes.

January, 1983, is the last month that Yates produced gas out of that Dayton Townsite.

Q Did Yates attempt to perforate other zones in the deeper gas intervals in the Dayton Townsite Well at the end of that production period?

A Yes. Yates perforated additional Morrow zones; some additional deep zones; not Wolfcamp. They did put some additional perforations within 100 feet or so of the -- of previous perforations and got no additional gas;

either it wasn't there or they -- those stringers had been drained by the original perforations. I'm not sure, but they did perforate some additional Morrow zones.

Q All right. What was the producing rate in the last month of production for this well on a daily basis?

A Oh, we produced 332 mcf in that month. I do not know how many days that was but my recollection is that the well produced roughly 100 mcf a day when it died.

But the previous six months it produced between 600 and 300 mcf per month, so it was producing at a low rate.

Q Is it fair to characterize the level of daily production at abondonment at approximately 100 mcf a day. Give or take?

A That's a good talking around number, yes. Might be as low as 50, or you know, 110, something in that area.

Q Is there a rule of thumb that you use or that Yates uses in determining at what point it will abandon a deep gas well such as the Dayton Townsite Well?

A Like most people, our general rule is when we're making money, when our monthly expenses are less than our monthly income, we continue to operate the well.

The expenses of operating a compressor are, of course, more than the operating expenses for a gas well that doesn't require a compressor.

If you -- you have to work -- you can work out the numbers for each individual well, but in general 50 or 100 mcf a day will support a marginally profitable operation.

Q Did you have a compressor on the Dayton Townsite Well at abandonment?

A We had a compressor on it until very close to abandonment. I won't swear it was on the day it was abandoned, but it was -- it was on until the time that we tried to recomplete these other zones.

Q The Dayton Townsite Well then was subject to compression and pumping and whatever else that you thought you should do to it prior to abandonment and we let that well --

A We nursed and milked it real hard, yes, sir.

Q And we got it down to a rate of somewhere around 100 mcf a day and then you cut it loose and used it for disposal purposes, is that a fair characterization of what you did?

A That's a good synopsis of a sort.

Q What was the abandonment pressure in that well? Can you tell us that?

A The last shut-in tubing pressure reported to the State was 170 psi in 1979. Thereafter it was exempt for some reason I really can't tell you, but it was -- it operated several years past the point where its shut-in tub-

ing pressure was 170 pounds.

Q Has this well -- this well was subject to a Commission or Division hearing last summer of this year and has been approved as a salt water disposal well in this interval.

A That's correct.

Q Are you yet disposing of water into that well?

A Water injection into that well began October or November of 1984.

Q Does Yates currently need or project a reasonable future need for an additional disposal well other than the current wells they use for disposal of Yeso water?

A If we project long enough the answer has got to be yes, but in the time frame that we operate, the answer is no, we've not active plans to get another disposal well in this area at this time.

Q How far in the future do you anticipate the Gushwa and the Dayton Townsite Wells to fulfill your needs in the area for disposal purposes?

A I'm very bad at predicting beyond two or three years (not clearly understood.)

Q Let's turn to the Gushwa well. Is that a well that Yates drilled?

A That well was drilled by Yates Petroleum, yes, sir.

Q Approximately when was this Gushwa Well

drilled?

A The first part of 1951.

Q And did Yates produce that well all the way through the abandonment of the well in the Morrow?

A Yes, sir.

Q When did that take place?

A Approximately 1976.

Q All right. What was the producing rate on a daily basis when the well was abandoned in '76?

A The last month of production was September of 1976. Total production for that month was 1179 mcf. Again I don't know exactly how many days it was operated but that was -- it was producing at near that rate for the last year of its life, and so that's going to be 50 to 100 mcf a day, again.

Q And approximately what was the last pressure, and the type of pressure, taken on the well?

A The shut-in tubing pressure on the Bob Gushwa and reported to the State in 1976 was 445 psi.

And that number agrees with another pressure I have from about the same series that was not reported to the State.

Q Approximately when did Yates convert this well for salt water disposal?

A In the last part of 1976, more or less immediately afterwards.

Q Are the cumulative total production of

the Dayton Townsite Well and the Bob Gushwa Well, are those representative of the type of recoveries we can anticipate in this area for production out of this Morrow interval?

A I would say yes and the numbers are on Exhibit Three, you can more or less review for yourself. There's a 12 bcf well, an 8, a 5, a 6, a 2-1/2, a 5, another 5, and another 6, and several poorer wells.

But a 5 bcf well is not unusual in this area, because there were some really good gas wells there, is what they were.

Q The Bob Gushwa Well produced 3.4 million, mcf. I think that's what it says on here.

A 5. --

Q I'm sorry, 3.4 --

A No. Bob Gushwa it says 5 --

Q I'm sorry, 5.4 billion it says.

A -- .4 billion and the 3.4 number is more or less how much water has been injected into it.

Q All right, sir. When we look across in Section 22 at the Flint No. 1 Well, we see an ultimate gas recovery from that well that exceeded the Bob Gushwa Well. Is that what that number is, the 5.6 billion?

A More gas was produced from the Flint Well than the Bob Gushwa. That is correct.

Q All right.

A Slightly more.

Q Based upon your review of these wells in

this area, do we encounter Morrow wells that have their production terminated by being subject to the influx of fluids, such as water?

A I found no wells that I would characterize that way. I did not look at total detail of all 20 of these wells and I obviously did not look at the thousands of Morrow wells in southeast New Mexico, but the Dayton Townsite did not water out; the Bob Gushwa did not water out; and then I've explained why I don't think the Flint watered out.

Q You said earlier that you thought one of the engineers had expressed some optimism in the Wolfcamp interval in the Fling well, and I think you were very careful to make that statement on behalf of someone else and not your own opinion.

Do you have an opinion that agrees or disagrees with this statement by somemone I do not know?

A The statement was made by an engineer named Eddie Mahfood, whose area of responsibility includes this area.

I frankly have not -- I don't -- I have not looked on the log at the zone he has in mind and I have not made an independent investigation foot by foot of the log. I have no way to answer your question in that I haven't looked at it myself.

Q When you talk about the cost of the reentry prior to the Blanco workover of the well, you esti-

mated for us $125,000.

Does that include the cost of a compressor, pumping, or any other additional equipment that you would propose for the well?

A It does not include the cost of a compressor. The cost of a compressor would be relatively insignificant because we would move a used one from another Yates well there and would not spend whatever it is, $30 to $40,000 to buy a new one, so maybe $15,000 should be added to that number, possibly.

Q Okay. Mr. Carr asked you what actions by the Oil Commission would Yates endorse, and I believe you said a chance to have Yates test this Morrow interval again for production of gas.

Can you describe for us what type of test you would conduct to determine whether or not you would want to continue to utilize this well for gas production, and what are the criteria you might propose for allowing that test to take place?

A I'm not sure I understood the last part of the question but --

Q Okay, let's start with the first part, then.

A We would -- we would re-enter the well and run tubing and packer. We would swab the well for several days. We would run a pressure build-up for three to five days to see what pressure it was and what the pressure

was building to.

We would, you know, make some -- make some decisions along the line, but we would be sure the perforations were open, do some sort of small acid job. If we had some pressure we would probably treat the well with 1 or 2 or 3 or 4,000 gallons of acid just to make sure we got back past any blockage that had developed over the 14 years, or something.

We might possibly fracture treat the well and I -- and I believe that the cost for a $25,000 frac job is included in our AFE.

So would -- we would take 3 or 4 shots at it and then swab it back and see what we -- John A. Yates believes that there's a lot of gas there and we would look very hard for that gas.

Q I now know the process that you would go through. Could you assess for us the period of time in which that activity could take place on this well?

A I'd estimate that we would -- from the start to the end of this procedure would be four to six weeks and we might spend some similar time testing an upper zone, you know. We might be on the well as much as three months, you know.

Q In analyzing the information that is derived from such a test is there a minimum pressure or production rate below which you would say that it's not worth it, guys, let's pull off of this thing and give up?

A Well, you asked Mr. Patterson a similar question and -- and I may be more qualified to at least think it out with you. I can do that, but you're going to get a dollar or two, say Two Dollars for the gas. If you could get 250 mcf a day we could pay out the recompletion easily within a year, that would be very acceptable. You --

Q All right, let me interrupt you. Can -- what gas price do you want to use for calculation?

A Say $2.00 gas.

Q All right, $2.00 gas.

A Say 250 mcf a day, that's $500 a day, 140,000, 280 days, say a year.

That would be very acceptable. We, you know, we then could nurse it on down to 50 mcf and probably produce it for 2, 4, 6 more years. Who knows?

Q You talked about the pressure build-up test. Are you talking about something that is like a 72-hour deliverability test?

A Oh, no. We're talking about putting a pressure measuring device in the bottom of the hole, an Amerada bomb, and, you know, measuring the pressure versus time at the bottom of the hole and extrapolating it to future times.

Q What would be an appropriate method to measure the deliverability of the well after its gone through the workover process? Can we use a 72-hour deliver-ability test to determine whether this well is economic for

Yates?

A We're going to test it on the basis of what gas can we get to flow at the surface.

Q Yes, sir, and how do you make that test?

A We put a choke in the tubing at the surface and a pressure gauge and measure the pressure and know the size of the orifice it's flowing through, and you can calculate that gas rate, and we would be flaring gas through this test.

Often these tests are as short as 12 or 24 hours, and sometimes 72 hours.

Q Okay, within a 72-hour period, then you could determine the rate at which the well would produce to a rate that you're comfortable with economically, and you could base a decision about whether you would abandon the well or continue to produce the well.

Is 72 hours a reasonable period of time to judge from some pressure test?

A I have mislead you or somewhere along the line a little bit, not very seriously, I don't believe.

We would do these things at the bottom of the hole: Swab, treat, frac, whatever, and after each day we would attempt to get a surface -- a flow at the surface, and measure that flow rate, mcf per day, and if we could get it over a 72-hour period at each day, that would be completely satisfactory.

So we try one downhole operation and see

what we got for 24, 48, 72 hours.

We try another downhole operation, swab the well back in, see what we got for 72 hours.

And through the three or four items that I mentioned trying.

Q My trouble is after you go through these operations I want to know what the rate is by which you judge whether you're going to give up or whether you've got a well.

A I think if we had a rate below 100 mcf a day my recommendation would be to give up.

If we had a rate 2 or 250, 300, 400 thousand a day --

Q You would try a little more.

A We'd put it on production, you know, 120 or 130 or 152, or some numbers in there are gray areas that --

Q I wanted from you a rate below which there is no question in your mind that we're wasting our time, money, and effort, to get us below the gray area, and you have said that that number is something less than --

A Yeah.

Q -- 250 mcf a day. What is that number below which you would --

A Okay.

Q -- give up?

A If I had tried all these procedures that

I talked about and none of them yielded a rate above 100 mcf a day, I would recommend giving up.

It goes without saying that John A. Yates doesn't always take my recommendations.

Q Nor does he always give up.

A Yeah, that's off the record, I think, no, it's okay. It's not a "that's tough" or any of those things.

MR. KELLAHIN: Thank you, I have nothing further.

MR. CARR: I have nothing further.

CROSS EXAMINATION

BY MR. QUINTANA:

Q I have a question.

Mr. Boneau, if the OCD determined that there were recoverable amounts of gas in this well we're talking about, how soon would you start -- would you estimate you would start up with testing of this well?

A I'm not sure how long the paperwork would take. After the paperwork was settled, and maybe you and Randy could judge the paperwork time better than I, I would think that we could start our attempted completing this well within approximately ten days.

Q More or less.

Mr. Boneau, I know this question has been

asked of you before, but it concerns me and, of course, I'm going to have to make a decision in this case, and in your best professional opinion, and I know you're not -- you don't make the final decision according to management, but should this not -- this well determine -- some testing this well determine that there's not commercial quantities of gas to be produced, what do you feel that your -- your management -- managers would say about allowing Blanco to utilize the well for disposal purposes?

A Gilbert, I simply don't have any information on which to answer that. John Yates has told me that we're going to produce gas from this well and the gas is there and at his instigation I look fairly closely and I think with an open mind at the facts as I could find them, and I've tried to present that today, but the management decisions are beyond me.

Q I have one further question, and you may not be able to answer it, but I'm going to ask you anyway.

Should you not find commercial quantities of gas there, do you feel that you guys would possibly be interested in this wellbore to utilize it for salt water disposal yourself at this point in time?

A I really don't see that we need additional salt water disposal capacity in this area at this time.

I surely agree with Mr. White that this is an attractive well and that it's reasonably easily re-

enterable and similar disposal zones have been used successfully nearby.

So it's an attractive candidate for a salt water disposal, but I frankly don't know that we need that capacity now.

MR. QUINTANA: I have no further questions.

Any further questions of the witness?

MR. CARR: I have none.

MR. KELLAHIN: Yes, Mr. Quintana.

RECROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Quintana asked you some -- your thoughts about the possibility of this well producing gas from this interval and you've told us that John Yates believes it will produce gas and therefore we want to try, and that you've examined certain data and have come to conclusion.

In response to Mr. Carr's question you said you had reviewed some C-115's on the well and some other information.

You've not given us any evidence or data that you brought from -- from that search, Doctor, and I'm interested in having you tell us, first of all, when did you

personally begin investigating to determine whether the Flint No. 1 Well had gas potential in the Morrow? When did you start your --

A It was subsequent to the time Yates discovered that Blanco was working on the well. It was after that.

Q Mr. Patterson testified that that was about the 15th of December of last year.

All right.

A I've looked at it from December the 20th to the current time, approximately.

Q All right. Would you summarize for us what causes you to believe that there is still recoverable gas in the Morrow interval, despite the fact that we have, what, 5.6 billion cubic feet of gas produced from that interval, and it appears as if the reservoir through this well has been fairly depleted?

What causes you to believe that this is a candidate for re-entry in this interval?

A Well, you have a couple questions there. I'll try to get to them.

The main reason that we know there's gas in the well is that it was abandoned at a tubing pressure of 1300 pounds and other wells have produced gas down to tubing pressures, there have been tubing pressures of 1 to 500 psi, and I have constructed graphs of tubing and bottom hole pressures versus production for the Flint and for the Bob

Gushwa and the the data for the Dayton Townsite, and the analysis looks valid, is the first point, and the analysis says that you could get this extra 1 to 2 bcf of gas by producing the well from a tubing pressure of 1300 pounds down to a tubing pressure of approximately 500 pounds.

All right. Further, I believe that these Morrow reservoirs are separate reservoirs. There's not a Morrow layer underneath this whole area, that something drains -- that these various wells are all draining the same place. The Morrow channels are in some sense separated.

Q Okay. If the water production in the Flint Well ceases because of water encroachment, what effect will that have on the pressure?

A I believe you said if the water production ceases. You probably meant the gas production ceases.

Q Let me try again.

A Is that correct?

A If the gas production in the Flint Well has ceased at 1300 pounds because of water encroachment, can you still produce the gas that's left in that portion of the reservoir, notwithstanding the water encroachment?

A It's true that if water encroaches the pressure tends to stay up even when the gas production ceases. That's more or less what you're asking.

Q That's exactly what I was asking and --

A Okay.

Q -- you gave me the answer.

A But the associated phenomena is that the gas production, when the gas production ceases, the water production increases usually dramatically.

Q All right.

A Okay, and my testimony is that essentially that gas production did not cease, that Amoco simply turned off the well, and that water production did not increase at all.

Q What was the daily rate of production for the well as reported and reviewed by you in the records, at which Amoco simply turned off the well?

A The well produced for one day in April, 1970. That day it produced 1,039,000 cubic feet of gas and 6 barrels of water. That is essentially the same rate it had been producing previously.

Q It was producing at a million mcf a day when Amoco cut it off?

A Yes, sir, that's what the records say.

Q In your experience as a petroleum engineer is it reasonable for an operator to disconnect a well that makes a million mcf a day?

A In 1984 it would, and 1985 now, it would not be reasonable to do that.

It's possible that -- it seems to be what happened. It's possible that in 1970 that was a reasonable thing to do in view of the low gas price and the surface equipment they had, where they had essentially a 10-mile

flow line to the sales point.

And that's the only way I can make it make sense to me now, yes, but in 1985, now, that would not be a reasonable thing to do.

Q What would be the water production rate at which you as an expert would conclude that the production from the well was being interfered with because of water encroachment?

A 50 to 100 barrels a day, those kind of numbers, ten times the amount of water that -- that this well was producing.

Q During the period of time that Amoco operated the well, and the records that you have reviewed, what were the intervals in depth that Amoco tested in this well?

A The records that I have found and obtained show that Amoco had a drill stem test of -- over an interval of around 9000 feet and then ran casing and perforated the interval which is shown on Exhibit Four.

