STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
CASE 9838

EXAMINER HEARING

IN THE MATTER OF:

Application of Parker Drilling Company for the Institution of Gas Prorationing and the Adoption of Special Rules for the Pitchfork Ranch-Atoka Gas Pool, Lea County, New Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: MICHAEL E. STOGNER, EXAMINER

STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
November 29, 1989

ORIGINAL

A P P E A R A N C E S

FOR THE DIVISION:	ROBERT G. STOVALL Attorney at Law Legal Counsel to the Divison State Land Office Building Santa Fe, New Mexico
FOR THE APPLICANT:	No Appearance

I N D E X

HEARING EXAMINER: Continuing to the last page of the docket, I'll call Case Number 9838.

MR. STOVALL: Application of Parker Drilling Company for the institution of gas prorationing and the adoption of Special Rules for the Pitchfork Ranch-Atoka Gas Pool, Lea County, New Mexico.

Applicant requests this case be continued to December 13, 1989.

HEARING EXAMINER: Case Number 9838 will be so continued.

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Carla Diane Rodriguez Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL December 3, 1989.

Carla Diane Rodriguez
CARLA DIANE RODRIGUEZ
CSR No. 91

My commission expires: May 25, 1991

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9838, heard by me on 29 November 1989.

Michael E. Stogner, Examiner
Oil Conservation Division

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

Cases: 9712, 9713, 9828, 9838, 9799, 9812, 9813, 9788, 9827, 9829

CONTINUATIONS AND DISMISSALS FROM THE EXAMINER HEARING

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

December 13, 1989

A P P E A R A N C E S

FOR THE DIVISION: ROBERT G. STOVALL
Attorney at Law
Legal Counsel to the Divison
State Land Office Building
Santa Fe, New Mexico

HEARING EXAMINER: We'll call this hearing to order this morning for Docket No. 3589. We'll run through the continuances and dismissals first this morning.

Call Case 9712.

MR. STOVALL: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Tom L. Ingram, American Employers' Insurance Company, and other interested parties to appear to show cause why the Chappell "5" Well No. 1 in San Miguel County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

We knew if we postponed this case long enough that that well would somehow get plugged, and so the Division moves to dismiss it at this time.

HEARING EXAMINER: Case 9712 is hereby dismissed.

* * * * *

HEARING EXAMINER: Call Case 9713.

MR. STOVALL: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Tom L. Ingram, American Employers' Insurance Company, and all other interested parties to show cause why the Gihon "31" Well No. 1, San Miguel

County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program. Worked for two of them.

Move to dismiss this case as well.

HEARING OFFICER: Case 9713 is hereby dismissed.

* * * * *

HEARING EXAMINER: Call Case 9828.

MR. STOVALL: Application of Bill Fenn, Inc., for an amendment of Division Order No. R-8951 as amended, Eddy County, New Mexico.

Applicant requests this case be dismissed.

HEARING OFFICER: Case 9828 is hereby dismissed.

* * * * *

HEARING EXAMINER: Call Case 9838.

MR. STOVALL: Application of Parker Drilling Company for the institution of gas prorationing and the adoption of Special Rules for the Pitchfork Ranch-Atoka Gas Pool, Lea County, New Mexico.

Applicant requests this case be continued to December 27, 1989.

HEARING OFFICER: Case 9838 will hereby be continued to the December 27th docket.

* * * * *

HEARING EXAMINER: Call Case 9799.

MR. STOVALL: The application of Bannon Energy Incorporated for an unorthodox oil well location, Rio Arriba County, New Mexico.

Applicant requests this case be dismissed.

HEARING OFFICER: Case 9799 is hereby dismissed.

* * * * *

HEARING EXAMINER: Call Case 9812.

MR. STOVALL: Application of Meridian Oil, Inc., on behalf of El Paso Natural Gas Company, for an unorthodox coal gas well location, Rio Arriba County, New Mexico.

Applicant requests this case be continued to December 27, 1989.

HEARING OFFICER: Case 9812 is hereby continued to the December 27th docket.

* * * * *

HEARING EXAMINER: Call Case 9813.

MR. STOVALL: Application of Meridian Oil, Inc., on behalf of El Paso Natural Gas Company, for an unorthodox coal gas well location, Rio Arriba County, New Mexico.

Applicant requests this case be continued

to December 27.

HEARING OFFICER: Case 9813 is hereby continued to the December 27th docket.

* * * * *

HEARING EXAMINER: Call Case 9788.

MR. STOVALL: Application of Yates Petroleum Corporation for directional drilling and an unorthodox gas well location, Eddy County, New Mexico.

Applicant requests this case be dismissed.

HEARING OFFICER: Case 9788 is hereby dismissed.

* * * * *

HEARING EXAMINER: Call Case 9827.

MR. STOVALL: Application of Exxon Corporation for special casinghead gas allowable, Lea County, New Mexico.

The Applicant requests this case be continued to a hearing in February of 1990. Hearing date to be determined when the schedule is published.

HEARING EXAMINER: Case 9827 is hereby continued to the first hearing in February 1990.

* * * * *

HEARING EXAMINER: At this time we'll call Case 9829.

MR. STOVALL: Application of Roberts and

Hammack, Inc., for a nonstandard oil proration unit, Lea County, New Mexico.

Mr. Examiner, this case has been previously heard and is being readvertised to correct notice deficiencies.

HEARING EXAMINER: Are there any additional appearances at this time?

MR. STOVALL: We will take this case under advisement.

HEARING EXAMINER: There being no further appearances, Case 9829 will be taken under advisement at this time.

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Freda Simmons, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL February 18, 1989.

Freda Simmons

FREDA SIMMONS

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9838, heard by me on December 13 1989.

David R. Catanach, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
CASE 9838

EXAMINER HEARING

IN THE MATTER OF:

Application of Parker Drilling Company for Institution of Gas Prorationing and the Adoption of Special Rules for the Pitchfork Ranch-Atoka Gas Pool, Lea County, New Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: MICHAEL E. STOGNER, EXAMINER

STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
December 27, 1989

ORIGINAL

A P P E A R A N C E S

FOR THE DIVISION:	ROBERT G. STOVALL Attorney at Law Legal Counsel to the Divison State Land Office Building Santa Fe, New Mexico
FOR THE APPLICANT:	W. PERRY PEARCE, ESQ. Montgomery & Andrews, P.A. Post Office Box 2307 Santa Fe, N.M. 87504-2307
FOR ENRON OIL & GAS:	WILLIAM F. CARR, ESQ. Campbell & Black, P.A. Post Office Box 2208 Santa Fe, N.M. 87504-2208
FOR SAMEDAN OIL CORP:	CANDACE HAMANN CALLAHAN, ESQ. Kellahin, Kellahin & Aubrey Post Office Box 2265 Santa Fe, N. M. 87504-2265

I N D E X

E X H I B I T S

HEARING EXAMINER: I'll call next case, No. 9838.

MR. STOVALL: Application of Parker Drilling Company for the institution of gas proration and the adoption of special rules for the Pitchfork Ranch-Atoka Gas Pool, Lea County, New Mexico.

HEARING EXAMINER: Call for appearances.

MR. PEARCE: May it please the Examiner, I am W. Perry Pearce of the Santa Fe Law Firm of Montgomery & Andrews, appearing in this matter on behalf of Parker Drilling Company. I have one witness who needs to be sworn.