The records I reviewed did not show a drill stem test in the Abo, but, you know, I'm not going to deny that there was a drill stem test in the Abo. I might not have looked far enough.

MR. KELLAHIN: I have nothing further.

MR. CARR: Nothing further.

MR. QUINTANA: I have no ques-

tions of the witness. He may be excused, but I'd like to recall Mr. White. I have a couple of questions of him before we move to making closing statements.

MR. KELLAHIN: Yes, sir, I was planning on recalling Mr. White --

MR. QUINTANA: Fine.

MR. KELLAHIN: -- Mr. Examiner. I wonder if I might take five minutes, though, to make sure that I'm not wasting your time with the questions I have left for Mr. White.

MR. QUINTANA: We'll take a five minute -- let's make it ten minutes to let her rest her voice here.

We'll take a ten minute recess.

(Thereupon a recess was taken.)

MR. QUINTANA: The hearing will come to order.

MR. KELLAHIN: Mr. Examiner, we'd like to recall Mr. Paul White.

MR. QUINTANA: That will be fine.

PAUL G. WHITE,

being recalled as a witness and having been previously sworn and is still under oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. White, I'd like to show you what is marked as Exhibit Number Six. Is this an exhibit you prepared, sir?

A Yes, sir, I did.

Q The -- would you describe to the Examiner the types of logs you used to prepare this two-well cross section?

A These logs are electrical logs, induction logs, and we took the opportunity here, we feel like, to show that the Flint zone that's perforated, and the zone in question here, is completely correlative with the zone that they're injecting water into the Bob Gushwa.

Q All right. What type of logs are involved here?

A These are electric logs, induction ES logs.

Q Okay. I have two more cross sections which I want to show you. Then I want to ask you some general questions about -- that apply to all three of them.

I would hand you Exhibit Number Seven and Eight.

All right, let's put them all out here together.

If you'll look at number -- Exhibit Num-

ber Seven, Mr. White, would you identify that for us?

A Okay. This again correlates the Flint Well, the perforated interval in the Flint Well, with the identical interval in the Bob Gushwa Well.

We used gamma ray neutron log, porosity log, on this, and we have a reduced scale log. That's the only log we had in the gamma ray neutron on the Flint, so we used a reduced scale log and correlated it with a full scale log, but it's obvious from the shale, the Morrow Shale, marker that the two zones correlate perfectly.

Q All right, sir. Then when we look at Exhibit Number Eight, would you identify that for us?

A Okay. This is electrical logs that we used to correlate the interval in the Dayton Townsite Well, which is being used for salt water injection, with the Flint Well, and we again can show correlation of the two zones.

Q With regards to the Flint Well, Mr. White, do you have an opinion as to whether PanAmerican, Amoco, as operator adequately perforated the potential producing zones in this interval?

A Yes, sir, I do, because they ran a drill stem test above this zone that's perforated and they recovered 20 feet, I think, of drilling mud, and so this is the only potential zone in the well -- in the --

Q The terminology in the last hearing and this hearing has tended to identify this as an Atoka interval or as a Morrow interval.

Be that as it may, are we talking about the same perforated interval or the same producing interval in these wells?

A If I ever correlated a log, we're talking about the same interval, the same zone, in the Dayton Townsite and the Gushwa and the Flint.

Q Okay.

A All of the markers are shale markers, porosity markers are identical.

Q All right. You and Dr. Bonneau, then, are in agreement that we're talking about the same interval regardless of how we characterize it.

A Yes, sir, I believe so.

Q All right. Now let me show you Exhibit Number Nine. In relation to Exhibit Number Nine and the three cross sections, do you have an opinion as to whether or not the Flint Well has had its gas production in this interval terminated by water infiltration or whether you agree with Dr. Bonneau that Amoc simply turned off the well?

A Well, Counsel, I do not agree that Amoco would just turn off the well. A well making a million a day, if that was the correct report to the Commission, they showed one day, you know, on the last -- tail end of the production. They could have produced it a number of days and showed one day, but if the well was making a million a day, there's no way, I don't care what year it was, 1970 or 1902, there's no way an operator is going to shut that well

in or at least there's no way he's going to plug the well.

He might wait for better market availability, a shorter line, or better pricing, but there is no way a prudent operator, such as PanAmerican, or Amoco, would -- would plug a well making a million a day.

Now, the Exhibit Nine is important in my opinion from this standpoint.

We have the channel system in the Morrow and I think it's a very complicated reservoir and I think that there's never been a definitive measure of data from any geologist or engineer that can completely predict the performance.

But we agree, generally, that there is a communication even in the channel system and that it is important on subsea depth where the channel occurs in the area.

Now, the Atoka Penn Pool in this little delta could very well have several channels running into the delta, but subsea depth has something to do with rate of recovery and something to do with water encroachment.

Now, the -- it's -- it's very plain that the Flint Well recovered 5-billion-6; the Gushwa Well 5-billion-3, and then the Dayton Townsite, 8-billion-1.

The Dayton Townsite channel is high, very high structurally, subsea-wise to the Flint Well. In fact, on the top of the productive zone I've calculated probably a -- roughly 160 feet difference in where that channel lies in

the delta on the Flint Well and where it lies in the delta on the Dayton Townsite.

So the higher cum recovery, the lack of water in the Dayton Townsite, is -- is normal and quite -- and quite conforms to the performance of the whole reservoir as such.

So that's why I think that the Flint Well did have a definite watering out and that's what's filed on the form from Pan American engineers, the superintendent, and that's what it looks like structurally and that's what it looks like productive-wise.

Q Let's go the Exhibit Number Ten, Mr. White.

Would you identify Exhibit Number Ten for us?

A Yes, sir. This is just the producing rates which I picked up on this Flint No. 1 and these rates were quite correlative in '68 and quite correlative in '69 with the rates on the Gushwa and Dayton Townsite, but it feel apart in '70, there in April, and the 1,039,000 cubic feet that was produced, have no idea whether it was sold in one day. Like I say, the report, the C-115 might show one day. I have no idea why it was shown, but certainly if it was a million a day there would be no reason to P & A this well. I can't -- I just can't go along with that.

Q Dr. Bonneau made reference to the fact that Eddie Mahfood thought there might be some potential for

Wolfcamp in -- in this well.

Do you have an opinion with regards to the Wolfcamp potential in this well?

A Well, Counselor, I --there is no Wolcamp anywhere that I know of, any -- to the best of my knowledge, anywhere even near this well.

There's been some attempts. There have been some DST's. There's been some attempted completions, I'm sure, because it's a real teaser in that area, and it is generally tried, especially by some operators that are kind of new to the area, but certainly the Wolfcamp would be a very wild, a wild risk to an operator.

Q Dr. Bonneau made reference to a period of time in which he thought Yates could be expected to accomplish the tests on the well if the Commission decides to give them a shot at it.

Do you have an opinion as an engineer as to what would be a reasonable time in which to complete the testing program that Dr. Bonneau outlined earlier?

A Yes, sir, I do. Knowing the condition of the well at present, my engineer had better be able to do that in two weeks, if he was evaluating the well.

Two weeks time, because you've got to run the tubing and packer and swab it off. Okay, you're going to acidize or swab that back, take a little buildup off the bottom hole pressure bomb, maybe with a 72-hour clock, and then evaluate the pressure to see if you need to frac.

Do the frac job in one day and swab it back.

Q Mr. Patterson testified earlier that he had talked to various employees of Yates and had found no one that had discussed with you the prospects of using this Flint Well for disposal purposes prior to Decembr 15th of '84.

Mr. White, have you had any discussions with any of the Yates employees about he utilization of this well for salt water disposal purposes?

A Yes, sir, did, and this is important to me because it emphasizes our innocence in the lack of proof of notice.

I talked to Eddie Mahfood, an engineer for Yates, about the Flint Well on the telephone, and I was asking Eddie what the pressures and rates of injectivity were over on the Dayton Townsite and the Gushwa, so I could get some relation from those two wells as to how our well would perform, because the Gushwa had taken approximately 3.4-million barrels of water at certain rates and certain pressures. I was trying to determine when fill-up would occur and I calculated the fill-up time of probably about three years for the -- for the Flint, and this was important to me to talk to Eddie, and I told him the well name and where it was and certainly it's not contradicting Eddie, but I did visit with him about this well at Yates Petroleum Corporation.

Q Approximately when did that take place?

A Tom, it was -- it was after we got the order. It was after we got the order but before we entered the well, before we went in and drilled the plug. It was after that.

It was after -- it was after we received the order.

MR. QUINTANA: After November, 1984, then?

A Yes, sir, that's right. Yes, sir, Mr. Quintana, it was after --

Q Notwithstanding substantial evidence to the contrary, Mr. White, should Yates be allowed to enter this well, do you have an opinion as a petroleum engineer as to what would be a reasonable minimum daily rate in which to expect an operator to complete a well in this area as a --

A Yes, sir, I do, and I've been a little bit confused by the fact that if re-entry was a possibility there was a period of 14 years from the time the well was plugged; there was a period of one of the most bullish gas markets that we've ever had in '80 and '81, when you could sell anything to anybody at any price.

There was never a re-entry form filed in the Commission, even though Mr. Patterson testified that over the years they considered the re-entry of this well.

But to get back to the answer to that question, I would say that, first of all, they've been way

conservative on this in that it's going to cost more than $125,000. It's going to cost more like $200,000, I believe.

They'd have to have 150 mcf a day on a 100 percent basis, and I don't know what the net revenue interest is in the lease, but on 100 percent basis they've got to have 150, at least, mcf a day. It has to perform against the present line pressure that Southwestern Pipeline has in that area, and this can be done, of course, with pressure, but they would have to buy a compressor.

Now just by moving a compressor in doesn't keep the capital cost from being incurred, even though if you own one or you don't. Yates is lucky enough to own several. We have to buy them.

Well, you've got a $50,000 cost on the compressor whether you move one in or you adjust the books; you still have capital cost to recover.

So to economically do this, they would, as I see it in my opinion, have to have 150 mcf a day, at least, deliverable to the market.

MR. KELLAHIN: I have nothing further, Mr. Examiner.

I'd move the introduction of our additional exhibits. I believe they're numbers Six through Ten.

MR. QUINTANA: Exhibits Six through Ten for Blanco will be accepted into evidence -- excuse me, accepted as evidence.

CROSS EXAMINATION

BY MR. QUINTANA:

Q I have a question to ask you, Mr. White.

The reason I ask this question is I'm not giving you information of what I'm going to decide; I'm just trying to look at all aspects of this.

But should it be decided that Yates have an opportunity to test the well and should it turn out to be a commercial producer, what will you continue to do in order to produce your wells?

A In order to produce our wells? Well, Mr. Quintana, we'd immediately, of course, if this happened, try to find another candidate somewhere for salt water disposal.

It's getting to be a very tough situation in that area to find a well that you can qualify to the Commission and qualify to the leasehold operators, and so on, but we would immediately begin to try -- attempt to find that.

We have another fight brewing with our legal counsel in the first -- the first hearing, Mr. Quintana, and that would be our action at that time should this happen.

Q So in other words you're saying that you would not continue to have your water hauled out at $1.12 per barrel? In other words, you're saying that you can't afford to produce your wells and continue to haul it at

$1.12 per barrel?

A No, sir, we cannot. Our -- our only hope there, we would -- we would do some mechanical changes. We would have to raise the tubing on the wells and do more of a skimming type operation just to keep our -- keep our lease active and keep the production -- show some production coming out, but we'd have to do, in that event, something mechanically, and possibly determine which was the larger water producers and shut them in completely.

And we couldn't drill any more wells at all. We'd have to quit.

Q Okay, and you're saying that's if you had to continue to haul it and you can't find another suitable disposal well.

A Yes, sir, that's right. We -- we could not haul it and continue to drill up our prospects.

Q How much -- how much of an estimated reserves do you think you would lose?

A We would lose probably 300,000 barrels of reserves if we cannot get a disposal well.

Q That's just off the top of your head?

A Yes, sir, but that's about 3/4ths of our reserves which we would lose.

MR. QUINTANA: I have no further questions at this point.

Are there any further questions of the witness?

MR. CARR: I have none.

MR. QUINTANA: Mr. White, you may be excused.

MR. WHITE: Well, thank you. It's been a long day for us. Thanks for your patience.

MR. QUINTANA: We will now have closing statements.

MR. CARR: May it please the Examiner, I believe it's important to first note that there are certain things that are not before you.

Not only have we not asked you today to decide the ownership of the well, there's no accusation, and has been none in this case, that Blanco has at any time acted in bad faith.

There likewise is no assertion that Yates has in fact laid back and let this happen, rested on its rights and then tried to raise them at a later time. That would be imprudent business on the part of Yates Petroleum Company.

We didn't get notice of the original hearing. Had we gotten it, we would have objected at that time.

Subsequent discussions following that hearing don't have any bearing on that fact.

The fact is we're before you today and the case is now before you again for decision.

The case was opened -- reopened at our request and we've presented certain evidence.

The evidence is fairly simple. We own oil and gas rights under all tracts in the south half of Section 22. Yates has plans to re-enter the PanAmerican Flint No. 1 Well and to attempt to recomplete it in the Morrow and perhaps other zones.

We discovered only when we started this effort by checking records at the Artesia Office that in fact an order had previously been granted to Blanco authorizing them to dispose of produced waters in this well.

We've had a lot of testimony today. We've guessed at why Amoco abandoned this well. We've guessed at whether the zones are in communication as well as correlate.

All of these are just specualation on the part of various competent people making their best judgments as to what's going on.

There's only one possible way for us to actually get an answer and that is to permit Yates to go in and test that zone and to see if they can return it to commercial operation.

I anticipate that Mr. Kellahin is going to ask you to set certain limits beyond which the well should not be permitted to produce but should be converted to a salt water disposal well.

I would submit to you that when you have two prudent operators in an area their economics are different. I think it's unwise for this Commission to start determining in early 1985 what conditions in mid-'85 or late '87 ought to control whether or not the wellbore should be abandoned, and I think it would be inappropriate for you to enter an order and undertake those kinds of decisions, for under your continuing jurisdiction, I can assure you we would be back whenever that contingency came to pass.

I think it's really simple. We own the oil and gas. We have a right to go in produce that. And that's what we are proposing to do.

We all understand that the Oil Conservation Division has certain duties. They're to prevent waste and protect correlative rights.

If you grant Blanco this authorization without first letting Yates go in and test the well, we submit you will be authorizing physical waste of any gas that is swept away and cannot be produced as a result of the water injection.

This will also result in economic waste, for to produce this from another well, not being able to utilize the re-entry will certainly increase the cost of the effort to recover and produce this gas.

Correlative rights will also be impaired and I recognize that there is concern about gas that might be lost on another tract if there isn't a satis-

factory way to dispose of water and truly there is a need to dispose of this water in this area.

But correlative rights is not a concept which talks about trading off our rights for somebody else's property right on another tract. It talks in terms of the opportunity to produce our just and fair share of the reserves under this property without causing waste, and we submit that it isn't a valid consideration to say, well, perhaps someone in another property could produce so many more mcf if we deny Yates their correlative rights, their opportunity to produce the reserves they believe are there under Section 22.

So we think that's an improper consideration. We don't think you're being asked to determine if there are recoverable reserves. That isn't consistent with the term correlative rights.

All we're asking is that you do not deny us our opportunity to spend our money to go in the ground and to attempt to produce reserves that we believe are there.

The powers of this Commission are also enumerated in Section 70-2-12 of the Oil and Gas Act. Subparagraph 4 reads as follows:

You are direct to, and I quote, to prevent the drowning by water of any stratum or part thereof capable of producing oil or gas or both oil and gas in paying quantities and to prevent the premature and irreg-

ular encroachment of water or any kind of water encroachment which reduces or tends to reduce the total ultimate recovery of crude petroleum oil or gas or both such oil and gas from any pool.

We submit that if you grant the application of Blanco you not only authorize waste, you not only impair correlative rights, but you violate this express provision of the Oil and Gas Act.

We really submit that on the facts before you, you really have no other choice but to let us go in and to test the well to see if we can complete it in the Morrow, and if we're willing to spend the money to see if we can produce from the Wolfcamp, or any other zone in that well.

We think we should be afforded a reasonable time to do that. We have stated we have plans to be in that hole and doing this within six months. The testimony from Mr. Bonneau indicates that surely no less than three months should be afforded.

We therefore ask the Commission to either deny the application of Blanco outright or to provide that Yates Petroleum Company has a period of six months within which to re-enter, test that well, and attempt to restore it to commercial production.

Thank you.

MR. QUINTANA: Mr. Kellahin?

MR. KELLAHIN: Mr. Examiner,

the one issue that we've asked you to decide, and the sole issue before you in a salt water disposal case, is to determine whether there will be waste occurring under the definition by the using of that formation for salt water disposal.

We believe that there is substantial evidence to show that it is inappropriate to allow Blanco to go ahead and dispose of water in this interval.

Mr. Carr makes an eloquent and very nice argument about a case where the Morrow had not been tested. We've often had those kinds of cases over the years where we have competing geologists and engineering witnesses looking at logs in which the interval that the operator wants to test for disposal is one that has not been tested for production.

That is speculative. Until that formation is tested, none of the experts know to a reasonable certainty what that formation will produce.

Were that the case, then it would be appropriate to allow Yates that access to the wellbore and actually test that zone.

The substantial evidence in this case is that in fact Amoco not only tested that formation, they produced that formation a number of years, and they simply didn't produce it for a long while and get a small quantity of gas. They produced it for 5.6-billion mcf. It's reasonable to conclude, and to use your judgment, that there is substantial evidence that that interval has

been depleted. You can conclude from the record that Amoco as a prudent operator is not going to simply walk away from the wellbore.

We believe that there's also substantial evidence to explain what has happened to that wellbore in that interval. It has watered out.

The structural relationship of those three wells in this interval documents that fact. The Flint Well is the only well the testimony shows us that produced any water. The conclusion that you can draw from the evidence is that there has been full testing of that zone. It has been fully depleted and that it is suitable for disposal purposes. It's a zone that's correlative to the same interval that Yates is using in the adjoining section for disposal.

Let us do the same thing.

Mr. Carr would have you believe that there is some absolute right of Yates to utilize this wellbore to further test for the Morrow. That is simply not true. He did have the right phrase in his discussion and then immediately avoided further discussion of the phrase.

The phrase is the opportunity to test for production. They've had an opportunity for a great many years to test this well and have not done so.

The legal right of who can use this wellbore for whatever purpose is not before you, and I won't bother you with a discussion of why I think we're

right on that legal issue, but there is no absolute right to give Yates another shot at re-entering this well.

The judgment you have to make is whether waste will occur by allowing Blanco to continue with this process. I think you're on sound legal ground to deny the protest, to enter the same type of order that you entered back in November.

If that is not your decision, let's discuss the second part of Mr. Carr's argument about who should test for what and when and how.

We are not asking you as the examiner to substitute your judgment and determine independently or arbitrarily on whatever standard you want to apply, that this well is economic or not. We were very careful in our questioning of Mr. Patterson and Dr. Bonneau of what standards they used to judge if a well is economic and we put them to that test because we asked them what tests they applied to the Gushwa well. What tests did they apply to the Dayton Townsite well, and it is that test that we want to be bound by in this order if they're allowed this wellbore.

Now you're not exercising any judgment, you're just taking them on their sworn oath that if a well produces less than 100 mcf a day upon some reasonable test period, which Dr. Bonneau says can be contucted 6, 12 hours, whatever it is, give them 72 hours, I don't care. Use his testimony, set up a standard, and let him abide by

that.

If it comes in for less than 100 mcf a day and if it's watered out, we think it is that we ought to have that wellbore back. We believe it's suitable for disposal and we ought to have that option to use it.

We've been careful to extract from those witnesses of Yates the economic standard, the costs involved, and everything else, so that your judgment in the guidelines that you will allow them to test the well are not ones that you've developed. They're ones lifted straight out of the testimony and there's not a court in the world that will reverse that.

If that is your choice, we suggest that a reasonable time period not be some arbitrary six month period that Mr. Carr pulled out of his magic hat. Let's -- let's get it down to the facts as presented to you.

Dr. Bonneau said that within a four week period he ought to be able to test this well. Mr. White says he thought in ten days that somebody ought to do it.

You can examine the transcript and pick a number. I think once the order is entered and it's final, the wellbore is in a posture, in a position because of some $55,000 worth of work that Mr. White has expended on this project, so that a completion unit can come on the property in a few weeks, they can run their tests,

they can stimulate it, they can do what they want to, and within two or three weeks, thirty days, whatever's fair, they can determine whether this is an economic well by their own standards, and if not, they can turn the wellbore over to us.

Six months, you might as well deny the order if you give them six months, because in six months we've got to find some other solution for the disposal.

MR. QUINTANA: Thank you, Mr. Kellahin.

Mr. Carr, I have quite a bit of evidence to look at before me in order to make a decision, but I'm going to ask that your clients do some things in anticipation that if I decide to allow the test that they're seeking, they can proceed immediately to test it.

One would be to have them file a permit to -- for a permit to re-enter the well with the District Office. The permit will be filed, you can get all that paperwork out of the way.

The second thing, I'd like to have them submit an AFE, the costs specifically to re-enter that well.

I'd also like a detailed estimate of time and what you have to do in order to test the zones you plan to test and I would caution you to use reasonable times since I have worked out there in the indus-

try and I know what reasonable times are.

Those are the three things that we'd like to see.

Mr. Kellahin, I'd like to instruct your client to submit to me his best estimate of the time that he thinks to test those same zones.

I'm going to try and get this order out within the next week.

MR. KELLAHIN: We'd appreciate a decision. Time is of the essence for both parties --

MR. QUINTANA: Right.

MR. KELLAHIN: -- we think, and we'd appreciate that very much.

MR. QUINTANA: Well, we'll put a rush on this one to see if we can resolve something in this case.

If there is nothing further in Case 8323, it 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. 8323, heard by me on JAN. 16 1985.

Gilbert P. Quintana Examiner
Oil Conservation Division

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

27 March 1985

EXAMINER HEARING

IN THE MATTER OF:

Case No. 8323 being reopened on the motion of the Oil Conservation Division and pursuant to the provisions of Division Order No. R-7693-A. CASE 8323

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

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I N D E X

I N D E X

MR. QUINTANA: We'll call next Case Number 8323.

MR. TAYLOR: Case Number 8323 being reopened on the motion of the Oil Conservation Division and pursuant to the provisions of Division Order No. R-7693-A, which order granted Yates Petroleum Corporation forty-five days in which to determine if the Pan American Flint Gas Com Well No. 1, located 1980 feet from the south and east lines of Section 22, Township 18 South, Range 26 East, is capable of commercial oil and gas production.

Yates Petroleum Corporation may appear and show cause why said Pan American Flint Gas Com Well No. 1 should not be utilized as a salt water disposal well.

MR. CARR: May it please the Examiner, my name is William F. Carr, with the law firm Campbell and Black, P. A., of Santa Fe.

I represent Yates Petroleum Corporation.

I have one witness.

MR. QUINTANA: Are there any other appearances?

MR. KELLAHIN: If the Examiner please, I am Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of Blanco Energy.

MR. QUINTANA: Any witnesses?

MR. KELLAHIN: Not at this time.

MR. QUINTANA: Will all witnesses please stand up and be sworn in at this time?

(Witness sworn.)

MR. QUINTANA: You may proceed.

MR. CARR: Mr. Quintana, I have a brief opening statement.

Yates is here today pursuant to Order R-7693-A, which provided, among other things, that we should appear and show why the Pan American Flint Gas Com Well No. 1 should not be utilized as a salt water disposal well.

Our appearance here today should not be construed as an abandonment of our position that we have the right to use this well pursuant to the terms and conditions of the oil and gas lease we have on the subject property.

Further, we believe that if Yates is denied the opportunity to use this wellbore to fully test any and all zones in the well that will be tantamount to an attempt by this Division to decide the ownership of the well and we submit that is something the Division cannot do.

We have tried from the time we

discovered Blanco's intentions for this well to work through the Oil Conservation Division.

We believe that resolving the matter here and not in the courts is in the best interest of all of us, and that the most expedient way for this problem to be resolved will be for Yates to be able to go back to the wellbore and to test all zones to determine whether or not it can be returned to commercial production.

Today Dave Boneau will testify and in so doing he well review the efforts of Yates since the last order was entered. He will present an estimate of the damage incurred by Yates as a result of Blanco's unauthorized work on the well, and he will present evidence showing that correlative rights can be only protected and waste can only be prevented if they are permitted to return to the well and make further efforts to return it to production.

MR. KELLAHIN: Having heard Mr. Carr's opening statement, Mr. Quintana, I feel compelled to also make an opening statement on behalf of Blanco Energy, Inc.

Mr. Carr and I are at a fundamental disagreement as to why we are here and because of that fundamental disagreement, I think it's important for you to remember how and why we got to the position we're in now.

You'll recall the hearing on January 16th, 1985, in which you heard the testimony of Mr.

Boneau and the order that you entered pursuant to that hearing.

It was Mr. Boneau's testimony at that time that he believed that there was still a potential for commercial gas production from the Morrow formation in the Flint Well.

You will also recall that the original order allowing Blanco to use this salt water disposal well for disposal was set aside and vacated.

You'll recall at the time of the January hearing that Blanco had expended some $55,000 worth of money to convert this well for disposal purposes.

Because of the uncertainty about whether or not gas could be produced from this well, notwithstanding our testimony to the contrary, the Commission allowed Yates forty-five days from January 30th, 1985, to test any zones that they desired to test in the wellbore.

The testimony at that hearing and the testimony and documents and exhibits in this entire case from the very inception, including the affidavit from Mr. John Yates, in which they discussed that they wanted the opportunity to re-enter this well to test the Morrow formation, an affidavit executed and attached to documents filed by Mr. Carr in this case, and the whole focus and thrust of this case, has been to test for gas in the Morrow.

However, the order was not limited to that extent and they were allowed to test any --

any zone that they wanted to test.

Within a period of time that conforms to Mr. Boneau's testimony, when asked in the transcript of the prior hearing will reflect, he said between four and six weeks to complete the work.

Not only was Yates given forty-five days, that period was extended by agreement of all the parties and an additional two week period was granted to Yates to test this wellbore.

It is our contention that the only issue before you for hearing now is whether or not at this point Yates has discovered and has a well capable of commercial production of gas.

If they are here to ask for more time, we believe that constitutes a collateral attack on the existing order and that testimony ought to be rejected and any effort on their part to do so ought to be denied.

You will recall that the order in this case, 7693-A, was entered and was not appealed by Yates. They apparently believe that the terms and conditions of that order were satisfactory to them, and therefore, we believe that their proof, and this case, ought to be limited to what they have done within the period of time allowed by the order and whether that effort has resulted in the production of a well that will produce in paying quantities.

We believe the proof in this case will be that Yates has entered in -- on this well and that they've had a reasonable opportunity to test for gas and that the evidence will show you that there is no commercial production in this wellbore.

We believe the evidence will show you that this order ought to provide that you reinstate the original order, 7693, which was vacated pending Yates testing the well. The original order ought to be reinstated and immediately turned over to Blanco Engineering Company.

We also believe the evidence will show you that the wellbore is not in a condition required by Order 7693-A, which says that Yates shall return the wellbore to Blanco Engineering in a condition as near as possible as originally received.

We will request that you require Yates to do that for us so that they return to us a wellbore that we now utilize for salt water disposal.

We believe that upon the conclusion of the presentation of testimony and evidence today, that you'll have no other alternative but to return this wellbore to Blanco Engineering for salt water disposal.

MR. QUINTANA: Mr. Carr, you may proceed.

MR. CARR: Thank you, Mr. Quintana.

We call Dave Boneau.

DAVID F. BONEAU,

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

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your full name and place of residence?

A David Boneau. I live in Artesia, New Mexico.

Q Mr. Boneau, by whom are you employed and in what capacity?

A I work as Engineering Manager for Yates Petroleum Corporation.

Q Have you previously testified before this Division and had your credentials accepted and made a matter of record?

A Yes, sir, I have.

Q And how were you qualified at that time?

A Qualified as a petroleum engineer.

Q Are you familiar with the Pan American Flint Gas Com Well No. 1 and the recent work performed on this well by Yates Petroleum Corporation in an effort to return it to commercial production?

A Yes, sir.

MR. CARR: Are the witness'

qualifications acceptable?

MR. QUINTANA: Yes, they are.

Q Mr. Boneau, have you prepared certain exhibits for introduction in this case?

A Yes, I have.

Q Will you please refer to what has been marked for identification as Yates Exhibit Number One and review this for the examiner?

A Exhibit Number One is entitled A Summary of Events. It tries to serve as a background part of which has been covered by the opening statements and also serves as a synopsis of the work done by Yates since the last hearing.

Trying to review this quickly, we recall that on September 5th Blanco originally sought authority to inject salt water disposal in the Flint Well.

On November 9th Order 7693 granted Blanco the right to inject water in the Flint Well.

On December 20th that order was withdrawn after it became known that Yates had not received notice of the September hearing.

On January 16th, 1985, the Case 8323 was heard here in this room with Blanco's presentation and Yates objections.

On January 30 the order resulting from that hearing, Order 7693-A, granted Yates forty-five days to show commercial oil and gas production from the Flint Well.

I'll try to get on a little more detail on what's happened since then.

Our first efforts on the well started at February 22nd, 1985, and from that time through February 28th, 1985, Yates swabbed the Morrow perforations that were the main subject of the previous hearing, which perforations are located at depths 9094 to I think it's 9116, actually, the exhibit says 9114, but approximately a 20-foot interval in the Morrow.

We swabbed that zone for approximately a week. We produced a small flare of burnable gas and water in quantities mostly around 30 barrels a day but as much as 66 barrels of water a day from the well.

We found out about this time that the well had been damaged by the introduction of fresh water and other fluids by Blanco. The low rate of production frome the well indicated to us that that zone had been damaged and we went to testing two other zones that are listed on the exhibit.

From March 1st to March 7th we tested another Morrow zone, which is actually deeper than the -- than the one that was discussed previously. It's located at 9175 to 9178 in the Flint Well, and that zone was acidized with a small acid job and it produced, again, burnable gas, a 4 to 6 foot flare and just around 20 barrels of water per day.

The zone was what you just call wet. It

is not commercial.

We abandoned that zone and moved to a Canyon Lime zone at 7944 to 7954 and we tested that zone from March 8th, 1985, through March 16th.

That zone was acidized with a small acid treatment and when a good show of oil was obtained it was acidized with a larger, I believe it was 12,500 gallons of acid.

The best recovery from that zone was 8 barrels of oil, 14 barrels of water, 16 MCF of gas in a 19-hour period. That zone was tested through a separator and testing equipment supplied by a commercial service company and at the end of the test when the well was shut in, the well was producing 2 barrels of oil a day and about 70 to 75 MCF of gas per day.

At that time we were told by -- at that time we had finished testing that zone as far as we would test it in the normal operating procedure.

We were told that that was as much as we could do. We moved the rig off and we have not done -- we have not done anything to the well since that time. That is -- technically that is not exactly true. We went out one day and looked at the gauge at the surface, but other than that we have not done anything since March 16th to the well.

The last item on Exhibit One is March 27th, hearing re-opened. We are here now.

Q At the February 16, 1985, hearing were

you a witness for Yates Petroleum Corporation?

A I think, Bill, it was in January, but at that hearing I was a witness, yes, sir.

Q On January 16th --

A Yes, sir.

Q -- '85? At that time were you aware that fluids had been -- whether or not fluids had been placed on the Morrow zone by Blanco Engineering?

A At that time I was under the impression that nothing had been placed on the zone by Blanco Engineering.

The transcript of Blanco's testimony for that day is vague and unclear as to whether fluids were introduced and very, very vague as to how much was introduced.

Q Since that time have you attempted to establish whether or not fluids were injected in the well by Blanco?

A Yes, we have established that fluids were introduced by Blanco. The evidence we have is -- suggests that it was -- the fluids were introduced in an un-authorized manner in volumes of 200 or more barrels of fresh water, which would be expected to damage the Morrow formation.

Q Do you have any idea as to when that -- those fluids might have been injected into the well?

A I don't consider the evidence we have conclusive, but the evidence we have suggests that they were

introduced in the middle of September, which would be the point in time of the initial hearing and between the time that the original order was entered.

Q And what, when you say "evidence", what are you talking about?

A We had obtained some -- I call them bills, receipts, from a couple of service companies in Artesia, which show that in one case they hauled 150 barrels of fresh water to the Flint Well on September the 12th, and another that an acid job was done on the Flint Well for Blanco on the next day, September the 13th.

Q Does this water problem affect your testimony from the January 16 hearing?

A Yes, I believe it affects the testimony. My testimony of January 16th ws to the effect that there was approximately 1.5 BCF of gas left in the Morrow zone in the Flint Well and that Yates should have an opportunity to test that zone thoroughly because of the large reserves there.

That plan was changed when access to that gas was blocked and when we found out we no longer had access to that gas, we were perplexed, first of all, but then we were sent to -- for other zones to produce in the Flint Well.

Q Mr. Boneau, would you now refer to what's been marked as Yates Exhibit Number Two and review that, please?

A Yates Exhibit Number Two consists of

three sheets of paper. Those three sheets of paper will be used to indicate why we believe that the Flint Well contained approximately 1.5 BCF of recoverable gas in the Morrow zone around 9100 feet.