HEARING EXAMINER: Are there any other appearances?

MR. CARR: May it please the Examiner, my name is William F. Carr with the law firm Campbell & Black, P.A. of Santa Fe. I represent Enron Oil & Gas Company in opposition to the application. I have four witnesses.

HEARING EXAMINER: Are there any other appearances?

MS. CALLAHAN: May it please the Examiner, my name is Candace Callahan with the law firm of Kellahin, Kellahin and Aubrey of Santa Fe. We're here representing Samedan Oil Corporation in opposition to

the application.

MR. STOVALL: Do you have any witnesses?

MS. CALLAHAN: We have no witnesses.

HEARING EXAMINER: Are there any other appearances? If not, are there any opening remarks, gentlemen?

MR. STOVALL: Should we swear in the witnesses and get that out of the way?

HEARING EXAMINER: Yeah, let's get these witnesses sworn in at this time.

MR. STOVALL: Would the witnesses stand and raise your right hands, please.

(Thereupon, all witnesses were sworn.)

HEARING EXAMINER: Any need for opening remarks, gentleman?

MR. PEARCE: No.

MR. CARR: We'll waive opening.

HEARING EXAMINER: Mr. Pearce.

MR. PEARCE: Thank you, Mr. Examiner.

BRIAN AUSBURN

Called as a witness herein, after having been first duly sworn upon his oath, testified as follows:

EXAMINATION

BY MR. PEARCE:

Q. I would ask the witness, would you please

state your name and place of residence.

A. Brian Ausburn; last name is A U S B U R N. I work for J. R. Butler & Company, an oil and gas consulting firm in Houston.

Q. Mr. Ausburn, have you previously appeared before the New Mexico Oil Conservation Division or one of its examiners and had your credentials made a matter of record?

A. No, I have not.

Q. Sir, at this time I would ask you to briefly describe your educational background for the Examiner and those in attendance.

A. I graduated from the University of Oklahoma with a bachelor's and master's degree in geological engineering in 1961. I worked for Shell Oil Company for about 15 years in the Rocky Mountains and New Orleans and Texas, and I have been with J. R. Butler & Company since 1976.

Q. Could you describe for us, please, very generally, the responsibilities that you had during your time with Shell Oil in the Rocky Mountain Region?

A. I was involved in general petroleum engineering or exploitation work, they called at that point, surveillance of wells, field site surveillance, production surveillance and remedial work,

recompletion work, this type of thing.

Q. And since you joined J. R. Butler & Company, have you had the same sorts of responsibilities?

A. Well, we do--we provide technical services for people that may not have adequate technical staffs or maybe want a third party opinion or a second opinion on some of their properties.

Q. And when you say "technical services," what sorts of technical services are we talking about?

A. Field evaluations, field studies, property evaluations for companies that either want to buy or sell or borrow money.

Q. And what is your position with J. R. Butler & Company?

A. I'm the president.

Q. And on your staff, what sorts of technical expertise do you have?

A. We have geological personnel, we have people that specialize in formation evaluation, log analysis, we have reservoir engineers and some reservoir modeling people.

Q. Mr. Ausburn, are you familiar with the application that Parker Drilling Company has filed in this case?

A. Yes, I am.

MR. PEARCE: Mr. Examiner, at this time I would ask that Mr. Ausburn be recognized as an expert in the fields of petroleum geology and petroleum engineering.

HEARING EXAMINER: Are there any objections?

MR. CARR: Just a couple of questions.

EXAMINATION

BY MR. CARR:

Q. Mr. Ausburn, has your previous work involved work with the Permian Basin in New Mexico?

A. Yes.

Q. And in that regard, have you been called upon to give opinions, render opinions concerning prorationing in New Mexico?

A. No.

Q. When were you employed by Parker?

A. I think early November.

MR. CARR: That's all I have.

HEARING EXAMINER: There are no objections?

MR. CARR: No objections.

HEARING EXAMINER: Mr. Ausburn is so qualified.

FURTHER EXAMINATION

BY MR. PEARCE:

Q. Mr. Ausburn, at this time I would ask you, please, to turn to what we have marked as Parker Exhibit No. 1 to this proceeding.

I would ask you to describe, please, for the Examiner and those in attendance, the information reflected on that exhibit.

A. This is a structure map on the top of the Atoka Sand reservoir. Shown on this map are the nine productive wells in the reservoir. You can see it's a south dipping structure and the reservoir is limited on almost several sides except parts of the south by lack of porosity.

There's a gas/water contact inferred from data down in Sections 11 and 10, I believe, and there's about 350 feet of relief. Also shown on the outline, on your exhibit, is the pool outline, the designated pool outline.

Q. And I notice there are some colored well spots. What are those spots?

A. Those are the nine producing wells from the Atoka Sand reservoir.

Q. All right, sir. Anything further on that exhibit?

A. I don't believe so.

Q. Let's look now, keep that exhibit in front of you, if you would, and look at what we've marked as Exhibit No. 2 to this producing. Would you please describe that exhibit?

A. This is a tabulation that lists the wells in chronological order of production.

Q. With Exhibit No. 1 in front of us and Exhibit No. 2 in front of us, could you locate the wells in the Pitchfork Ranch-Atoka Pool and in the order in which they were completed?

A. Okay. The first well completed in the pool was completed in September of '83. That's the Pitchfork 34-1, which is in the southwest quarter of Section 34.

Q. All right, sir.

A. The second well completed is the Cox, Vaca Ridge 4-2. It started production in February of '86 and it's located in, I guess it is, the northeast quarter of Section 4.

The third well completed in the reservoir started production in October of '86, is the Diamond 5-3, which is in the north half of Section 5.

Q. And that is the well spot with the circle around it and the 3 to the right?

A. Yes.

Q. The next well completed?

A. The fourth well completed was the Madera 32 State No. 3. It started production in January of '87, and it's in the south half of Section 32. It's directly north of the Diamond 5-3.

Q. All right, sir.

A. The fifth well completed is the Madera 33-3. It's directly east of the fourth well completed. It started production in April of '87.

The sixth well completed started production in May of '87. It's the Madera 28-2, and it's in the bottom half--south half of Section 28.

The seventh well completed is in Section 3, 25 South. It's in the north half of Section 3. It's the Page 3-2, and it started production in July of '87.

The eighth well completed is the Madera 33-4. It's in the east half of Section 33, almost due west of the first well completed. The 33-4 was completed in November of '87.

The most recent completion in the reservoir is the Meridian, Pitchfork 4-2. It's in the southwest quarter of Section 4. It started production in August of '88.

Q. All right, sir. With that background information behind us, I would ask you now to please turn to what we've marked as Exhibit No. 3 to this proceeding. All right, Mr. Ausburn, would you please briefly describe this exhibit for us?

A. Exhibit 3 is a net pay, net gas pay isopach map for the Atoka Sand. The wells were, I think we had 17 well points within the productive acreage, and the net pay for each of these well points was determined and posted on this map, and they are contoured.

And the reservoir, as I said earlier, seems to be limited on almost all sides by lack of porous sand. There is a water contact inferred on the southeast corner of the reservoir in Section 11, and also an inferred water contact in Section 8.