Each of the three sheets is what you would call a P/z curve. In less technical terms, I hope, that means it's a plot of bottom hole pressure indicated by P, divided by a correction factor, which is called a real gas compressibility.

So it's a plot of P/z against the amount of gas produced from the well.

These P/z curves are standard ways of predicting gas in place and reserves from gas wells.

The triangles on the first page, the first page is listed Bob Gushwa, and that's the name of the well that this data refers to. The Bob Gushwa, you'll recall from the initial hearing, is a well just to the west of the Flint Well that has been used for salt water disposal and it was discussed at great length at the first hearing.

The triangles, then, indicate measurements of bottom hole pressure on the Bob Gushwa at four different times during its life, Plotted on this graph those four triangles form a straight line which extrapolated down to the base line shows that the Bob Gushwa contained about 6.5 BCF of gas.

The big, black dots are shut-in tubing pressures measured during the life of the well. We're talk-

ing about shut-in tubing pressures because bottom hole pressures are very often not available, especially on wells that you do not operate, while shut-in tubing pressures are reported to the State each year and are available as public information.

Line, or a line, or several lines, drawn through the shut-in tubing pressures extrapolate to almost the same point, or exactly the same point, 6.3 to 6.5 BCF of gas in the Bob Gushwa.

The actual production from the Bob Gushwa was about 5.3 BCF of gas and the vertical line drawn at that point indicates that the Bob Gushwa was produced down to the point where the shut-in tubing pressure was about 450 psi, or the same corresponding point would be about 700 on the P/z curve.

We're discussing the Bob Gushwa to make the points of what the P/z curves show, how the shut-in tubing pressure curve can be used as a substitute for the P/z curve and also to show to what extent Yates produced this Bob Gushwa well on this kind of a graphical presentation.

The second page is entitled Dayton Townsite and is a similar kind of picture for the Dayton Townsite Well, another Yates well that's used for salt water disposal, located just to the west of the Flint Well, discussed at great length at the last hearing.

Here again the shut-in tubing pressures

are presented. A very nice straight line goes through all those points; extrapolates down to about 7.8 BCF of gas in place in the Dayton Townsite. The actual cumulative from the Dayton Townsite was about 7.5 BCF of gas and that corresponds to drawing the shut-in tubing pressure down to a point of 150 psi; on the P/z curve, a little over 200 psi.

Now, the third curve is a similar kind of curve for the Flint Well and the point is that there's a difference with the Flint Well.

Again on the Flint Well we have shut-in tubing pressures plotted. There's a little scatter in the data but a reasonable line through the points extrapolates out to 8.3 or 8.4 BCF of gas in place in the Flint Well.

The actual production from the Flint Well was 5./6 BCF of gas and the last tubing pressure reported before it was abandoned was over 1300 psi.

The vertical lines on this picture for the Flint down in the lower righthand corner show how far down on the P/z curves the well could have been produced if it had been produced first to the point where the Bob Gushwa Well was cut off and a little further to the right would be the point where the Dayton Townsite Well was cut off.

The difference between the actual production from the well and the production that would be available if the well had been drawn down like the other two wells is 1.5 BCF if it had been drawn down like the Bob Gushwa; a 2.1 BCF if it had been drawn down like the Dayton

Townsite.

This is the origin of our number 1.5 BCF of gas remaining in that well, and my conclusion is that that gas was remaining in the well and that our chance to produce that gas has been severely hurt by the fluids introduced into those sensitive Morrow zones.

Q Would you now refer to Yates Exhibit Three and review that?

A Yes, sir. Yates Exhibit Three is a brief calculation of the money damage done to Yates by being prevented from producing this gas from the Morrow.

The recoverable gas in the well is a minimum of 1.5 BCF of gas. I think it is possible that we will eventually get some gas from that zone but I believe that at least 50 percent and probably more like 80 or 90 percent of the gas from that zone we will not be able to recover even if we are allowed extensive time to try to pure that zone, so the loss is a minimum of half of the amount of gas in place, which would be 3/4 of a BCF.

That gas from the Flint Well would qualify for Section 109 price, which is about 245 per MCF and I think we could sell it at that relatively low price.

With operating expenses we would clear approximately about $2.25 per MCF. At 7 -- .75 BCF of gas, or .75 times 10 to the sixth, as indicated on the sheet. That gas has a value in dollars of $1.7 million. Of course, we would not recover all that gas instantaneously. From

looking at the production of the wells, I estimate that it would be produced over about eight years and discounting that cash flow at 13 percent, that money would be worth $1.2 million and $1.2 million is the minimum monetary damage that Yates has suffered because of the damage done to the Morrow zone in the well.

Q Mr. Boneau, has Yates sustained additional damage as a result of the activities of Blanco on this well?

A We are suffering some continual damages by not being -- operated by moving rigs on and off and such as that, but nothing that will substantially change $1.2 million.

Q Would you now refer to Exhibit Number Four, which identifies the zones remaining to be tested in the well, and review those zones and this exhibit with Mr. Quintana?

A Yes, sir. Exhibit Four again contains three pages. The first page is kind of a summary and the other two give details.

Exhibit Four outlines what we think is the prudent things to do on the well to test for oil and gas when we are allowed to go back and test the well.

Zones Left to Test it's entitled.

The next zone we would test is the Wolfcamp interval and the details shown in the second and third pages of this exhibit show it would take fifteen days

to test that zone.

The Yeso interval will take 42 days to test.

The San Andres interval, about 40 days, and in the what I think is extremely unlikely event that we did not get a commercial well from one or all of those three zones, we would be back trying to swab that Morrow zone that's been damaged where all that gas is left and we would be back trying to reverse the damage and produce gas from that Morrow zone and I estimate it would take 25 days to complete that and again, what would would be done in those days is indicated on the second and third pages of the exhibit.

The second and third pages of the exhibit are a portion of a response to the Examiner that Yates sent on January 18th. Most the people here will recall that at the end of the last hearing the Examiner asked that Yates submit AFE's for what work they intended to do and a detailed outline, day by day outline of what we would do on the well.

The second and third pages of this exhibit are the day by day outline of what we plan to do with the well, to the best of our knowledge, on January 18th.

A few of the details are changed because of the damage and one or two other factors, but mostly the damage, but most of the things that we're talking about

needing to be done are precisely what we told the Examiner needed to be done on January the 18th in response to his request for that information.

Q At the last hearing do you recall what time period you requested Yates be given to re-enter and attempt to return this well to a producing well?

A I said that it would take a minimum of three months to test the well and that six months was a much more reasonable time.

Q Would you now refer to Yates Exhibit Number Five and identify this and review it for Mr. Quintana?

A Yates Exhibit Number Five addresses the present completion in the Canyon Lime in this Flint Well.

When testing was stopped the well was producing 2 barrels of oil per day and about 73 MCF per day of natural gas. That gas was 1400 BTU gas, rich gas, richer than you'd get from what you'd call a gas well.

The whole calculation there shows that this production is sustained, would produce income after expenses, basically, of about $200 a day and would pay out the total amount of money that we spent to date within a year.

My calculations are based on it says $20 per barrel oil and that, we expect to sell the oil for more than that, but including operating costs you'd net about $20 per barrel, and again the gas, you could probably sell for $3.00 or more; perhaps the after operating expenses and such, I put down $2.25.

We don't know what this -- what this zone would actually do when placed on production but on a stabilized test this is what -- this is what it produced and it might be a keeper as it is.

Q Is it also possible that the production from this zone could either be downhole commingled or dually completed and produced that way in the well with other zones?

A It could be dually completed with the Wolfcamp zone, which is the next zone that we would like to test.

Q Let me direct your attention to that Wolfcamp zone and ask that you refer to what has been marked as Yates Exhibits Six and Seven and review -- identify those and review them for the Examiner, please.

A Exhibit Six and Seven are cross sections. One is a north/south cross section, one's an east/west cross section.

The purpose -- the purpose of Exhibit Six and Seven is to show you our reason for wanting to test the Wolfcamp formation, have you believe that is a reasonable undertaking as an engineering procedure.

MR. KELLAHIN: At this point, Mr. Examiner, I'm going to object to Exhibits Six and Seven. The witness has clearly indicated to us that he wants to use the geologic cross sections to show you he believes that there are other zones that ought to be tested in the well.

Mr. Examiner, that was the subject of the January 16th, 1985, hearing and the purpose and the call of this case is not to relitigate and re-argue whether or not Yates ought to have the right to re-enter the wellbore. The Commission has already decided that issue in favor of Yates.

The fact that they have not gone to the Wolfcamp is a subject of consideration as to why they didn't use their time more prudently, but the question about whether or not there is commercial gas available or potential in the Wolfcamp is not the subject of this hearing.

We think it's irrelevant and we would suggest that the exhibits and this portion of the testimony not be undertaken.

MR. CARR: May it please the Examiner, first of all the purpose of the hearing in January was to determine whether or not Blanco Engineering would be able to use the well for salt water disposal.

At that time we came forward and we explained to you that we thought there were zones in the well that could be used for commercial production and could be returned to commercial production. That's what that case was about.

Mr. Kellahin would like to stand, obviously, and I would, too, if I were him, right on the exact wording of this order, but he forgets the last

paragraph in this order and it is the jurisdiction of the cause is retained by you for the entry of such further orders as the Division may deem necessary.

The question before you today is whether or not you're going to attempt to take a well that belongs to Yates away from them and give it to Mr. White so that he may dispose of salt water in it.

Your statutory duty is prevent waste and protect correlative rights and we're presenting to you the arguments that are necessary for us to at the end conclude and show you that in fact correlative rights will be impaired and waste will be caused if you do not grant Yates an additional period of time within which to continue testing of this well.

This is absolutely relevant to the very simple question that is before you and it is consistent with your statutory duty, and we submit that the objection should be overruled.

MR. QUINTANA: Mr. Boneau, may I ask you a question first before I make a ruling?

Would you give me the reason why you did not test the Wolfcamp before you tested the other zones, some of the other zones?

We're talking about the Wolfcamp now, I believe.

A Yes, sir. We believe the prudent way to test any well is to test it from -- basically from the bot-

tom up, and we're proceeding with that procedure that I sent you on January 18th.

You look at the dates and it was three weeks after the -- it was three weeks after the date of the order before we first entered the well. There was quite a lot of time in there. We spent essentially a week testing each of three zones. There are six, seven, eight zones that merit testing. We thought it would be totally imprudent to half test six zones and much more prudent to test three zones and attempt to make a reasonable argument that we should have the time to test the others.

The Wolfcamp is fourth on the list. It's that simple. The Wolfcamp is the next logical zone to test and we believe we've been testing the zones in a responsible manner and this is how far we got.

MR. QUINTANA: I have one -- one other quick question.

I notice that there's a lapsed time between the date the Order 7693, in which I granted you forty-five days to start testing the well, and from the date that you started actually moving on the well.

Can you give me a reason why there was a lapsed time in there?

MR. CARR: Mr. Quintana, I probably can explain that because they didn't start, they were ready to go and they didn't start until I gave them the okay.

We had concern about provisions in the order which provided that when the matter came back on for hearing that you would determine how much should be reimbursed to Blanco for costs expended on the well. We were concerned about that and whether or not it was putting us in a position of having to go de novo on the entire matter, because we wanted to be certain that if we were also going to be looked to to reimburse costs, that we would also have an offset for any damage and additional expenses we incurred.

Until I was able to discuss that with the Director of the Commission and we were able to make a decision that it was prudent for us to go forward and not seek a de novo hearing, which would have not served anybody's interest, if we can assume that Mr. White wants to dispose water in the well and we want to return it to production, we decided not to go de novo and the day we reached that decision I directed Yates to go forward and they did on that date.

MR. KELLAHIN: Mr. Examiner, before you rule, I wonder if I might have an opportunity to close debate on my motion.

I think this is as convenient a time as any for the Examiner to make some fundamental rulings about how we are to proceed in this matter.

Mr. Carr would cite you to the, as he did in his response to my objection, to the continuing

jurisdiction clause in the order, and he says that gives he and his client the opportunity to relitigate any order that's every presented.

We believe that that is not the intent of that provision, Mr. Examiner. You can see what is happening. Yates receives an order that's effective on the 30th of January, 1985, and for reasons explained by counsel, they wait some twenty-two days before they enter the well site.

I advised counsel immediately upon receipt of that order that we would not appeal that order. That was not an impediment to it.

It appears that the timetable that Yates gave you following the hearing and before the order was issued is one in which they set forth a time period to test all these zones and if they had a problem in getting on the well site and had a reason for the twenty-two day delay, they were within the thirty days appeal period of this order and they could have asked for a de novo hearing and we could have come back and heard the things we're hearing today.

In addition, in the transcript on page 51, Mr. Boneau testified.

Mr. Carr asked him, "Do you have plans to complete in any other zones?"

And he talked about the Wolfcamp.

We're not doing anything different today than we did at the last hearing and I think it's fundamental that you give us some guidelines in what we're doing today in terms of this hearing.

It is my opinion and argument that it is not proper for any party before the Commission to sit with an order they apparently can't live with and then when they come in and say I can't live with it, want to relitigate all the issues involved in the original hearing. We don't keep doing this until Yates gets something that they want. We've got to have some finality to this arrangement and this is an order that they entered, they didn't appeal, and it says they have to show cause why they don't have commercial production.

We believe that's the purpose of the hearing and we shouldn't spend the rest of the day talking about the Wolfcamp. We didn't come prepared to do that.

If we're going to fight about the Wolfcamp and the Cisco and the Yeso and everything else that may be in this wellbore, then we're going to have to come back and do this some other time because that's not why we were called to the hearing today.

For those reasons we object to this -- these exhibits and this line of testimony and believe that the Commission ought to rule favorably on our objection.

MR. QUINTANA: Mr. Kellahin, after some discussion with my counsel, I've decided to overrule your objection and allow testimony of Mr. Boneau on the cross sections, Exhibits Numbers Six and Seven.

I will weigh the evidence on how much it has to do with what we're talking about now.

Mr. Boneau?

A Thank you, Mr. Examiner. Exhibit Six is a basically east/west cross section. The wells involved are shown at the bottom of the cross section. The well on the far right is the subject Flint Well.

The point of the exhibit is to show that the Wolfcamp zones, which are near the top, appear to be continuous across this area and in the well on the far left, which is the Ralph Nix No. 1, on drill stem test the Wolfcamp tested 315 MCF a day of gas and that show in the Ralph Nix gives us reason to want to test the Wolfcamp in correlative zones in the Flint Well. That's really all there is to say about the cross section.

Q Would you now go to Exhibit Number Seven?

A Exhibit Number Seven is similar. It's a north/south cross section.

Here the Flint Well is the second well from the left and again the Wolfcamp zones appear to correlate across this area.

In the well on the far right, the Hondo Keller No. 1, the Wolfcamp produced on test through perfora-

tions 19 barrels of oil, 600 MCF per day of gas, and 288 barrels of water, between a 5 and 10 percent oil cut. It was not deemed commercial at that time but the Flint Well is approximately 50 feet up dip from that really fairly good oil show and gives us another reason to want to test the Wolfcamp in our Flint Well.

Q Would you now refer to Yates Exhibit Number Eight and identify that, please?

A Exhibit Number Eight again has the purpose of trying to show briefly why we think it is reasonable to test the Yeso.

It's a map of the area around the Flint No. 1 showing nearby Yeso production.

The Flint is indicated by the gas well symbol in Section 22. There is a significant amount of Yeso production to the south in the well that Blanco wants to bring the water from. There are in fact Yeso wells in Section 25, which would be just to the right of Section 26.

The drilling in this field has gradually extended the production to the north and recently there has been a well drilled to the Yeso in Section 22 just north of the Flint, indicated by a red dot and a black dot, completed January 25th, 1985. The well's name is Yates No. 1.

The Yates Well is producing 22 barrels of oil per day from the Yeso.

And over in Section 23 there's a Yeso well completed in November of 1984 by H&S Oil of Artesia.

The name of that well is Lattion No. 1.

And it produced an average of 26 barrels of oil per day for the 31 days in December of 1984.

So there are two fairly good Yeso producers, one just to the east, one just to the north of the Flint, plus the Atoka-Glorieta-Yeso Field within a mile to the south.

Good chance for Yeso production in the Flint Well.

Q Would you now refer to Exhibit Number Nine and identify that and review it for Mr. Quintana?

A Exhibit Number Nine shows the San Andres production around the Yeso Well and indicates why we think there's an excellent chance to make a San Andres well at the Flint location.

The Flint Well is literally surrounded by San Andres producers. The numbers there are cumulative barrels of oil produced to the end of 1984 by these wells. There's a well with a cumulative of 22,000 barrels within 500 feet of the Flint location. There's a good well to the west, to the south, to the east. It's in the middle of the San Andres Field and there's an excellent chance that the Flint will produce oil from the San Andres.

Q What does Yates request the Examiner -- what kind of an order -- what order does Yates request the Examiner to recommend and, hopefully, the Division enter in this case?

A Yates requests as a minimum the 122 days, as shown on one exhibit, whose number I can't remember, Exhibit Four, to test the zones that we identified precisely here as excellent candidates for oil production, the Wolfcamp, the Yeso, the Atoka, and back to our main goal, which is that Morrow zone which has $1.2-million worth of gas in it that has been damaged. It will be difficult to reach but needs to be tried despite the efforts by Blanco to seal it off.

Q What will be the impact on the correlative rights of Yates Petroleum Corporation if this request is denied?

A We will lose at least that $1.2-million plus the opportunity to -- to open a new Wolfcamp Field or obtain 20 to 40,000 barrels out of the Yeso and San Andres.

Q If the -- your request is denied, will waste result?

A Yes, sir.

Q And how will that be?

A The gas I've -- the gas and the oil I've described in my statement would not be recovered.

Q Were Exhibits One through Nine prepared by you or under your direction and supervision?

A Yes, sir.

MR. CARR: At this time, Mr. Quintana, we would offer Exhibits One through Nine.

MR. QUINTANA: Exhibits One

through Nine --

MR. KELLAHIN: Excuse me, Mr. Examiner, there are objections to certain of the exhibits, sir.

MR. QUINTANA: You may proceed.

MR. KELLAHIN: I'd like to ask this question -- the witness some questions on voir dire about some of these exhibits.

MR. QUINTANA: You may proceed.

VOIR DIRE EXAMINATION

BY MR. KELLAHIN:

MR. KELLAHIN: Mr. Examiner, I have no objection to the summary of dates and events on Exhibit Number One. I'll pass to Exhibit Number Two.

Q Mr. Boneau, the three P/z curves prepared by you on the Dayton Townsite, the Bob Gushwa, and the Flint Wells, when were these exhibits prepared by you, sir?

Was this before or after the January 16th hearing?

A The calculations for the Bob Gushwa and the Flint were done immediately before the January 16th hearing and my testimony regarding the amount of gas in fact resulted from those calculations.

The exhibits, these pieces of paper were prepared within the last week, and the calculations on the Dayton Townsite done in that time.

Q The data from which you've made all the P/z -- P/z calculations is data that was available to you prior to the January 16th hearing, was it not?

A Yes, sir, that's correct.

Q Exhibit Number Three is the calculation of dollar value based upon the Flint P/z curve that's in Exhibit Number Two, so Exhibit Number Three is also information that was available prior to the January 16th hearing from which you could have made this calculation of economic damage.

A At that hearing I specifically mentioned the 1.5 BCF of gas, yes, sir.

Q All right, sir. Exhibits Six and Seven, which are the two geologic cross sections, are compiled from logs that were in existence and available to you prior to January 16th, 1985, were they not?

A The answer to that turns on what you mean by available.

Q All of those logs were in existence prior to January 16th, 1985?

A I believe so, yes, sir.

Q All right, sir. Exhibit Number Four has attached to it a chronology by days showing what Yates proposed to do to the Flint Well and this cronology, if I understand your testimony, is the chronology you submitted to Mr. Quintana after the hearing but before the order was entered.

A That's correct.

Q Exhibit Five is based upon information you derived from the Canyon test that was conducted subsequent to the order.

A That's correct. It is the March 8th to March 16th evidence (not clearly understood.)

Q All right. Exhibits Eight and Nine is information that was available to you prior to January 16th, 1985.

A Most of that information. There's a well completed in January 25th, 1985, on Exhibit Eight. The actual cums are not available at that date but the pattern of the production was available by that date, yes, sir.

Q The additional information used that was available only afte January 16th, 1985, would not have changed your conclusion that you've drawn from those two exhibits, would it?

A No. The Flint Well was an excellent candidate for recompletion to the San Andres and the Yeso on January 16th, 1985, on July 4th, 1984, pick a day.

Q All right, sir, thank you.

MR. KELLAHIN: Mr. Examiner, we have no objection to Yates Exhibit One, simply a summary of events that is helpful to all of us.

Exhibit Number Five is obviously available new -- newly acquired available data that was not discoverable prior to the last hearing and we hae no ob-

jection to that exhibit.

As to all other exhibits, we believe that they, Yates and their counsel have failed to satisfy the new evidence requirements of State of New Mexico versus Luttrell, that's L-U-T-T-R-E-L-L, found at 28 New Mexico 393, and what that is, it's the fundamental case in New Mexico that establishes the five part guideline for the introduction of newly discovered evidence that would justify the Commission or the Court to change their prior order.

We believe that all the evidence that they have used for the rest of these exhibits does -- fails to meet that newly discovered evidence test and therefore is not admissible.

MR. CARR: Mr. Examiner, Mr. Kellahin has cited evidence that -- has cited a case which states if there was evidence and you withhold it, you can't then come back and raise that evidence in an attempt to get a prior order changed.

What we're talking about here is a number of zones that we are interested in going in and attempting to complete in. Nothing in the prior order would preclude us from going in to each of those.

We have presented data, data that we've relied on and which was used in reaching the conclusions that Mr. Boneau testified to back last January.

We're here today because you called us before you and you called us before you to show if

-- to present evidence from which you can determine whether or not the Pan American Flint Gas Com No. 1 is capable of commercial oil and gas production.

We're simply here trying to comply with that and to also show you why we believe it should not be used as a salt water disposal well.

I don't think the case that Mr. Kellahin cited is on point here and I believe all we are doing is simply trying to meet the directive of your show cause order and come before you and present the kind of data that is required by that so that you can act consistent with your statutory directive to protect correlative rights and prevent waste.

We're not pretending that this wasn't available at that time but you seemed to -- you, the Division, in view of certain directives we got from the Artesia Office and others concerning other zones, to be interested in why we felt other zones were capable of producing in commercial quantities.

That is why have put this on. We think the objections are inappropriate. They should be overruled and each of these exhibits admitted into evidence.

MR. KELLAHIN: May I close debate on my objection, Mr. Examiner?

MR. QUINTANA: You may.

MR. KELLAHIN: All this evidence is available to, and some of which was discussed at

the prior hearing. The only reason that Yates is trying to use the old evidence again is they're up against a forty-five day period in the order that they don't want. That constitutes a collateral attack on the prior order of the Commission, unless Yates can come in and show you with new evidence that could not have been discovered prior to the last hearing that they need more time, other than the forty-five days.

What they have told you today is the same story they told you before; the same story as the one that you gave them forty-five days to perform in. They now say they don't like it. They want a change, and the law precludes you from making that change unless you're satisfied that there is new evidence discovered and available only after the last hearing from which you can change the period of time in the past order.

That has not been presented to you. You have no other choice but to sustain my objection.

MR. QUINTANA: Mr. Kellahin, Mr. Carr. I won't -- to be really frank with you, I'm in a tone of mood today where I'd like to settle this the best way I can.

In these circumstances I have heard what you've said, Mr. Kellahin, but I'm going to go ahead and allow this evidence and give it the weight -- I am very much aware of -- of the circumstances and what the issue is here.

I just believe that I want to give everybody their fair shot, last chance, to state their opinion and I will put the amount of weight on it that I think is necessary. You know, I may put zero weight on them, one percent, 100 percent. I'll put the necessary weight based on what evidence is presented and what was presented in the last hearing.

You may proceed, Mr. Carr.

MR. CARR: I have no further questions of Dr. Boneau on direct.

MR. KELLAHIN: I have some cross examination questions, Mr. Examiner.

MR. QUINTANA: I'm going to -- Mr. Carr, did you ask to admit these exhibits?

MR. CARR: Yes, I request they be admitted.

MR. QUINTANA: Exhibits One through Eight, is it?

MR. CARR: One through Nine.

A Nine.

MR. QUINTANA: One through Nine will be entered as evidence.

You may cross examine, Mr. Kellahin.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Boneau, I'm very much concerned about your statements with regards to the testimony you provided to say that you have evidence that Blanco introduced fluids into this well in an unorthodox way that you say suggests but are not conclusive evidence of damage to the Morrow zone.

That's a very serious problem, sir, and I'd like to discuss for you in detail exactly upon what you have based that statement.

I have not seen any of the exhibits you've introduced thus far that address that issue. You said you had evidence of fluids, sir. What is that evidence?

A I said there was evidence. I believe I said the evidence was not conclusive. If the -- if Blanco actually did what the evidence suggests, the damage is conclusive. The thing that's not conclusive is the evidence. Are we clear on that, at least to start?

Q All right, what is the evidence?

A The evidence --

Q Is it documentary evidence or what?

A The evidence is, as I said, two what I call bills that -- this one says --

Q Before you read what they say, may I see a copy of what you're looking at?

A Okay. One is a ticket from INW and one is a ticket from Hughes Services.

MR. QUINTANA: Let me interrupt here. Are you going to enter this as evidence?

MR. KELLAHIN: Yes, sir.

Q All right, sir, I have marked the xeroxed copy of these two tickets that you've handed me as Blanco Exhibit Number One to this case, Mr. Boneau, just so we can refer to it.

If you'll look at the top document, before I ask you about your opinion, would you simply describe for us what this is and where you got it?

A It's a ticket from INW, which is a water hauling company in Artesia that says they took 150 barrels of water for Blanco Engineering to the Flint lease Well No. 1 on September 12th, 1984.

Q All right, sir, where did you get this?

A We got that from INW.

Q All right, let's look at the bottom half of the exhibit. It says Hughes Services, Inc. What is that document?

A That again is what I would call a ticket for acidizing services, 2500 gallons of 15 percent NEFEHCL acid for Blanco Engineering to the Flint lease, and it's dated September 13th, 1984, and that was obtained from Hughes Services.

Q All right. Did you obtain that from

Hughes or did someone from Yates get that from Hughes?

A Another person from Yates got that from Hughes.

Q All right. Other than these two documents, Mr. Boneau, did you discuss with any of the individuals at IW or Hughes Services, Inc. the facts behind the issuance of these tickets?

A I did not, sir, no.

Q Other than these two tickets have you based your opinion with regards to the potential damage in the Morrow formation on any other evidence?

A Yes, surely. We did discover that Blanco had drilled out the plugs in the well and we did discover that an unknown to me amount of water was injected into the Morrow by Blanco. You all admitted that much.

That would damage the well. Yates had planned to drill out the plugs with air in order to keep fluid off of the Morrows. We had no chance to do that because you had put water on the formation either in -- legitimately following the November 9th ruling or, as this small amount of evidence suggests, entering the well at an earlier date.

Q All right. These tickets referred to an acid treatment and water hauling in September of '84.

Your direct testimony referred to the introduction of water into the Morrow in January in an unorthodox way.

What evidence did you have that water was introduced in January in the wellbore?

A If I said in January, I was mistaken. I do not believe I said that but I might have.

Q All right. All right, sir, when Yates --

A Your testimony at the last hearing --

Q Let's call it Blanco's or Mr. White's testimony, sir, just to keep the record straight.

A Thank you. I will try to do that, yes, sir.

MR. CARR: Even though it might be more accurate to say Mr. Kellahin.

Q Mr. Boneau, when you testified earlier that Yates had swabbed the well for a week, you referred to swabbing the Morrow at an interval from 9094 to 9116 or 9116 -- 9114.

A Yes, sir.

Q All right, sir. Is that the same interval that you believed Blanco introduced this water into? Are we talking about that same portion of the Morrow?

A Yes, sir.

Q Say again?

A Yes, sir.

Q Okay. What were -- what's the exact number of days that Yates swabbed that -- those perforations?

A Seven.

Q All right.

A Six or seven.

Q Do you have documentation or information that will tell you what the total number of barrels of water you retrieved from those perforations during the six or seven days swab period?

A Yes, sir. Would you like that information?

Q Yes, sir.

A We might recount the days while we're going through it, also.

25 barrels on the 23rd; 30 barrels on the 24th; 30 barrels on the 26th. The 25th I believe was Sunday. 39 on the 27th; and 66 on the 28th.

Q The swab of those perforations, if I understood you correctly, was done prior to Yates attempting to acidize those perforations?

A Yates did not acidize those perforations.

Q You moved to lower perforations and acidized those.

A That's correct.

Q Other than the one, two, three, four, I get five actual days of swabbing of those perforations --

A I get six, one, two, three, yes, sir.

Q All right, other than those five days of swabbing those perforations that are in question, what, if anything, did Yates do with those perforations?

A I would say zero, nothing; nothing sub-

stantial.

Q All right. Let's go on, Mr. Boneau, to the Canyon test and you told me that your Canyon test resulted in about 2 barrels of oil and about 70 MCF of gas?

A Yes, sir.

Q How was that test information passed on to you, Mr. Boneau? Did you get that --

A It was passed on to me a number of ways. The completion foreman tells me with his voice. I read the drilling report, which is basically his report on paper, and I have in this particular case, I have reports from Bennett and Cathey, which is a commercial testing company in Artesia. So that when we obtained a good show of oil and gas from this zone, we hired Bennett and Cathey to take their equipment out there so that an independent and accurate measurements could be made.

Q I wonder if we might have at this time, Dr. Boneau, copies of the drilling report that you are reading from and a copy of the report done for you by the independent company.

Do you have extra copies of that?

A I don't -- well, just a second. I do have extra copies of the independent report.

MR. KELLAHIN: I wonder if we might take just a brief recess and have copies made for the hearing purposes?

MR. QUINTANA: Yes. We'll take

a five minute recess.

(Thereupon a recess was taken.)

Q Mr. Boneau, let's identify the two documents that I've requested you make copies of and which you have, I believe we have marked as Yates Exhibit Number Ten the daily drilling report summaries, and --

A I have it just the opposite.

Q I'm sorry, Exhibit Number Eleven will be the daily drilling report and Exhibit Ten is the Bennett-Cathey report.

A That's my understanding of how they're marked.

Q Yes, sir.

A That's right.

MR. KELLAHIN: For purposes of the hearing, Mr. Examiner, we would move the introduction of what we have had Dr. Boneau identify as Blanco Exhibit Number One, which are the two water tickets, and as well as, with Mr. Carr's concurrence, his Yates Exhibits Ten and Eleven so that we might discuss all of these.

MR. CARR: I have no objection.

MR. QUINTANA: Yates Exhibits Ten and Eleven and Blanco Exhibit Number One will be entered as evidence.

You may proceed.

MR. KELLAHIN: Thank you.

Q Let's go back, Dr. Boneau, and talk about the Canyon test. Would you describe for us again the type of test, the length of test, and then the test results, and show us from the drilling summary report, Exhibit Eleven, where we may find that information?

A The Canyon test began on March 8th, which means it's on the drilling report for March 9th.

Q All right, sir.

A 3-9-85, at the bottom of page three, near the bottom of page three.

The first day it says perforated, 7944 to 7954, packer leaking, a bunch of other nonsense, but nothing particular happened that day other than it was perforated.

On the 10th the well was acidized with 1000 gallons of acid; flowed and swabbed back; 18 swab runs; recovered 55 barrels on the last run; 10 to 15 percent oil; short of load 31 barrels and not all the acid treatemnt was even recovered yet. We shut the well in for a pressure measurement. Shut in and run 36-hour pressure bomb are the words on that.

The next day there's analysis of the water that was swabbed out of the well previous to it being shut in for pressure.

And on the 12th, pulled the pressure bomb and pressure was 1977 psi down hole at the mid-perforation.

Set tester unit, which was -- well, which

would be the -- the Bennett equipment and it was -- it was used briefly this day and then it was used that we'll get to down in March 15th, and that's the information that's in Exhibit Ten, is the later use of it.

That's all.

Q All right, when we look at the test information, then, you have extracted from the test information the 2 barrels of oil a day and the 70 MCF a day that were used on Exhibit Number Five in talking about the value of the Canyon production?

A That's correct.

Q Let's talk about the 70 MCF a day value you've used, Dr. Boneau.

Do you believe that this well has the ability to sustain production at that rate, and if not, what is required before we will know whether or not it will sustain production at this 70 MCF a day?

A I do not know if it will sustain that production. It had leveled out at that production rate over the last hours of the test. The only way I could tell would be to test -- to test the well further. In the absence of -- of all this goings on we would attempt to put the well on production and test it for a week or a month, is what we would do.

Q When you talk about the dollars spent to date, the $70,000, is that the money directly attributable to the Canyon test or is that the total test for the entire

well?

A That's the estimated cost for the total work on this five pages of drilling report that covers the period from February 22nd to March 16th. In fact, at the bottom of page four you'll notice an entry right above the water analysis says ETCTD723662, estimated total cost to date, and that is the number. That's exactly what it was. Estimated total cost to date for our work on the Flint.