Q. All right, sir. Anything else to highlight on that exhibit?

A. I don't believe so. It's a fairly standard presentation of that isopach.

Q. Let's turn now to Exhibit No. 4. And would you describe the information reflected on that exhibit, please?

A. Exhibit 4, I believe, is a list of--I think there are 17 wells on here. It's a list of the

petrophysical or log evaluations for the wells for which we had information, and it has the net pay, which was noted as "H," it has the formation porosity as is a fraction of bulk volume, and then water saturation which is a fraction of pore volume.

Q. Reflecting back on Exhibit No. 3, the first column headed "H" is the number reflected on the isopach, is that correct, for each of these wells?

A. Yes, sir.

Q. Go ahead, please.

A. Okay. That's what Exhibit 4 is, a summary of our petrophysical evaluations.

Q. Let's go through a sample well and explain each of those columns and the source of the information. The first well listed is the Half 5-1. It shows a thickness of 2, and that is 2 feet, is that correct?

A. 2 feet, yes, that's correct.

Q. All right, and then fee is a fraction of bulk volume. Could you explain the source of that, please?

A. The porosity logs available on the wells.

Q. And the final column?

A. The final column is a computation from the resistivity and the porosity information of water

saturation.

Q. Okay. At the bottom the average fee is 13.9 percent?

A. That's correct.

Q. And the average water saturation?

A. Is 28.6. That's a thickness weighted porosity and a fee-H weighted water saturation. Those numbers were not actually used in our computations, but that's the result of the averaging off of that table.

Q. All right, sir. Now let's turn, please, to Exhibit No. 5 to this proceeding. Could you describe this exhibit for us, please?

A. This is a gas-filled pore volume map or what we call a fee hS of G, and it comes from Exhibit 4. It's the multiplication of the thickness times the porosity times the gas saturation, the gas saturation being one minus the SW column on Exhibit 4.

Also shown on this is the outline of the proration units. There are nine, four laid-down and five stand-up units. And the multiplication of the gas saturation, times the porosity, times the H, will give us the fee hS of G numbers that are posted on the map, and then these, in turn, were contoured.

Q. Are there other items to highlight for us

on this exhibit?

A. I don't think so.

Q. All right, sir. Turn with me now, please, to what we've marked as Exhibit No. 6. Could you describe this exhibit for us, please?

A. Number 6 is a distribution of productive acreage, by our interpretation. I might point out, at the bottom of the tabulation, productive acreage total reservoir is slightly over 5,000 acres, and that's the area encompassed by the zero line on Exhibit 5.

Q. All right, sir. Let's take as an example, please, the first well reflected on that exhibit, which is the Enron, Pitchfork 34-1 well. By your interpretation, the area inside the zero isopach line is 258.95 acres, is that correct?

A. That's correct.

Q. And then the next column, could you explain that for us, please?

A. Well, that is a--if the sum of the first numerical column is about 2,767 acres. Then each proration unit's share of the developed acreage, then, is shown in column 2. So 259 acres is about 9.4 percent of 2,767.

Q. And then the final column?

A. The final column then is 259 divided by

5,078. That's the percent of total productive acreage.

Q. That would be approximately 559 over 5,077?

A. It would be 259 over 5,077, yes.

Q. All right, sir. Let's look now, please, at Exhibit No. 7. Would you please explain the information reflected on this exhibit?

A. This is a summary of the volumetric analysis that comes quickly from Exhibit 5. The first column is original gas in place in million cubic feet, that's standard cubic feet, and the hydrocarbon or the gas-filled pore volume under each of the proration units was planimetered and the volumes computed for acre-feet of gas, and then with the appropriate gas expansion correction was converted into equivalent original gas in place at standard conditions.

And, for example, the Enron 34-1 would have, by our computations, about 2.4 bcf under its proration; the Cox 4-2 would have 3.8 and so forth, for a total of 24.1 bcf under the developed acreage. And then the total for the reservoir is 34 bcf.

And then we have the same type of percentage distribution as we had on the acreage. The second column would indicate that the Enron 34-1 would have about 10 percent of the total developed acreage

and 7 percent of the total gas in place for the reservoir.

Q. All right, sir. Anything else you would like to highlight on this exhibit?

A. No.

Q. All right, sir. Let's turn, please, to what we've marked as Exhibit 8, and there are 2 pages to this exhibit. The first page is a tabular set of data. You might look at both of these exhibits at the same time, if that's easier, and describe those for us, please.

A. Page 1 of Exhibit 8 is a listing of 40 pressure points available for the reservoir over the time period from the 1st of October in 1983, essentially, to November 1 of '89. And the code will indicate which of the points are measured by down-hole pressure bombs, and then by inference, the ones that are not so indicated, are computed from shut-in tubing pressures.

Also noted is the first point for each well. Those are the crosses. The asterisks show the measured points.

Q. For instance, the first entry shown on this column shows both an asterisk and a cross. That indicates that for the Pitchfork 34-1 well that was

the first pressure taken, and it was a measured pressure since both symbols occur, is that correct?

A. That's true.

Q. Keeping that in mind, let's look at the second page of Exhibit 8, please. What have you done?

A. This is a conventional presentation of bottom-hole pressure divided by the gas deviation factor plotted against cumulative gas production.

The red triangles are the measured points, and the uncolored boxes are the computed points from shut-in tubing pressure. There's a line extrapolated that honors the maximum pressure that we believe is possible for the reservoir and honors the measured points. Extrapolation of that line would come to about 42.2 bcf in place.

Maybe I should have--perhaps everybody in the room knows this, but when P over Z, bottom-hole pressure over Z goes to zero, by definition, this is the gas in place. This is a way to determine gas in place. So at zero pressure, the apparent gas in place from the extrapolation of that line would be slightly over 42 bcf.

However, we have 34 bcf from volumetric control and we have a reservoir model or run that indicates 35-1/2. We believe 42.2 is too much, and

this break in the line is not an uncommon pattern for abnormally pressured gas reservoirs.

Q. And, in your opinion, on discovery, the Pitchfork Ranch Atoka was an abnormally pressured reservoir?

A. Yes, it is.

Q. All right. Let's look now, please, at Exhibit No. 9. Please describe the information reflected on this exhibit.

A. Exhibit 9 is a tabulation of cumulative production, both gas and condensate, as of July 1, 1989. And we can see that the total production from the reservoir, as of the 1st of July of this year, was over 17 bcf, and 47 percent of that was produced by the Pitchfork 34-1. Each individual well's gas production is shown and its percentage of the total production to date.

Q. All right, sir. I would ask you, while you still have Exhibit 9 in front of you, to please refer back to Exhibit No. 7. I want to make sure I understand. Let's look specifically at the entries for the Enron, Pitchfork 34-1 well.

If I understand these two exhibits, you calculated the original gas in place for that well at approximately 2.4 bcf, is that correct?

A. Yes, sir.

Q. And the cumulative recovery to July 1 of 1989 was already 8 bcf, is that correct?

A. Yes, sir.

Q. And that well, I believe you testified, by your calculation, had recovered 47 percent of the gas produced by this reservoir?

A. 47 percent of the gas produced to date.

Q. You have condensate columns?

A. It's recovered about 55 percent of the condensate to date.

Q. All right, sir, let's look please, keeping that in mind, at what we've marked as Exhibit No. 10. Could you describe this display for us, please?

A. This is a graph that shows the participation of the 34-1, both as a percentage of drainage points in the reservoir and its production from the reservoir. The black line is the percentage of drainage points, it's share of the percentage of drainage points. The red line is its share of the percentage of the production.