In order to obtain an estimate for the work on the Canyon zone, you would go back to the -- the point before the Canyon was tested. Estimated total cost to date for that date was about $29,000; subtract that from the 70, $41-$42,000 was spent on the Canyon test.

Q In order to recover the $70,000 using this test production information, takes about a year to do that.

A Yes, sir.

Q What will be the total completed well producing costs? You've got more numbers in here than 70 in order to produce this from the Canyon, would you not?

Let me say this again. I think I confused myself.

A Yes.

Q What is the total cost of completing a well so that it will produce from the Canyon?

A It depends whether it would flow or pump. We would need -- we would need surface equipment in addition

to what we have here basically. We'd need a -- probably need a pump jack. We would need a separator. We would need a tank battery. We would need $30-50,000 worth of equipment.

The $70,000 is a -- what was a rough number that was on the drilling report and in thinking about it now we say $40,000 spent on the Canyon, say $50,000 surface equipment, $90,000, $70-to-$90,000.

Q What do you do with the rest of the costs of the test to date if you don't include them in the cost for the Canyon?

You've confused me now. You've taken the $70,000 number, which I thought were the total expended to date for testing the Morrow and all that.

A Yes, that's true.

Q All right, that includes the acid treatments on the Morrow?

A Yes.

Q All right. You would use that total number plus the costs of the surface equipment, separators, pump jack, whatever you needed, is an additional $30-to-$50,000?

A It's a philosophical question and the question is basically, does the final zone you end up in have to pay out everything you've done in past history or do you worry about -- or do you take the point that you write off some costs and go ahead with the zone of interest.

If we're going to go to the Wolfcamp, do we need to say that the Wolfcamp has to pay off every zone downhole to be commercial. We don't do that but that's a philosophical question that different companies answer different ways.

Q I don't want to be philosophical, Doctor. The order requires a commercial well and I want to find out what your test is for commerciality, --

A A commercial well --

Q -- if you know.

A A commercial well means to me that it pays the daily operating costs, that you can operate tomorrow and obtain more income than you pay out tomorrow and the next day and the next day.

A well, you drill a well and you have a blowout and it costs you $50,000,000 to drill the well, you know, you're never going to make any money on that well but you can sustain -- you could produce a million cubic feet of gas a day and be making an incremental dollar of, you know, thousands of dollars a day. It will just never pay out these huge costs, you know.

To me that would be a commercial operation, producing that well at $1,000,000 a day, but if you put in the sum cost of the blowout and burning down the rigs and insurance for killing people, and all that, you're never going to make it, and that's the philosophy -- I called it philosophical. It's not really philosophical but that's

theory (inaudible.)

Q Mr. Carr asked you what is it that Yates wants out of this hearing and out of the order and I believe your response is you want another 120 days.

A 122 is what -- 122 days on Exhibit Four, and I'm not sure if you objected to Exhibit Four, but 122 days on Exhibit Four would be required --

Q All right, let's look at Exhibit Four.

A -- to test the zones that have excellent technical merit.

Q Let's look at Exhibit Number Four. Since the order was entered on January 30th of '85 have we moved beyond day one on Exhibit Number Four?

A On the two legal sized sheets --

Q Yes, sir.

A -- of Exhibit Four? We have moved past day one, yes, sir. We have not done what we intended to do with the original Morrow perfs because we found out that they had been damaged and the main plan A was shot down, and so we were -- had to change the plan.

We are basically to day sixty-seven. Retreat to Canyon zone -- whoop, whoop, whoop, excuse, I'm sorry.

I was mistaken there. So we are basically to day fifty-four.

Q Okay.

A At the Canyon zone not feasible, and we

go on after the Canyon zone. Set a cast iron bridge plug, go to the Wolfcamp. We're to that point.

Q All right. The two page summary shows down through 110 days.

A Yes, and it has a sentence after that.

Q All right. Are we talking about --

A We're talking about fifteen days in the Wolfcamp, exactly like is on the exhibit. We're talking about forty-two days in the Yeso, exactly like is on the exhibit, the legal sized pages. We're talking about forty days in the San Andres and the note on the first page says, procedure similar to Yeso procedure.

And we're talking about twenty-five days in the Morrow, which is eighteen days that we -- that were on the exhibit. They're page -- they're days -- I'd have to figure out exactly, but they're days roughly five to twenty, that we didn't do because we found out that the well had been damaged, plus, as it says on the first page, the twenty-five days was made up of seven days which was required to drill out to get us back down there so we could make a real effort to undo the damage that was done to that Morrow zone.

Q Okay, and your exhibit shows that we're talking about actual days of work and you have not talked about weekeds and holidays?

A No. You're right, and our normal procedure has been to not work on Sundays.

Q If the Commission grants you another opportunity to enter the wellbore and that order is effective April lst, are we talking about 122 calendar days or are we talking about more than 122 calendar days in order to accomplish the work days you have on the exhibit?

A I would of course feel much more comfortable with six months to accomplish our work.

I am saying that we're talking about 140 to 150 days counting additional Sundays.

MR. KELLAHIN: May I have a moment, Mr. Examiner?

MR. QUINTANA: You may.

Q I'm losing track of the days, Mr. Boneau. Where were we on March 16th, '85, and I think you told us you stopped work in the well.

A On this legal sized sheet we're at approximately day 53, 54, the bottom of the first page.

Q That takes us through the Canyon test?

A That takes us through the Canyon test. Day -- day 52 was the -- thought of as the end of the evaluated well completion on the Canyon Lime zone.

Q All right. Now --

A We would start with day 53 if we were going to go out there and continue with this.

Q Okay. Is March 16th the day in which the forty-five day period expired or is that March 16th date including the two week extension that was granted?

A March 16th is the day the forty-five days expired and it's our understanding the last day we could do work. It's the last day we did work.

Q To your knowledge was there ever any extensions granted beyond the March 16th, '85 date?

A My understanding of that was that on the Friday preceding that, I don't remember if it was the 14th or 15th or what date, we thought that we were going to be able to have an extension to do work. The story I got the following Monday was that we could only continue work if we continued work on the same zone that we were presently in. We had reached the end of our work on that zone according to our schedule. Under those conditions we got the rig down, moved it off, and waited for the hearing, and there was essentially no extension.

Q All right, sir.

A From my point of view.

MR. KELLAHIN: I have nothing further. Thank you.

MR. QUINTANA: Mr. Stamets, do you wish to ask some questions?

QUESTIONS BY MR. STAMETS:

Q Mr. Bonneau.

A Yes, sir.

Q Before I ask you questions, I'd like to recommend that the Examiner take administrative note of the

Commission files on this particular well and with that in mind, then, I'd like to turn to Form C-103, which was filed on this well in August of 1970, which is the Notice of Intention to Plug and Abandon, and reading from that, this was filed by someone whose name I cannot read, but who claims to be the Area Superintendent for Pan American Petroleum Corporation.

And it says, well has watered out; unable to return to production status. No workover possibilities. Proposed P & A as follows, and then it goes on.

Now I'm wondering if indeed this well watered out. Could that explain the third page of Exhibit Number Two, could that explain the difference between where the well stopped production and what you calculate as, say, 1.5 BCF? Is that -- could that not actually be represent of natural gas but water in the reservoir which has encroached in the well and effectively stopped production?

A I'll give you the answer that I gave to Mr. Kellahin to a question in a similar nature. Some of the Mr. Yateses had an interest. Martin Yates had an interest in the Flint Well and they claim to have, you know, first-hand knowledge of what was going on at that time, and so they've told me some stories that disagree with what's written there.

I've looked extensively through the record and that well produced through April of 1970. In March of 1970 it averaged 1100 MCF of gas a day and 5 barrels of

water a day. They had produced at approximately that rate for the previous two years. It had produced a little water for two years.

In April of 1970 it produced, according to C-115's, one day. On that one day it produced 1,039 MCF, 1,039,000 cubic feet of gas, essentially the same we'd had in producing. It produced 6 barrels of water according to the C-115 that one day.

There is no evidence that water production increased. There is no evidence that gas production decreased.

There is no evidence in the record, in the production record, that it watered out. There is the statement that you -- that you read, which is somebody's opinion in Pan American.

In January I gave three reasons why I thought perhaps Amoco would do this thing, which seem a little ludicrous today and I'm not sure I can remember those three reasons, but low gas prices was one, but the unusual situation was that Amoco was not connected to the TransWestern Pipeline. They had a prior contract and they were carrying the gas through a small flow line across the Pecos ten miles to the Empire Abo Gas Plant, and they had a very ineffecient production line there with large friction losses and they -- it was not a very good way to operate, and that might be a contributing reason why they stopped producing from the well.

The production evidence is that the well was turned off and they walked away, which, you know, is hard to understand, but that -- that's the evidence.

Mr. Yates tells me that he tried to get them to put a compressor on the well and he believed at that time that there was a lot of gas left in it, and the further part of the story is that Amoco had an interest in this Bob Gushwa and this Dayton Townsite well that we operated and we wanted to put compressors on and it took I'm told months of arguing to get Amoco to approve that and they would not approve it finally we, you know, paid their portion of putting the compressors on.

So there is mystic folklore back there and I'm not sure what exactly to make of it, but there's -- well, I expect when a well waters out that the gas production dies and then water production comes up and at the last hearing I testified that 50 to 100 barrels of water a day is the kind of water you expect in a well watering out and could find no evidence of that kind of thing happening in this -- in this well.

Q To the best of my recollection this well is located on the east side of the pool. Does that match your recollection?

A That's correct. That matches my recollection, yes, sir.

Q And my recollection is that water does encroach on the Atoka Pennsylvanian from the east? Does

that match your recollection?

A The east side of the pool is lower than the west side, that's correct.

Q How about the water encroachment? Are you familiar with that? To the best of your knowledge is water encroachment on the east side?

A I do not know about any water encroaching on the east side. I will not deny that it is encroaching. I do not know.

Q Assume for the moment that water was -- had been encroaching on the east side, and this well was plugged in 1970, has there been production from the reservoir since 1970? Not necessarily from this well but from other wells?

A Well, the wells that I've looked at, and of course not all of them, seem to produce as if they're individual reservoirs.

Now the Morrow is in channels and so there -- it's entirely believable that not all the wells are in the same pool. It's not a blanket sand. I think everybody will at least agree with that, that much.

It's hard to believe that every single well out there is in a separate, separate reservoir. The ones I looked at act that way.

The Dayton Townsite -- I believe that there's very good evidence that the Dayton Townsite, which is the well to the west, is not in the same reservoir as the

Flint and no gas has been produced through the Dayton Townsite out of the Flint reservoir.

The Bob Gushwa is the same story and we operate those, put water in those, and the facts agree with my conclusion.

I do not know if there's another well operated by someone that could be connected to the Flint well.

Q For the -- let's just make some assumptions, that the Flint Well did water out and that there are other wells in the pool which are producing from this same interval in connection with the same well. Would that additional production cause the water to migrate even further up dip past the Flint Well?

A Yes, and I would think even without the production the water would migrate further up dip. It would tend to want to equalize the pressure through the whole thing and when you had a drawndown pressure the water was moving in, it would tend to move in until the pressure was equalized in the water/gas reservoir.

Q In your talking with Mr. Kellahin earlier about what's commercial and you were describing a situation where the current income from a well exceeded the operating cost and even though this well might never pay back the cost of production you indicated you felt that might be commercial. Is that correct?

A Yes, sir.

Q And if all of your wells were like that, would you be running a commercial operation?

A No, sir. Of course not.

Q Is what you're describing what's commonly called a salvage operation? You've invested so much money you're not ever going to get all your money back but you want to salvage what you can?

A Well, that's not the way I use salvage operation, but that -- your description may be the more common use of salvage operation.

Q You may or may not feel that you can answer this question. Do you believe that any producer has the right to produce through another party's wellbore?

A I can't conceive what that question means.

Q Well, let's just assume for the moment that -- that you've got a lease and another party has a lease which is to a deeper horizon and they drill a well to that deeper horizon, does the fact that that well penetrates your shallower lease give you any right to produce through that other party's deep wellbore?

A It obviously does not, well, not while they're operating it.

Q So as long as that wellbore belongs to somebody else you don't have any rights to be using it.

A That is my understanding. I'm, of course, no expert in this area but that's the way I've oper-

ated down --

Q I don't want you to answer these questions if you don't feel competent to answer them.

A Let's quit two questions ago.

Q To the best of your belief do you think that a person would have to make some arrangements to acquire the rights to that wellbore?

A That's what I've done in the past in similar situations, yes.

Q Okay.

If this wellbore belongs to Blanco, it would seem that the logical extension of the questions and answers that we've had here would be then that Yates would have no rights to produce through this wellbore, is that correct?

A I think we're past the point where I'm competent to answer. I don't agree with that but I don't know if --

Q Okay.

A -- I'm competent to discuss it.

Q That's fine. If in fact the zone of interest, the zone which is to be -- supposed to be used for salt water disposal, has watered out in this well and is not capable of commercial production, are there correlative rights of Yates Petroleum in that zone which could be damaged by utilizing the zone for salt water disposal?

A Would you repeat that?

Q Okay.

A Please.

Q Okay, we're talking just now about the zone that Blanco proposes to use for salt water disposal and if the records of the Division are correct, and that zone did water out, and if it is not capable of commercial production of gas, are there correlative rights of Yates which would be damaged by using that zone for salt water disposal?

And correlative rights roughly are described as the opportunity to produce the reserves, oil or gas, in the pool in the portion under your acreage in the entire pool?

A If the -- if the well is watered out in the Morrow, as you're assuming, there would not be commercial gas around the well that Yates could get. By around the well I mean 500 feet, 1000 feet. It's possible that there would be gas on the west half of the 320-acre proration unit. The well is on 1980 -- 1980 from the south and 1980 from the east, and it's possible there would be gas over on the west 160 of the proration unit that may or may not be a commercial target for a different well and continued injection into that zone might fill the whole reservoir with water so that that gas could not be gotten, but it seems to me unlikely that it would be a commercial venture to drill another well on that proration unit to get that gas.

I'm trying to answer your question. I'm

--

Q Yes.

A -- maybe not making sense at all.

Q Have we had any evidence presented in this case through any of the hearings to your knowledge about the likelihood of commercial gas on the west side of this proration unit?

A No. No evidence at all. That -- that has not been discussed.

MR. STAMETS: I have no further questions.

MR. QUINTANA: Mr. Stamets, I'll take administrative notice of the case filed for the well -- the well file for the Flint No. -- the Pan American Flint Well -- Gas Com Well No. 1.

Do you have a question, sir?

MR. CLEMENTS: Yes.

QUESTIONS BY MR. CLEMENTS:

Q Dr. Boneau, on that 70 MCF a day that you're getting out of this Canyon, have you had a gas analysis run on that? Is it all -- are you going to indeed be able to sell 70 MCF of gas or is part of that going to be nitrogen or some inert type gas that you'll have to discount that phase?

A The last gas analysis, as I mentioned, was 1400 BTU gas, which means that there's mostly hydrocar-

bons.

There were -- the well was treated with acid and CO2. The last gas analysis had 3 percent CO2 and that would be expected to go away, but the CO2 content was still at 3 percent. I think that's the essence of the answer to your questioning.

Q But there was no nitrogen or anything else, you say?

A No, sir.

Q I noticed on your projection for your 100 and however many days it was testing you also said you wanted to test 40 or so many days for the San Andres. I've forgotten the figures you gave here.

A Yes, this says similar to the Yeso.

Q Yeah, I know. Do you already have a San Andres well on that 40 acres?

A Yes, sir.

Q Would you then need to test it or does not that other well (not clearly understood)?

A I feel 99-64/100 percent sure, or whatever the number is. I feel sure that we will get a commercial San Andres well at that location.

Q Oh, I don't doubt that because you've already got one on the same 40.

A Yes. But in getting a San Andres, a shallow San Andres well, as you know, Mr. Clements, you treat them and frac them big and you pump back sand and

water for awhile, and it takes 30, 40, 50 days until the well is a producing oil well.

Q On the -- on one of your exhibits here, on the Number Eight, where you show the nearby Yeso production, now you show the cum figures down here to the south of this well. What period of time are we talking about on most of these wells to get this cum value that you show on here?

A The wells with low cums were drilled recently.

Q Recently?

A The wells with high cums were drilled '78, '79, '80, that kind of period.

Q '80, in other words we're talking about four or five years, maybe?

A About four or five years, maybe, yes, sir. If you'll look closely you'll see a lot of instances of second wells on forties.

Q Uh-huh.

A One well with 30,000, one well with 8,000 on the same 40. The 8,000 is a second well drilled within the last year or so.

MR. CLEMENTS: I have nothing further. Thank you, Dave.

MR. QUINTANA: Let the record show that the questions are coming from Les Clements, the District Supervisor of the Artesia District Office.

Any further questions of the witness?

MR. TAYLOR: Yeah, I have one.

CROSS EXAMINATION

BY MR. TAYLOR:

Q Dr. Boneau, you stated in your testimony in the hearing in January 16th that if there was a rate below 100 MCF a day your recommendation would be to give up the well. If -- if right now is the end of your period to test that, would you make a recommendation, such a recommendation to Yates?

A The testimony -- several answers to that question.

The testimony that you're referring to was directed at that Morrow zone, 1.5 BCF, huge amounts of reserves, and without knowledge that that zone had been damaged. Okay. We're not requesting, I think, it's not exactly the same apples and oranges answer or the same circumstances.

I'll try to get you an answer. The -- my recommendation at the present time would be to put a retrievable bridge plug over that Canyon and go test the Wolfcamp, and to that, you know, as I understand it, it would be give up that zone at least temporarily and another point to that same question, the 70 MCF a day is rich gas. It has a BTU value of 1500 -- at 1400 BTU. It has the same

BTU value as 100 MCF a day of Morrow gas.

So it is right on -- right on the border of that 100 MCF I was talking about in the previous hearing.

But in the absence of all this goings on and opposition, my recommendation would be to put a retrievable bridge plug over this zone and to go test the Wolfcamp and hope we get a 25-50 barrel a day from the Wolfcamp. If we get this, if we get a marginal producer from the Wolfcamp we might, and again in the absence of all this, consider putting the two zones together.

The Canyon zone as it is is not a strong, commercial zone.

Q In your experience as an engineer, is a test that shows 70 to 75 MCF of gas a day, how long is that going to hold out on a well like this, which is, at least the records show, had watered out previously?

A Well, now, whether or not the Morrow watered out would have absolutely nothing to do with the Wolfcamp. The well, the zone has nothing to do with the Canyon. We're both mixed up, I'm sorry about that, has nothing to do with the Canyon. The -- what little data we have on the Canyon shows that it's very, very tight, which means that it would produce at low levels but has a chance of producing for an extended period of time.

If we are talking about a Morrow well making 70 MCF a day I would expect that it would fall off very rapidly.

Q Was this --

A A Canyon zone, you know, might -- might produce a year or two or three and only fall from 70 to 50 MCF a day.

Q Knowing that you only had forty-five days from the date of the last order in which to test, why didn't you test those reservoirs that you felt were most likely to be productive, those strata, or whatever?

A My answer to that is because we felt that once we knew that Blanco had damaged the zone the rules were all changed, had to be all changed in order to be at all fair, because that was the main project. We had an excellent chance at an excellent well there and that the Examiner and the Commission gave the order without understanding and when that was found out that that had been done, that the rules simply could not be applied literally as they had been and that the plan, your plan and our plan had to be totally different and the most reasonable thing for us would be to proceed as we would test the well in a prudent manner, and that's what we chose to do.

MR. QUINTANA: Mr. Boneau, on your testimony would you restrict your statements alleged -- alleged -- on allegations that Blanco has damaged the Morrow formation until that has been proven so or not so?

A Surely.

Q I'm confused about that. You can you say you know it was damaged? I don't understand this whole line

of damage to the formation. Explain that to me. How do you know there was damage there?

What -- what is different from the fact that Blanco had never been there and you entered that -- re-entered that well and found what you found? What's different from -- what's different from what you found from what there would have been had nobody been in that wellbore?

A The plug was drilled out. That's --

Q I mean besides that, what damaged the formation --

A That's the critical thing. That is the critical thing.

Q What's it?

A Just that water was put on the formation. That's all it would take --

Q Wasn't there water there previously?

A The water that was there previously would have been Morrow water from the formation, which is friendly to the formation.

Yeah, the prudent thing would be to drill it out with air so that you did not put water on the formation and I've got data here, I can show you how Morrow water would damage, but the truth is that water damages Morrow wells.

Q In your professional opinion what are the chances that this is a commercial well?

A That this is a commercial well?

Q That this will be a commercial well if you're allowed to do all the testing you want to do and it to a well, considering all the other wells in the area and what you know about them?

A I would bet you next month's paycheck that it's going to be a well. I think there between 90 and 100 percent that it's a commercial well.

Q How many Wolfcamp producers are there within a mile of this well?

A Zero.

Q Zero. Have there ever been any Wolfcamp producers within a mile of this well?

A No, sir, not that I know of.

Q What makes you so sure this is going to produce from the Wolfcamp?

A I'm not sure that it's going to produce from the Wolfcamp. I'm sure that it's going to produce from the San Andres. I'm 90 percent sure it's going to produce from the Yeso. I'm some lesser amount sure that it's going to produce from the Wolfcamp, but overall it's going to produce from one of the three.

Q Does your certainty on this have to do with the fact that John Yates believes there's gas there and you guys are going to find it?

A No, that's back in the Morrow.

Q How many producers are there from the other horizons within a mile? How many producers within a

mile are there from the other horizons that you desire to test?

A Exhibits Eight and Nine would -- would show you that pretty graphically. There are approximately 20 San Andres producers within a mile and somewhat in the order of 10 Yeso producers within a mile.

Q When this well was first drilled was there no testing of other formations done?

A The records on this well are a little bit sketchy but the records say they drilled to 6000 feet. There was no obvious production from the Abo. They drilled on the 9249, I believe it was. They drill stem tested a zone in what I call the Upper Morrow, slightly above the producing zone, the old producing zone. They drill stem tested the producing zone.

They made some kind of a judgment that there was no flow into the wellbore from the Abo and I'm not sure what that means at all. They drill stem tested an Upper Morrow zone and found no productive zone. They drill stem tested the Morrow zone that produced for all those years and it drill stem tested sensationally. They ran pipe, perforated that zone, and produced that zone.

Q I guess that's all the questions I have.

MR. QUINTANA: Les Clements has an additional question.

QUESTIONS BY MR. CLEMENTS:

Q You talked about the formation water, Dr. Boneau, isn't there some areas that people are fighting with us and the gas company in some Morrow wells because of damage by formation water on the Morrow? They come to us and ask for hardship classification because we ruined their wells. Could this not occur in this well? I mean, sometimes not -- what I'm trying to say, they don't want to shut the well in because they claim it ruins it, and that's strictly formation water that's doing it.

Could this not occur in this well?

A Well, obviously, I think that the answer is it's possible. If formation water damages other Morrow wells, it's possible that formation water would damage this Morrow well, that's right.

You know, not all those hardship cases are approved or --

Q That's true.

A -- believable.

Q I fight them if I can.

A And quite often the problem is simply that they need to swab the water and they can't afford to swab the water. But if formation water damages other Morrow wells it could possibly damage this one.

Q That's all. Thank you.

MR. QUINTANA: Are there fur-

ther questions of the witness?

MR. STAMETS: I'll ask another one or two.

MR. QUINTANA: Mr. Stamets, you may proceed.

QUESTIONS BY MR. STAMETS:

Q Mr. Boneau, do you know if Yates operates any salt water disposal wells in the general area where the water goes into the Morrow formation?

A Yes, they do. They operate the two wells we've talked about. The Bob Gushwa and the Dayton Townsite are disposal wells into somewhere in the Morrow zone.

Q Did those become disposal zones when they had been -- had become depleted in the Morrow formation?

A Yes, sir.

MR. STAMETS: That's all.

MR. QUINTANA: Any further questions of the witness?

If not, he may be excused.

MR. KELLAHIN: We have a witness to present, Mr. Quintana.

MR. QUINTANA: Mr. Kellahin, you may present your witness.

MR. KELLAHIN: Thank you, Mr. Quintana. We'll call at this time Mr. Paul White of Blanco Engineering.

MR. QUINTANA: Mr. White, would you please come up and be sworn in at this time?

MR. WHITE: Yes, sir, I will.

(Witness sworn.)

PAUL G. WHITE,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q For the record, Mr. White, would you please state your name and occupation?

A Paul G. White, President of Blanco Engineering, Incorporated.

Q Mr. White, have you previously testified before the Oil Conservation Division as a petroleum engineer and had your qualifications accepted and made a matter of record?

A Yes, sir, I have.

Q And did you testify before this Division Examiner at the hearing held in this case on January 16th, 1985?

A Yes, sir, I did.

MR. KELLAHIN: We tender Mr. White as an expert petroleum engineer.

MR. QUINTANA: He is considered an expert witness.

Q Mr. White, some of the things that I'm going to ask you, you did discuss at the hearing in January 16th, but I want to go over certain portions of those things again with you, having you commence with the operations you conducted on the Flint Number Well pursuant to the original order by the Commission prior to the time you were notified by Mr. Stamets that he had rescinded the order.

I'm going to hand you a copy of what has been introduced as Blanco Exhibit Number One to today's hearing, which are the two water tickets, and ask you in chronological order to explain for us and tell us what was done with the wellbore and what was done in relation to this water.

A Let me start with this, with all due respect to Yates Petroleum Corporation.

The assertion here has been made that Blanco damaged the Morrow formation with water that we put on the formation.

As I say, with due respect to Yates Petroleum Corporation, I worked for Yates for one year and this was a very common thing with Yates Brothers, that there was damage to any well that didn't perform. It was kind of a philosophical thing. It went on in the halls and it -- it was just one of those situations where we knew that they were going to say the well was damaged. If it made 400 bar-

rels a day of oil, it should have made 600. If it was a dry hole, it should have made a well, and that was just common, and I want to point that out, that it's a common practice with Yates Brothers to assert damage.

Now then, we received an order from the Commission. Prior to our receiving the order we had Mr. Chad Dickerson, our legal counsel, call up here and talk with the Examiner and he told me by phone that there was no problem with the order, that we could go ahead and at least go to the point of seeing if this well was going to properly take water so we could order our additional equipment, our ground lines, the tanks, pumps, and so on, because there's a lag time of about six months on that ordering those pumps.

When Mr. Dickerson told us that, we rigged up on the well. Now we had to have a reverse drilling rig on that hole to drill those plugs and so what we did, we acquired the services of Completion Services. They have a tank there and they have to have it full of water to start their drilling.

So we ordered out 150 barrels of water. We placed this in the reverse rig tank and the rest in a frac tank we had rented there, to be used to drill the plugs, the only way I know to drill them, unless you did use air. There's no reason to use air to drill those plugs.

We used this water to clean these plugs out. The hole was loaded with water when we started. We did not lose any fluid to the Morrow perforations. We

didn't even lose any fluid to them when we cleaned out through the perforations.

Okay, we knew then that when the well was plugged it's common for the lowermost plug to be placed over the perforations and the perforations had taken the cement. So they were sealed off.

So we cleaned the hole out and circulated it clean. This is where 150 barrels of the water came from.

We close the casing and pressured up and, by the way, we testified to this on page 19, or one of the pages in the transcript. We didn't tell all that we did but it's in there. We weren't hiding anything that we'd done for the rehearing.

Okay, we got the plugs cleaned out and then we closed the casing and tried to pump in. We could not pump in the well at -- we finally pumped in the well at 2200 pounds.

We knew that that wasn't going to solve our problem as far as salt water disposal because we were approaching the -- or surpassing the restricted pressure that the Commission would allow.

So we called out then our 75 -- our 2500 gallons of acid and 75 barrels of water in order to flush the acid. There again we circulated the acid to spot; no water going in the formation; it wouldn't take it. We circulated the acid down the spot (sic) and then behind the acid we pressured up with water and we cleaned the tubing of

the acid and we probably pumped in and I don't know this accurately, but we only had 75 barrels there. We had to put 60 barrels behind the -- the acid to clear it into the perforations, and we wanted to flush it, so we finally put the 60 barrels of acid in which would have put 10 barrels in the formation. Then we put behind that probably 20 to 30 barrels of water and we got a two barrel per minute rate at 1250 pounds.

Okay, that wasn't all that good but we knew we could pump into the zone. We knew we -- we had a well that we could probably later break down further and so that's what we did to the well.

And at that point we pulled the tubing out of the hole and rig down and then after that the notification that the order was rescinded came down. We never did another thing to the well.

That well has been plugged for fourteen years with water on it. Pan American says it watered out. There again I can't see them leaving a million cubic feet of gas a day and plugging that well.

Q All right, let's go through the calculations so you can tell us how many barrels of water that you may have exposed to those perforations in the Morrow.

There's a certain volume of water in barrels that's in the tubing.

A Uh-huh.

Q It was circulated with the acid, what are

we talking about?

A The tubing would hold 56 barrels of water but when you circulate your acid to spot, you circulate that water, that displacement goes into the earth pit, and so you have not yet put any water in the formation.

At that time you shut the casing and you displace 60 barrels of acid -- it's really 59-1/2 barrels of acid -- plus the capacity of the -- that it takes to clear it.

So you're going to put 59 barrels of water behind that acid to get it in the formation; say 60 barrels.

Then we -- then we got a breakdown on the acid, a little bit of a break on our pressure where we could get into it and clear the perforations and then we put about 20 or 30 barrels, probably whatever was left on the truck, into the formation at 2 barrels a minute, 1250 pounds, so it's -- it's --there's no way that we could have put any water in the formation. We were wishing we could. We wanted to go on a vacuum. In fact we talked about it, which wasn't realistic, but that's what we wanted.

Q Mr. Boneau told us that Yates swabbed back during a 7-day period 190 barrels of water. Do you have an opinion as to whether or not that volume of water swabbed back by Yates would have been adequate to swab back and water that you'd placed on the formation?

A Yes, sir, that would have swabbed, the

hole was loaded, that would have swabbed the -- by the way, that pressure would have shut down at 800 pounds when we quit pumping it.

Now then, that, the answer to the question, Tom, that would have brought back the 60 barrel capacity plus whatever -- whatever, in addition to that, whatever was in that formation.

I stopped by the unit to check with the unit operator while Yates was testing this zone and he told me that they were swabbing from the seating nipple, which means that they were going to bottom, and they were getting a rate of about 1400 feet an hour in the tubing, which would indicate about 5 barrels of water per hour that he was swabbing.

And by going to the seating nipple he wasn't, you know, the well was loading up too much with water then, but just enough to keep 1400 feet an hour coming into the tubing, and he was swabbing that back, very little gas.

Q In your opinion is there commercial gas that can be produced by this wellbore out of the perforations that you propose to utilize for salt water disposal?

A I might can tell the Commission without any reservation, that before we got on the well, after we got on the well, and when Yates gets through, if this is the case, there is not any commercial gas left in the Morrow zone, and when they drilled the lower Morrow, I might add

this, --

Q Well, let's talk about the other zones, other than that one perforation that you want to utilize for disposal.

A Okay.

Q Your -- you've reviewed the information that Yates has with regards to their further attempts to complete this well for commercial production?

Yes or no?

A Yes, un-huh.

Q All right, sir.

A This was in the Canyon?

Q No, sir, in the Lower Morrow.

A Oh, the Lower Morrow, yes, I have.

Q All right. What happened then and did they obtain commercial production?

A Now this is information we had to get from the (not understood) operator pretty well, but we asked him about it. They did deepen to the Lower Morrow zone. Now they didn't drill that with air, I don't think they drilled it with air. I know they didn't. Why I don't know, but they did not, and in deepening to the Lower Morrow zone there was a time on this well that I was told that the Morrow perforations, either the lower ones or the ones we're talking about in the hearing, begin to take four barrels a minute, begin to lose four barrels a minute, and they were losing four barrels a minute to the perforations.

Now that comes from the trucks that were hauling water to the well.

Q If that occurs, what does that mean to you as an engineer?

A Well, it means -- it can mean several things.

It could mean that if the Lower Morrow perforations were open at that time it could be feeding into those.

It could mean that by this time the acid and water had gotten out past whatever cement damage was done when they plugged those perforations and it had broken down and was actually showing more of a capacity to take water.

Q Mr. Boneau has told us of those zones that Yates tested within the period of time allowed by the order, that they did test the Canyon zone and in his opinion they had a test result of 2 barrels of oil and about 70 MCF of gas.

Have you reviewed that information or are you aware of that test information?

A Yes, sir. I called Eddie Mahfood to get a test and Eddie gave me 1.7 barrels of oil, 73 MCF of gas, and 36 barrels of water.

Q For the record, who is Eddie Mahfood?

A Eddie Mahfood's an engineer for Yates Petroleum Corporation, and he told me then that they were

swabbing, that it would not flow, and that's the information I got on the test on the Canyon.

Q Based upon that information, Mr. White, do you have an opinion as an engineer as to whether or not that's a commercial zone?

A It is not a commercial zone at this stage of the game. There is no way.

Q Why not?

A Because it won't produce enough revenue to pay for the cost of -- you see, they're still having -- been a pump, a pump unit, a sucker rod, the engine, electrical tie-in, this all had -- the tanks bought to separate the production from their other production on the lease, so the 355 day payout on the exhibit is erroneous because I don't assume you're going to swab for 355 days.