For example, the 34-1 started production in September of '83 and the reservoir was not competitive until the first of '86. So, up until that point it was 100 percent of the drainage points and 100 percent

of the production.

In the first of '86, when the Cox well was drilled and completed, its share became 50 percent, then, by definition, one out of two, 50 percent of the drainage points in the reservoir and had 90 percent of the production.

And the pattern follows on down, then. As each of the successive wells were drilled, we're down to the end of '88 where we have nine wells, and that one-ninth is 11.1 percent, more or less, and that well has 11 percent of the drainage points in the reservoir and it's still producing a little over 30 percent of the gas from the reservoir.

Q. All right, sir. Let's look, please, at Exhibit No. 11. Could you describe that exhibit for us, please?

A. This is our estimates as of July 1, 1989, of reserves from the reservoir. These reserve estimates were generated from a reservoir model, and Case A is conditions as they are now, no proration. And it would predict a reserve of 8.1 bcf for all wells in the reservoir.

Q. And the columns on the exhibit, beginning with the percent of total gas column?

A. Then that's each well's share of the

predicted remaining reserves. The 34-1 would have 30 percent, and the Cox would have 3 percent, and so forth.

Q. All right, sir. Now let's look at Exhibit No. 12. What's reflected on this exhibit, please?

A. Exhibit 12 is a tabulation of estimated ultimate recovery under the Case A assumption, with no proration. And this is their prediction of ultimate recovery from each of the wells, and then each well's proportionate share in that predicted ultimate recovery. The ultimate recovery is about 25.17 bcf.

Q. And if I understand what we've discussed so far, if we look at Exhibit No. 9 and add to each of the well entries the information reflected on Exhibit 11, that's the total estimated ultimate recovery reflected on Exhibit 12, is that right?

A. That's true. Exhibit 12 is a summation of 9 and 11.

Q. All right, sir. Let's look now, please, at Exhibit No. 13. This exhibit reflects a Case B. Could you describe what alterations were made between Case A and Case B?

A. Case B assumes that the wells are prorated on a surface acreage allocation, starting January 1 of '90, and it can be compared, then, to--yes, Exhibit

11. 13 and 11 are comparable exhibits. Case A is with no proration, Case B is with proration, that's 11 and 13 respectively.

Q. Let's look at the pool total columns on those exhibits, if you would, please, 11 and 13 comparison. What does the institution of prorationing effective 1/1/90 accomplish, in your opinion?

A. The difference between the recovery--total recovery is about 354 million cubic feet by instituting proration. That's the difference between 8.488 and 8.134 bcf.

Q. And the impact on the various wells' percentage recovery of remaining reserve, what's the impact?

A. Well, it redistributes things, obviously. The 34-1, instead of having 30 percent of the reserves from July 1, 1989, forward, would have 20 percent of the reserves. The Cox 4-2, instead of having 3 percent without proration would have 5 percent with proration.

The Diamond is slightly reduced under proration. The rest of them mostly go up, I believe; the exception, perhaps, is the Meridian 4-2, the last well. Its share of reserves goes down from 14.4 to 12.6.

Q. All right. Let's look, please, at Exhibit No. 14. Could you describe this exhibit for us, please?

A. Exhibit 14 is a summation of 9 and 13, and this is estimated ultimate recovery from the reservoir, assuming proration effective 1/1/90.

Q. Comparing this exhibit to Exhibit No. 12, once again it reflects approximately 354 million additional cubic feet of gas, is that correct?

A. Yes, it does.

Q. And, once again, you have taken the cumulative production and the estimated remaining recoverable reserves and recalculated the percentage of each well's recovery, is that correct?

A. That's correct.

Q. All right, sir. Let's look please now at Exhibit No. 15. Could you describe this exhibit for us, please?

A. Exhibit 15 is a rate-time presentation in MCF per day versus time. The black line is a historical production from the reservoir from September of '83 until July 1 of '89. The blue line is the forecasted production schedule for the no proration case. The red line is a forecasted production schedule for the proration case effective

1/1/90.

Q. Once again, this reflects additional recovery reserves under Case B, is that correct?

A. Yes. The difference between those curves is 354 million.

Q. Let's look please at what we've marked as Exhibit No. 16. Exhibit No. 16 is a summary of data previously presented, is that correct?

A. Yes, sir. The first column, of course, is the well identification, and the second column is the percent of developed acreage. That's one-ninth all the way through, 11.1 percent.

The second numerical column is the percent of original gas in place for the developed acreage. The next column is Case A. That last column is Exhibit 7, in essence. The next column is Exhibit 12. That's case A. That's the EUR. It's each well's percentage of ultimate recovery without proration. And then the last column is our Case B with proration, each well's estimated ultimate recovery, percentage of the reservoir total with proration.

Q. Mr. Ausburn, I would ask you, after your study of the Pitchfork Ranch-Atoka Gas Pool, do you believe that the institution of surface acreage based proration for this pool would result in the recovery

of additional reserves and, therefore, prevent waste of natural resources?

A. Yes, I do.

Q. Looking particularly at the summary set forth on Exhibit 16, do you believe that the institution of surface acreage based proration in the Pitchfork Ranch-Atoka Pool would operate to more effectively protect the correlative rights of various interest owners and various wells within that pool?

A. It would help protect them. It would mitigate the correlative right problem.

Q. It comes close?

A. It comes close, sir.

Q. Do you have anything further at this time, Mr. Ausburn?

A. No, sir.

MR. PEARCE: At this time, Mr. Examiner, I would like to submit an Affidavit of Notice of this proceeding that I have completed, which reflects mailing of a copy of the application and notice of hearing to certain parties, and I would move the admission of Exhibits 1 through 17 to this proceeding.

HEARING EXAMINER: Are there any objections?

MR. CARR: No objections.

HEARING EXAMINER: Exhibits 1 through 17 will be admitted into evidence.

MR. PEARCE: I have nothing further of the witness at this time, Mr. Examiner.

HEARING EXAMINER: Thank you, Mr. Pearce. Mr. Carr, your witness.

MR. CARR: Thank you.

EXAMINATION

BY MR. CARR:

Q. Mr. Ausburn, if I could direct your attention, we'll just start with Exhibit 1, okay? Are you familiar with the rules governing the development of this pool as they relate to spacing and well locations?

A. I know that there are regulations about distances from blinds, perhaps? This is what you mean?

Q. Yes. Do you know whether or not any of the wells are at unorthodox locations as they apply to those rules?

A. Not to my knowledge.

Q. So they would all be at standard locations?

A. As far as I would know, yes, sir.

Q. How much acreage is supposed to be

dedicated to each well in this pool, do you know?

A. I don't know. They're drilling 320 acres. I presume 320 acres.

Q. Does each well in the reservoir have 320 acres dedicated to it?

A. As far as I know.

Q. If we go to Exhibit No. 2, if I can find it, this sets out the chronological development of wells completed in the pool, isn't that correct?

A. Yes, sir.

Q. There was other drilling in the area that is not reflected on this exhibit, is that not true?

A. Wells for other reservoirs?

Q. Or for the Atoka in this area?

A. Perhaps, yes.

Q. Have you reviewed information on the well located in the east half of Section 34?

A. Yes.

Q. That, in fact, was projected as an Atoka well, was it not?

A. I don't know what it was proposed for. I know the Morrow was an objective, also. I would presume that it would be.

Q. Do you know who drilled that well?

A. Enron, I believe.

Q. Do you know when it was drilled?
A. In April of '84, about.
Q. So there was a well that was drilled by Enron between the first well shown on this list and the second one, but it wasn't completed in the reservoir?
A. That's true.
Q. It's not your intention to indicate that this shows all the efforts to develop the pool, just those that were successful?
A. That's true.
Q. If we look at your Exhibit No. 3, this is your isopach. This is a fairly standard presentation, I believe. Is it fair to say that the pool limits are fairly well-defined in this area?
A. I think they're fairly well-defined. Certainly I consider this good geologic control. We have so many penetrations. There are still areas of some uncertainty perhaps to the west; but within the confines of the developed acreage it's well-defined.
Q. All right. If we were to go to Exhibits 9 and 7, could you tell me what the first figure after the entry for the Enron Pitchfork 34 Fed. Com. No. 1 well is, I guess that's 2,383.4 thousand? What does that number indicate?

A. That's the gas in place.
Q. At what time?
A. Originally. Original gas in place. OGIP, original gas in place, excuse me.
Q. If we take that and compare it to Exhibit No. 9, what you're showing here with these two exhibits is that to date the 34 Com. No. 1 has been able to produce more than the original gas in place?
A. Yes, sir.
Q. That's the intent of those two exhibits?
A. That's one thing that you can draw from this, yes.
Q. What are the other things you're trying to show with this? Your real concern is the 34 No. 1, is it not?
A. That's true.
Q. The other wells don't pose a problem?
A. 34-1 is the major problem.
Q. Are there other wells here that would, in your opinion, look like major problems in this reservoir?
A. No, sir.
Q. The Enron, Diamond No. 5 doesn't look like another problem well to you?
A. It's the closest to getting--let me see,

that has 11.1. It has 14.5 of the total. It's slightly better than its share, yes.

Q. And this would be based on the original gas in place?

A. On the original gas in place.

Q. You're not suggesting that when we prorate we take into account what was originally there, are you? You're only going from this time forward with your proposal?

A. We're going from this time forward.

Q. From that prospective, would the Diamond Fed. No. 5 be a problem that needs to be addressed with a prorationing application?

A. I think all the wells would share, then, as their surface acreage would indicate.

Q. If we look at Exhibits 11 and 13, if I understand these, Exhibit No. 11 shows the estimated reserves as of July 1 of this year with no prorationing, the Exhibit No. 13 shows the reserves if prorationing is in fact in place or implemented, is that correct, on 1/1/90?

A. Yes.

Q. Now, when you say "estimated reserves," do you mean what is under the tract or what will be recovered?

A. What will be recovered from that well bore.
Q. Did you estimate what would, in fact, be under those tracts today?
A. No.
Q. So you don't know what would be there as of 1/1/90, I guess?
A. We could compute that, I presume, but, no, we do not have that.
Q. If you look at Exhibit No. 14, this shows the estimated ultimate recovery if in fact prorationing is implemented, isn't that right?
A. Yes.
Q. And this shows, in fact, a redistribution of production from the 34 No. 1 to other wells in the pool?
A. Yes, sir, it does.
Q. And isn't the real concern that you're presenting here today the fact that there appears to be drainage to the 34 No. 1 from offsetting wells, and prorationing would redistribute some of that production?
A. Prorationing would redistribute some of that production.
Q. That is now going to the 34-1?
A. Yes.

Q. And the problem there is it is just draining more than the acreage assigned to it, in your opinion?

A. Yes.

Q. Now, you indicated that in the past you haven't been called on to apply engineering factors to the New Mexico prorationing system, is that correct?

A. That's correct.

Q. In preparing for the hearing today, did you review the Acts and the rules and regulations governing prorationing in this state?

A. I read through some of the literature available. I do not pretend to be an absolute authority on that.

Q. Are you aware of the factors that have traditionally been considered in implementing prorationing in New Mexico?

A. I know that there are two major elements, it appears, correlative rights and additional recovery or the avoidance of waste.

Q. Are you aware of the current takes from this reservoir by the purchasers of gas from this reservoir?

A. No.

Q. You don't have any information on the

volumes that are being taken from the Meridian well as compared to the other wells?

A. We have the production. I don't know who the production is going to, but we do have the production.

Q. Have you seen any evidence in this review of the production that would suggest that there has been any curtailment of production due to absence of market?

A. I think the wells were shut-in because of price, but perhaps not because of absence of market.

Q. Do you have an opinion as to whether or not there is a market for all the gas that can be produced from this reservoir, or do you know?

A. I do not know.

Q. Now, as you have reviewed this data and made your study of the reservoir, have you encountered anything which you would consider improper operating practices on the part of any operator on the reservoir?

A. No.

Q. Is there anything you can point to that would suggest that Enron hasn't operated the wells in the reservoir as a prudent operator?

A. No.

Q. Are the wells being produced basically at capacity, or do you know that?

A. I believe they are essentially at capacity.

Q. Are you aware of whether or not compression has been added to the wells in the reservoir?

A. It's my impression that it has not.

Q. Has not?

A. Has not.

Q. Are you aware of any well in the pool that, in fact, has had its ability to produce restricted in any fashion by the operator of the well?

A. I have some questions about the Cox, Vaca Ridge well. I'm not sure what's going on there. I don't know specifically of any problems.

Q. Are you aware of any efforts or anything that has been done to restrict the producing rate of the 34-1 well?

A. No.

Q. Were you asked to look into any other potential remedies for this perceived problem, other than prorationing?

A. No.

Q. When you look at the wells in the reservoir, clearly the 34-1 is the best well?

A. Yes.

Q. And I think during your direct examination you talked about, if I can find it--an abnormally pressured reservoir. What did you mean by that?

A. Reservoir pressure that would be higher than the normal hydrostatic gradiant.

Q. Would that be confined to any portion of the reservoir or would it be throughout the reservoir that you would find this pressure anomaly?

A. The whole reservoir was initially abnormally pressured.

Q. When you look at the 34 No. 1, from its ability to produce, is the best well in the reservoir clearly?

A. Yes, sir.

Q. What, from a reservoir point of view, what do you think causes that as opposed to, say, the offsetting wells in Section 33?

A. Its permeability.

Q. And it continues to have the better permeability, does it not?

A. Yes.

Q. Even if we prorate it, it will continue to have a greater permeability and the corresponding higher deliverability because of that, will it not?

A. Yes.

Q. Now, in recommending prorationing, have you run out or estimated exactly the impact of prorationing on every well? I gather you have from this?

A. Yes.

Q. What sort of data did you use in making this comparison, or in making this estimation? Did you use actual production information?

A. Yes.

Q. Did you have actual pressure information?

A. Yes.

Q. In making your calculation of what would occur after prorationing was implemented, did you redistribute the pressure along with working with the production information?

A. We curtailed the production or normalized the production so that each well was limited to one-ninth of the production from the reservoir.

Q. When you do that, there would be pressure redistribution in the reservoir?

A. There is, yes.

Q. Did you take that into account in your calculations?

A. Yes.

Q. Do you have those calculations with you?

A. Not in exhibit form. I do have some information available.

Q. Could we see those calculations?

A. Okay. I have--okay.

HEARING EXAMINER: Do you want to go off the record until he gets that?