Q If Yates is given another opportunity to further test this well, what adverse effects upon Blanco's correlative rights will that have?

A Well, it would destroy our wellbore. The, really the shame of this thing is just that the beautiful position of the well for salt water disposal will be wrecked forever and the fact that we cannot have the well for salt water disposal will suspend our Yeso drilling program and it will leave about-- this is an estimate off the top of my head -- it will probably lease about 300,000 barrels of Yeso oil in the ground down there in Section 25.

Q What is currently costing you to dispose

of or truck away the Yeso produced water that you would utilize this salt water disposal well for?

A The month of January we had $1.12 and we've got it now for $0.95 a barrel.

And the --

Q On a daily basis what would that be in dollars?

A Well, it's 600 barrels a day at 95 cents, so say $600 a day.

And I might add there that a 20-barrel a day well is uneconomical at that point.

Q Is the wellbore currently in a condition that you rendered that wellbore to Yates or is there additional work that's required in order to restore that wellbore to the condition in which you turned it over to Yates?

A There would have to be additional work done on the well if they restored it to the condition when we gave it to them.

There would have to be -- Canyon zone would have to be squeezed off and drilled out and tested and I would assume the Morrow perforations, the lowermost Morrow perforations, the second Morrow zone they attempted to complete in, would have to be squeezed off, also, if it could be restored in exactly the same condition as when we gave it to Yates.

Q Do you have an estimate as an engineer as to how long a period of time it would take to restore the

wellbore to the condition in which you turned it over to Yates?

A Well, if you did -- you have to drill out the plug on the Morrow, I assume, so you'd probably take, it would probably take about six or seven days to restore it to the original condition if all the tests held and squeezes held.

MR. KELLAHIN: Thank you. I have nothing further.

MR. CARR: I have a few questions.

CROSS EXAMINATION

BY MR. CARR:

Q Mr. White, I want to go back a little bit, too, in time.

When did you first start looking for a disposal well in this area?

A Well, we started looking for a disposal well, our whole plan was to drill two Yeso wells in Section 25, 18, 26, and establish an oil rate, and once those wells were tested in July, we got an accurate test on the two wells, a stabilized test, and at that point we began to look for a salt water disposal candidate.

I'll take that back, Mr. Carr. We looked earlier. We were researching the Commission files earlier than that in anticipation of having to have a salt water

disposal well.

Q When did you actually start having a problem in terms of -- or when did you really develop this need for a disposal well?

A Well, we developed the need just as soon as we acquired the Yeso acreage in Section 25, 18, 26.

Q And when was that?

A That was in -- Mr. Carr, I believe it was in -- it was 1980, early, early 1984.

Q Was that before or after you acquired an interest in the Copeland SN No. 1 Well, or what you call the Williams No. 8?

A It was after we acquired the interest in the Copeland.

Q What is the present status of that Copeland Well?

A It's a Yeso, a re-entry and a Yeso producer.

Q It's a re-entry of an existing well.

A Yes, sir.

Q Was that existing well when you acquired it open in this Morrow zone?

A No, sir, it had been -- it had been plugged. There was no production casing in the well.

Q Was this a possible well for a disposal well?

A No.

Q You could not have taken it down to the Devonian?

A No. When you start to talk about that, Mr. Carr, the expense is so prohibitive to drill that well back out and drill deeper to the Devonian and case it completely and cement it according to the Commission's specifications, it's just too expensive.

Q Can you even make an estimate as to what those costs might have been?

A I couldn't, Mr. Carr. I wouldn't want to without doing some numbers.

Q Now Mr. Kellahin may have just asked you this, but what costs are you incurring daily for the disposal of this water?

A About $600 a day with all wells pumping. Now we've shut two wells in, so we're incurring a cost now of about $300 to $400 a day.

Q Now concerning your interest in the Pan Am Flint No. 1 Well, I want to just be certain I understand this. Now your claim is based on a grant of right-of-way or easement from the surface owner, is that correct?

A We have a contractual agreement signed by -- the name escapes me, Mr. Carr, but it's signed by the surface owner and the mineral owner, the trustee for both.

Q Okay, and this is what you're basing your claim for the wellbore on.

A Yes, sir, we were told by Mr. Dickerson,

our counsel, to in all cases like this where there's a plugged and abandoned well, it's a nonentity, it doesn't interfere with anybody, it's just a plugged well, and we were told to be sure and acquire those signatures on a contract, agree with her on a cost and payment to her for salt water disposal payments, and -- and then we would have no problem.

Q Do you happen to have her name now?

A Let me see if it's on here. Lucille Daley. She's Senior Vice President, Moncor Trust Company.

Q Okay. Now when you went in and started working on the subject well did you do anything to test the Morrow zone before you started working on it to see if in fact it was capable to commercial production?

A No, sir.

Q And then you drilled out the plug and circulated cement, is that correct? You didn't?

A No. No, we just cleaned the plugs out of the 5-1/2 casing.

Q Is that what you used the acid for?

A No, sir. We just used clear water and a bit, six drill collars, and 2-7/8ths Reynolds tubing.

Q And then what did you do with the acid?

A The acid later was circulated to spot on the perforations of the Morrow zone and that acid was displaced into those perforations.

Q Now if we assume that this zone had been

capable of production, just assume that for the purpose of the question, putting acid on the zone and the work that you did could have impaired a Morrow zone, could it not?

A No, not if you were going after the Morrow zone to produce it, because we would have immediately fallen back.

Q But you did not.

A No, we had o reason to.

MR. CARR: I have no further questions.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q In your opinion, Mr. White, would leaving the acid treatment that you made on the perforations in the formation, would that have damaged the productive capacity of that formation to produce?

A Tom, we would have ot left it on there had we been attempting to complete a Morrow gas well. We would have used this same acid, nonemulsifying acid. It's supposed to be an acid that eliminates blocks, and we would have swabbed it back. I don't know.

Damage to reservoirs, as one of the examiners brought up, it's a -- it's a really wild thing, you know, it's an assertion a lot of times without proof.

MR. KELLAHIN: Nothing further.

QUESTIONS BY MR. CLEMENTS:

Q Mr. White, what date did you rig up your reverse unit? Do you have that in your file?

A We rigged it up on September -- right around September the 11th.

Q And you did drill out the plugs with fresh water?

A Yes, sir, we did.

Q Do you know whether Pan American, they probably drilled the well with what, mud, fluids?

A Well, sir, I don't know. I really don't.

Q I don't either. I was just asking.

MR. CLEMENTS: I don't have any other questions.

MR. QUINTANA: I have no further questions of the witness.

If there are no further questions of the witness, he may be excused, and counselors may present their closing statements.

MR. KELLAHIN: I believe it's customary for me to go first because it's also customary for me to go last and any time in between.

Because Mr. Carr has an overwhelming and insurmountable burden of proof, it is customary for me to have first argument so that he will have every possible chance to rebut and convince you that he is somehow

right.

Therefore, I think this is a matter in which the Commission, and we thank the Commission very much for the attention that you've given this case. There are a great many important cases here and appreciate the fact that you have given this extra special consideration. It's a case that's unique not only in terms of the Division but in terms of the legal issues surrounding the ownership of the wellbore.

Sometime over coffee we can talk about those legal issues. If Mr. Hall ws here maybe we could talk about them now.

But the case to be decided is whether or not Yates has had a fair and reasonable opportunity to test the well and we have moved considerably past the order of January 30th, 1985, in which the Commission found that there was insufficient evidence to determine whether or not this wellbore had the capacity or capability of commercial production.

Mr. White testified then as he testified now that this well was not capable of commercial production.

To remove absolutely any doubt about that the Commission gave Yates the opportunity to again test this wellbore for gas production, notwithstanding its long history that we could reasonably conclude that the chance of gas production were very small.

The Commission had, I think, everything that Mr. Boneau told us today he told us in some fashion back in January. He recalls his testimony a little differently than I read it from the transcript. There are two points that I want to remind you about, is that the Commission had before it Dr. Boneau's opinions, particularly on page 65 of the transcript. I'm talking to him about the length of time required to test the well and he says we might be on the well as much as three months, you know.

That became a point of concern for the Examiner. Subsequent to the hearing you requested that Yates give you an itemized, detailed schedule of the events that they would propose to conduct on the well. We have that again as Exhibit Number Four.

With that information available to the Examiner, and with Dr. Boneau's testimony, the Commission gave Yates forty-five days.

Now they come back and tell us that ain't enough.

My point that I've tried to stress all afternoon and will once more try to stress, is that if they were unhappy with the forty-five day period, they should have appealed this order to a Commission hearing. The problems they've told us about now existed then. The schedule for testing this well is the same as it was then. We've lost some time in there from the 30th of January to the 22nd of February. Mr. Carr explains what

they were doing. It should be come apparent to them that they were eating into their time and if they didn't like it, they should have done something about the order, but they didn't.

They're stuck with that order.

They come in today and they say we need more time because Paul White and Blanco, we suspect, ruined this well for us. They've ruined it.

The testimony is absolutely wrong. Dr. Boneau has speculated for us, he thinks, he's not sure, but he says that they've introduced water to the formation.

Mr. White was there. He's testified for you what was done to this formation with water. You can add it up as well as I can. He says they may have introduced a small quantity of water, say, sixty barrels. Yates swabbed back 190. It's not unusual to acid treat the Morrow formation and swab back water.

We don't have a gas well here. We never had had a gas well. This has been an oil well, a water well from fourteen years ago and it's still a water well.

It's our turn to have the wellbore. We think the order is clear. It's certainly not ambiguous. It's our turn.

We would request that the Division reinstate the original Order R-7693 effective imme-

diately, compell Yates to restore the wellbore to the condition that it was in when they received it from us or provide that they will compensate us in dollars for the expense of making that transition.

We think the Commission has acted properly in this case. We believed in January that this was not a gas well. Our believes have been confirmed by Yates' efforts and the Commission has acted responsibly giving them yet another opportunity to find the gas and they can't do it and it's our turn to use the wellbore.

Thank you very much.

MR. QUINTANA: Mr. Carr?

MR. CARR: May it please the Examiner, Yates Petroleum Corporation is before you today in Case 8323 because, as you advertised this case, we were called back to it and provided an opportunity to show you if in fact the subject well was capable of oil and gas production and whether or not it should be utilized as a salt water disposal well.

The testimony presented here today by Dr. Boneau about each of the zones in this well, we submit, shows you that this well can and will be capable of the production of oil and gas in commercial quantities.

Admittedly, further testing is required but no one in this room thinks that this well really cannot be returned in one of these zones or more than one of these zones to commercial production.

The question then turns of whether or not it should be used as a salt water disposal well.

We're here before you again because we believe the best interest of Blanco Engineering and the best interest of Yates Petroleum Corporation is served by attempting to resolve this matter before the Oil Conservation Division and we believe that if you give us a chance to go back in and return this well to production and produce it, you will one, solve the question before you, and you will protect the correlative rights of Yates Petroleum Corporation. You will prevent waste.

Certain questions here today, particularly from Mr. Stamets, underscore the fact that one of the real questions in this whole dispute is ownership of the wellbore.

As much as, perhaps, Mr. Kellahin would like you to believe it, it isn't a question of whose turn it is to operate and work with somebody's property rights. This isn't just a bald assertion. We don't just say we claim it just because it's convenient for the hearing. We have researched the matter and we can go into great length and great detail on what that shows, but I think it might be useful to you in evaluating this case to refer to a case called Gutierrez versus Davis. The cite is 618 F 2d 700. It's a simple case.

I'm going to read five sen-

tences to you from what is a relatively simple decision.

It involves a situation where a well was drilled. It's abandoned, the wellbore reverts to the landowner.

The first two sentences in the decision.

"The facts are simple. The Gutierrezes and the Davises entered into a standard form oil and gas lease in April, 1974, for which the Gutierrezes received a bonus of $7750. The lease contained no restrictions on the exploration and drilling except that a well could not be drilled within 200 feet of the house or barn."

The Court then goes on to note that the well was drilled by someone else. It has reverted to the landowner and the landowner then leased it to Davis and it states in announcing its decision, the lease gives Davis the right to use the land for the purpose of -- quote, for the purpose of exploring, mining, and operating for oil and other minerals.

"We agree with the trial Court that, without express language to the contrary, a fair reading of the contract gives Davis the right to drill through any part of the real estate including the plug and casing of the abandoned well when, as here, it was reasonable use within the stated purpose of the lease."

We have the right to that lease and if we are denied the right to use our property to test

these zones, we have no choice but to not talk about this around coffee, but to talk about some place where there is authority to protect our rights, and that is what we will have to do and we do not want to do that.

There's been all sorts of talk about, well, what happens if the zone is watered out? Could correlative rights be impaired? Well, perhaps they could be but we're talking about concepts that don't dovetail together here.

We're talking about ownership of a wellbore and we're talking about correlative rights in a zone. Perhaps Mr. White can get, under his agreement with the landowner, the right to drill another well and dispose of water in this zone, if in fact it is watered out, and do that without impairing anyone's correlative rights, but when we look at the definition of correlative rights, and correlative rights is an opportunity to produce without waste their just and fair share of the reserves under your property, and you remember it says "without waste", and if you deny us the right to use our property, you are going to put us in a position to produce these shallower formations, we won't be doing it in a fashion which in fact does constitute economic waste.

We submit that you don't have the jurisdiction to determine the ownership of the well and if you tell us this well must be converted to salt water disposal, you in fact have done that, and that is something,

we submit, you simply cannot do.

Mr. Kellahin talks about Blanco's correlative rights. Well, look at the definition. It talks about correlative rights under each property. Just because they have a problem, I don't think you have the right to come in and run over us and impair our correlative rights and force us into a position where if we're to produce the reserves under our tract, we're compelled to do so in a wasteful fashion.

They would like to use this wellbore. They'd like to use it on a tract where they don't own the minerals. They don't want to go to the other wells in the area where they could have done something and perhaps watered out a zone in which they in fact own the minerals that underlie that tract.

In opening today Mr. Kellahin said, I want to tell you how we got here. Yates went out and they tested the well and they just didn't make a commercial well.

How we got here was Blanco Engineering didn't give us notice in the first instance and we wouldn't be sitting here before you today in a position where they not only had without notice to us gone out and gotten into that wellbore, but they had been in that wellbore six to eight weeks before the order was even entered and we didn't even have any idea what they were doing, putting acid and water on the zone.

Yes, they have a problem, but we don't think that it's right to come and try and enter an order that impairs our correlative rights and cause waste simply to bail them out.

We didn't get what we sought in the last hearing. We told you at that time it would take six months. We sent you a list showing how long it would take to test each zone in that well, and we have been trying to do so as a prudent operator would do.

We submit there is only one reasonable thing you can do if you're to carry out your statutory duty, and if this Commission is to be the forum in which this matter is to be resolved, and that is to give Yates permission to go back as a prudent operator, use its wellbore and test the zones that can be returned to commercial production in that well.

MR. QUINTANA: Thank you, Mr. Carr.

Any further statements in this case?

MR. TAYLOR: Because, although we for the purposes of this will assume that we will not or do not have jurisdiction to determine ownership of the wellbore, I think we would like a short brief on the wellbore ownership because it seems to be being raised more than it was in the first hearing, and I think that, although I don't know that it's a big issue, I would also like a page or two

in that brief on notice. I still have a problem that Yates claims they didn't have notice and there seems to be a lot of facts that shows that they should have had notice.

And I know we have problems with our notice rules but still I think I'd like you all to address that and tell us just what kind of notice is not, given the factual situations here where at least I think there was constructive notice, whether that's going to suffice, I don't know.

I think I'd like to have you guys talk about it.

MR. CARR: I will need fifteen days. I have a brief that I have to get out at that time, if that's all right.

MR. KELLAHIN: I think that's an excessive period of time. We've been folling with this thing for six months. We've got a serious problem that needs to be resolved.

I think a period of five days is adequate.

Mr. Carr's staff is bigger than mine, anyway.

MR. CARR: Mr. Kellahin realizes he's already filed a brief in the case and I have to do that still.

I think if he can do it in five days that would be nice but we really, to do an adequate

job, if we're to respond to your questions, I think we'll need fifteen.

And we have not been waltzing around with that question that you've presented to us for more than, maybe, three minutes at this point in time.

MR. QUINTANA: We will give -- we would like to receive within fifteen days both a proposed order and the briefs that we requested and hopefully, by having these proposed orders we can get this order out as quick as possible for both peoples convenience.

Is there anything further in this case?

If not, Case 8323 will be taken under advisement.

(Hearing concluded.)

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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. 8323, heard by me on MARCH 27 1985.

Gilbert P. Quintana Examiner
Oil Conservation Division