MR. CARR: Yes.

(Thereupon, there was a discussion off the record.)

HEARING EXAMINER: Let's go back on the record. Mr. Carr?

Q. [BY MR. CARR] Mr. Ausburn, do you have some information there that would show how you actually calculated these reserves?

A. I have our model output runs that I don't have copies of, but you're welcome to look through them. There might be one way I could maybe summarize it for you. This is not part of the calculation as the end results, but what this is, it's the pressures, grid-block pressures at the end of whenever the eighth well goes off of production.

Q. All right. Let's see what you have. Tell us what you have here.

A. Okay. These are model runs from those two. It's a PC model.

HEARING EXAMINER: Hold it. Let's go back to our seats.

MR. STOVALL: Mr. Carr, we have a concern here, and Mr. Pearce. Is this going to become an exhibit to which we're going to refer?

MR. CARR: I think we will move that it be marked and admitted as Exhibits 18 and 19. There are two pages. We think it out to be in the record when they're putting these totals out. We think we should be able to look at calculations and data that was used as input getting to that end. For that reason I don't have much in the way of cross-examination. I would just like to see what they have done to deal with pressure redistribution in the reservoir, and would like to have them put in whatever information they've developed and are relying on in the calculations that they've used to project that.

MR. STOVALL: A little bit of concern with how this is going to get in. I'll let you proceed. I'm going to recommend the Examiner let you proceed at the moment, but we're going to watch the process so that we don't end up building an exhibit and then--

MR. CARR: Just so you know, they've given us exhibits that have conclusions in it. To cross-examine them, we need to look at the

calculations or the approach that went into this. We would move to strike their exhibits if we can't look at the supporting data. That's all we're asking for is just a chance to see how they reached these conclusions, instead of just accepting them in the dark.

MR. STOVALL: I have no problem with that concept. It's making them in such a way that the record works when you do so.

MR. CARR: Well, and I might even shorten it.

Q. [BY MR. CARR] Mr. Ausburn, the two sheets you've handed to the Examiner, are these the results of your modeling?

A. Those are part of the output.

Q. What do these show you?

A. They show the grid-block pressures at a point in time.

Q. When we say "at a point in time," what point in time are we talking about?

A. There will be a different point in time for each one.

Q. For each of the points on these exhibits?

A. No, for each of the exhibits.

Q. Let's look at what is called Case A, and I

would ask you, what point in time does that reflect?

HEARING EXAMINER: We're still getting into a strange situation. I'll tell you what. Are there any objections to making these an exhibit, Mr. Pearce? Why don't we just shut down right now and make copies of these so I can follow them, Mr. Carr can follow them and you may follow them.

MR. PEARCE: That would be fine.

HEARING EXAMINER: Let's go off the record again for as long as it takes to make copies.

(Thereupon, a recess was taken.)

HEARING EXAMINER: This hearing will come to order. Mr. Carr?

MR. PEARCE: May I, Bill?

MR. CARR: You bet.

MR. PEARCE: Mr. Examiner, if I may just for the record, I would like to introduce what we've marked and distributed copies of Parker Exhibits 18, 19 and 20 to this proceeding.

Exhibit No. 18 is labeled Case A in the upper right-hand corner in handwriting. Exhibit 19 is labeled Case B in the upper right-hand corner, and Exhibit No. 20 is a graph that says Field Total, Pitchfork Ranch (Atoka) Field/Lea County, New Mexico, simply by way of introduction, Mr. Examiner. I

apologize, Mr. Carr.

MR. CARR: We have no objection to the admission of these exhibits.

HEARING EXAMINER: Exhibits 18, 19 and 20 will be admitted into evidence at this time.

Mr. Carr?

Q. [BY MR. CARR] Mr. Ausburn, could you tell me what Exhibit 18 is?

A. 18 is the pressures predicted in the reservoir at 4,180 days after September 1983.

Q. And September 1983 is the day that the 34-1 initially produced?

A. That's the initial production from the reservoir.

Q. What is 4,180 days, approximately? Have we gotten there yet?

A. No, I don't think so.

MR. HELMS: 11 and a half years.

A. Thank you. Okay. Yes, 11 and a half years.

Q. So that would be 1995 sometime, then. Why is that date significant?

A. That is the date when the Penn ultimate well goes off production.

Q. This is the date of the last production

from the reservoir?

A. No, the date that the next to the last well goes off production.

Q. Why did you select that?

A. Because, from that point forward, this is whatever can be recovered from the reservoir at this point has to be recovered, by definition, from the 34-1.

Q. What is the date for Exhibit No. B? And I assume this is the same sort of information at another date?

A. Yes. This is in a Case A, with no proration. And Case B is with proration.

Q. These are at the same date?

A. No, because of the proration the date is different. This is at 4,899 days, which is 13.42 years from 1983.667, the year 1997.08.

Q. So we have basically a longer producing life without prorationing?

A. Yes, sir.

Q. What we're looking at, we're looking at the existing--is this a bottom-hole pressure figure?

A. These are reservoir pressures.

Q. These figures, these numbers, are what?

A. These are reservoir pressures.

Q. So what we have here are the pressures--are these the figures that--is this output information from your modeling study?

A. This is output.

Q. And this tells you with or without prorationing how much pressure would be left in each of these wells at that time?

A. This is true. At the point of these two figures it would be on the west side of the reservoir particularly. We have gas trapped at a higher pressure in the Case A, no proration scenario. Therefore, more gas.

Q. Now, if we look at the figures for the 34-1, without prorationing at the time the 34-1 is the only well left producing in the reservoir, without prorationing, its reservoir pressure would be 1884, is that right? There's a 1900 above it.

A. No, I'm sorry. Without proration?

Q. Yes.

A. That would be Case A, that's Exhibit 18?

Q. Case without proration is Case A?

A. Yes.

Q. Then I have those reversed; so the pressure would be 1788, is that right?

A. Yes.

Q. With prorationing, at the time the next to the last well goes off, it's 1884?

A. Yes, sir.

Q. Now, my question really is, this is the output information. What do you put into your model study to get to this point?

A. The porosity and saturation data contained on Exhibit 4, I think.

Q. Do you do that absent current pressure information?

A. No. You code the reservoir up and describe it in its initial conditions and then match the performance of the reservoir with your model calculations.

Q. How many times did you have to run this to get a match?

A. I don't know. Several, I'm sure.

Q. More than several? More than three?

A. More than three, I imagine.

Q. Is there any particular information--

A. The major thing to be changed is permeability.

Q. When you change permeability, do you change it by each of the grids or each of the squares?

A. Yes.

Q. What permeability changes did you make?
A. This took many days to do. I couldn't begin to describe. I have a permeability map from the final match.
Q. What we're getting here is just the result of your modeling, not the input factors?
A. Yes. And the input factors would be the porosity and water saturation and thicknesses.
Q. And you used various ones of those until you got a match?
A. The major changes were in the permeability.
Q. You changed the permeability until you actually got the match?
A. Yes. Maybe that would be a time to talk about Exhibit 20.
Q. All right. Let's look at Exhibit 20. What does Exhibit 20 show you?
A. Simply put, Exhibit 20, then, is a rate-time presentation of the actual reservoir production to our model, and this is our final run from which the projections were made.
Q. This shows actually that you were able to reach a match?
A. Yes.
Q. Do you know what permeability factors you

were assigning to the 34-1 in making this match?

A. My guess is about nine millidarcies.

Q. Do you have actual information that establishes that nine millidarcies is the permeability for that well?

A. That's the permeability that matches this performance, yes.

Q. Is that the permeability from the data on the well itself? Does it match that information?

A. We have no actual permeability data from the well, as I recall.

Q. So you're just estimating what that would be?

A. The initial permeabilities were estimated from the open-flow tests, a regression analysis of the open-flow test, and from this we were able to get a starting permeability.

Q. If you had a permeability a little bit high on the 34-1 and a little bit low on the 33-4, you might also get a similar match, isn't that true?

A. No, no.

Q. It wouldn't work that way?

A. It wouldn't work that way.

Q. How accurate is your model? Do you have a percent of error that you factor into this?

A. It has about four percent. It all depends how you describe the error. The incremental error per time step is very small. The cumulative error over some almost 20 years, 25 years, is about four, five percent.

Q. So we could have a four or five percent error and that would account for the differences in the--I guess they're the reserves that are shown on the Case A, which is your Exhibit 11, no prorationing? You have a total, I guess it's remaining reserves, of 8,134.160?

A. That sounds right, yes, sir.

Q. And if we go with your Case B with prorationing, you come up with a reserve figure of 8,488.864. So, is that just an indication of the range of error in this modeling?

A. No, sir, I believe it's a real shift.

Q. Go on.

A. Because the model, we're looking for a qualitative shift under different situations. It's the same model and the same data, just different operating conditions.

Q. And you're talking not about reserves in place, but recoverable reserves?

A. Recoverable reserves. And that difference,

I think, is about four and a half percent.

Q. And when you take this, there is a difference of approximately 355 million, and when you compare that to, if I understood your 34 approximately bcf in place, you get just a one-percent variation in there, isn't that right?

A. I think the ultimate recovery predictions differ by 1.4 percent.

Q. All right. When I talk about ultimate recovery, there's a variation in the ultimate recovery figures of 1.4 percent and that is with prorationing and without prorationing?

A. That's right, and with a variation in the reserves of 4.4 percent.

Q. Okay. And with 4.4 percent on the reserves?

A. On the reserves.

Q. Now, if we look at Exhibit 16?

A. Okay.

Q. This is entitled, "Atoka Reservoir Pitchfork Ranch Field Summary, Percent of Developed Acreage," and you have given 11.11 percent to each of the nine wells in the unit, is that right?

A. Yes, sir.

Q. I understood you to say that you had

redistributed the reserves in making your initial model to put one-ninth in each of the wells. Was that incorrect?

A. No, I did not do that.

Q. What is the purpose of averaging and giving one-ninth of the developed acreage to each of these wells?

A. This is just the percent of developed acreage.

Q. They all are 320 acres and developed?

A. Yes, they're all 320 acres. It's not all productive in every instance, by our interpretation, but service acres, they're all equal.

Q. When we take a look at how you went about projecting the impact of prorationing on the pool, didn't you initially assign one-ninth of the reserves to each of the wells? Isn't that what you said?

A. No.

Q. You broke something up by one-ninth. Was it just the division of the surface acreage?

A. That's all.

Q. Nothing else?

A. The gas deliverability, you divided that one-ninth by each well, in order to estimate a limiting production per year, yes.

Q. There are wells in there that won't make one-ninth of the total deliverability, isn't that fair to say?

A. That's possible, yes. We redetermine that each year.

Q. Now, when I look at the pressure information that you've depicted on Exhibit 8-A--

A. Here it is. I've got it.

Q. --if there's an asterisk in front of the number, that is an actual measured pressure?

A. Yes, sir.

Q. If there is not, then that is a computed pressure?

A. Yes, sir.

Q. If I look at this, there are only two pressures utilized for the Pitchfork 34-1, is that right? There at the top, they're the first three entries plus the fifth. There are four of them.

A. Yes, the first three entries.

Q. When you utilize pressure information on the Pitchfork 34-1, did you utilize that 9/1986 figure or did you adjust that as you went forward anticipating further pressure to climb?

A. I'm not sure I understand the question. I'm sorry.

Q. Were these figures utilized by you in doing your model study?

A. Not in the model. They were helpful in determining the original reservoir pressure.

Q. That's all you utilized them for?

A. They were used to develop 8-2, the POZ plot.

Q. There was nothing in terms of this pressure information that would have found its way into your model study?

A. We used this as a guide to see how the pressures degreed with different time steps.

Q. Now, if I understand it, you're recommending that prorationing be implemented in the Pitchfork Ranch-Atoka Gas Pool on 1/1/90. When that happens, how do you propose that it work? Would all wells be classified as nonmarginal going into the prorationing period?

A. Yes.

Q. And then would they go in with a zero status or an over- or underproduced status?

A. I would not know on the particulars.

Q. Have you estimated how long it would take for certain wells to be reclassified in the prorationing system?

A. No, sir, I haven't.

Q. Did you make any estimate of how many marginal or nonmarginal wells would ultimately result by going through this process?

A. I don't have the numbers in front of me. The man that ran the model knew that there were several. I'm aware that there's a couple, probably, that are marginal.

Q. That are marginal?

A. That would be soon.

Q. Do you know ultimately how many marginal and nonmarginal wells would, in fact, be in this pool?

A. No.

Q. Wouldn't you need to know that if you were to estimate how prorationing was really going to affect the overall production?

A. Well, what we did do, we did it on one-year time steps. We ran a full year at capacity and then took one-ninth of that, and then, for a period of a year we left that as a maximum production permissible from any one well, even though some wells perhaps might not make that. After that year is over with, the withdrawals that actually came out from the model, we then redetermined the deliverability. So we redetermined once a year.

Q. You've redetermined deliverability, not how the wells would be classified under a prorationing system, is that right?

A. That's true.

Q. Have you reviewed, in preparing this presentation, prior cases concerning prorationing in New Mexico?

A. No, sir.

Q. You are recommending that prorationing be implemented on a straight acreage basis, isn't that correct?

A. Yes.

Q. Based on your modeling of this reservoir, is it possible for you to determine current recoverable reserves under each tract, each of the nine tracts that have wells on them in the pool?

A. Some of the wells are in current reserves now, but are not on the tract.

Q. They would be on the tract today, would they not?

A. They would be on the tract today as they go into the well bore, yes, sir.

Q. Could you determine what would be the recoverable reserves under these tracts with the data that you have, within reasonable engineering

limitations?

A. In other words, the amount of gas underneath each tract?

Q. As of this time.

A. Yes, that could be done.

Q. That would be practicable for you to do?

A. Yes, that could be done, I believe.

Q. Within reasonable--I mean, there are always some variations, but within your discipline?

A. Uh-huh.

Q. Could you also do that on, say, determine the deliverability of each well? You can do that, certainly, on all the wells in the pool?

A. Yes.

Q. Could you base prorationing on the well's deliverability? Is that a possible way to go in allocating production?

A. That's a possible way to go.

Q. Could you determine gas in place at this time under those tracts--each of the tracts in the pool?

A. Yes.

Q. Do you have an estimate of what the total gas in place in the pool would be?

A. Now?

Q. Yes. Could you estimate that? I don't want you to do it now. I'm just asking if that is something you could do.

A. Yes.

Q. As an engineer you could do that?

A. Yes.

Q. You could get the total recoverable reserves in the pool? You could practicably do that, too, couldn't you?

A. And we have done that, yes.

Q. And so any of these other methods would be possible ways to prorate the pool, isn't that right?

A. They are possible ways.

Q. You have the data to make the engineering determinations to do that, if that's what you were asked to do?

A. Yes.

Q. Now, have you made any calculations or estimates of what impact prorationing would have on the short-term ability of the well to deliver--I'm sorry. Strike that.

Have you made any estimate of what impact prorationing would have on the short-term ability of the prorationing on this pool's ability to deliver gas? Would it have it immediately increase or

decrease the producing capability, or do you know?

A. It would decrease.

Q. And why would that happen?

A. Because the wells are restricted to one-ninth of the current total deliverability.

Q. Every well that now can produce more than a ninth would be restricted?

A. That's true.

Q. There's a market for all the gas that's currently being produced, isn't that right?

A. Insofar as I know.

Q. And so there would be just more additional market during the period than if prorationing went into effect on the short-term basis?

A. I'm sorry?

Q. If the production is down and the market stays the same, there is just more excess market in this area?

A. I guess you could put it that way, yes.

Q. Or you can put it however you'd like.

Now, let me ask you this: The real concern seems to be with drainage from the No. 34 well. If we prorate, as you propose, that is going to reduce the amount of drainage to the 34 from the immediately offsetting tracts, isn't that correct?

A. Yes.

Q. Do you know of any precedent where prorationing has been utilized in New Mexico to compensate for drainage to better wells in a reservoir?

A. I'm not aware of any.

Q. Now, if our objective in this reservoir is to use prorationing to limit drainage to a better well, it would be fair to say that the Enron, Diamond 5, is one of the better wells in the pool, too, isn't that right?

A. It is.

Q. So to prorate, it might be wise to restrict that well also, to prevent drainage to it from the offsetting properties, isn't that correct?

A. Yes.

Q. If we go to the Meridian well which is also, from these exhibits, seems to be the Pitchfork 4 Fed. No. 2, that appears to be one of the better wells. So to deal with drainage to a better well, that well might also need to be restricted, if we're dealing just with the drainage question?

A. If we're dealing just with the drainage question, yes.

Q. Now, if we go down, we get some wells that

are not quite as good but still appear to be better wells in the pool. Say, the Madera 33-4, I think, would be one of the better wells. If we're trying--and maybe you can give me--I'm trying to take these in reverse order, Mr. Ausburn, just going best to worse.

It looks to me like perhaps the Enron, Page 3 Com. No. 1 would be, if we're going in reverse order, would be about the fourth best well in the pool? And I won't go through all of them.

MR. STOVALL: That's good, Mr. Carr.

Q. But if we take, say, the Enron, Page 3 Com. No. 1, that's also better than the offsetting wells, and we're trying to prevent drainage to it, we might restrict that well, too? Isn't that fair to say?

A. Are we trying to prevent drainage, too? We're also concerned about correlative rights but we're trying to promote additional recovery from the reservoir also.

Q. But in terms of the correlative rights question, aren't we trying to protect the reservoir, protect offsetting tracts from drainage to the 34-1?

A. Yes, from all other wells, yes.

Q. Yes, and if we take that logically and move through these wells, the same test would have to apply

to the Diamond Fed. No. 3, isn't that right?

A. Yes.

Q. And then to the Meridian, Pitchfork No. 4, isn't that correct, because it's better than the offsets?

A. Those are the two stronger wells besides the 34-1.

Q. And then we get to the third strongest well, whatever it is, say it's the Page 3 Com. No. 1, we would have to do the same with it, isn't that true? If we're trying to protect from drainage to the better wells from the poorer wells, we have to continue to limit better wells that are offset by poorer wells, isn't that right?

A. I'm not sure how this number compares to its gas in place, to tell you the truth.

Q. If we take this principle and go forward with it, it can't just apply to the Madera 34-1, it has to apply to the other better wells that are benefitting at the expense of their neighbor, isn't that right?

A. It would apply to all of the wells.

Q. If it applies to all of the wells, then, in fact, aren't we having to look to the worst well in the pool to protect it from the better wells that

offset it, if we're just looking at using prorationing to protect correlative rights?

A. If we're just looking to protect correlative rights?

Q. Yes.

A. I think they ought to be limited by the amount of gas available to each drainage well--drainage point. But we're long past that situation now.

Q. If we're looking at just drainage and we're trying to protect everyone from the 34-1, and we take that to its conclusion, we have to go to the worst well in the pool and say we want to protect it from the better wells that are draining from it, isn't that right?

A. Within reason, within reason, but as long as that well is capable of producing its share.

Q. All right. As long as it's capable of producing?

A. Yes.

Q. Now, I am going to ask you some questions that you may not know anything about and you can escape by saying so.

In your work on this project, Mr. Ausburn, have you become aware of what interest Parker Drilling

actually has in any of these properties?

A. Vaguely.

Q. Do you know how that interest was acquired?

A. Not well, no.

Q. Do you know the term of that ownership interest, if there is one?

A. No.

Q. Have you seen any of the documents concerning the acquisition of the interest?

A. No, sir.

Q. So it's fair to say you don't know the details of how they acquired them?

A. No, I don't know the details.

MR. CARR; Then that's all I have. Thank you.

MR. PEARCE: May I, Mr. Examiner?

MR. STOVALL: Let's give Ms. Callahan a chance to cross-examine.

MS. CALLAHAN: I'll pass right now.

MR. STOVALL: Did you want to enter your appearance?

MS. CALLAHAN: Yes, I do. I would like to enter an appearance for Robert Landreth.

HEARING EXAMINER: Are there any objections?

MR. PEARCE: No objection.

MR. CARR: No objection.

MS. CALLAHAN: He's entering in opposition to the application.

HEARING EXAMINER: Thank you, Ms. Callahan. Mr. Pearce?

FURTHER EXAMINATION

BY MR. PEARCE:

Q. A couple of matters briefly, just for clarification of the record, if I may. During his cross-examination, Mr. Carr referred a couple of times to the Page 3-1 well. I would ask you to refer to your Exhibit 1 or some other well listing, and let's just make sure that the well at issue in the Pitchfork-Atoka Ranch Pool is the Page 3 Well No. 2?

A. Yes.

Q. Similarly, Mr. Carr referred to the Madera 34 Well No. 1, and I believe that should be the Madera 33-4 well, is that correct?

A. There is a 33-4, yes.

Q. And is there a Madera 34-1?

A. No, there is not.

Q. With that out of the way, a couple of things. Mr. Carr, several times during his cross-examination, had you answer questions as if the

protection of correlative rights were the only matter at issue in this proceeding. Do you recall that?

A. Yes, sir.

Q. In your opinion, is that the only matter at issue in this proceeding?

A. No, sir.

Q. Similarly, Mr. Carr looked at some percentages with you and he calculated that the increase in estimated ultimate recovery from the institution of prorationing in this pool was 1.4 percent. Do you recall that?

A. Yes, sir.

Q. But, in fact, the estimated ultimate recovery is simply your calculation of remaining recovery plus the historical cumulative production, is that correct?

A. That's true.

Q. So the additional 354 or 355 million cubic feet is, in fact, an increase in the estimated remaining recoverable reserves, is that correct?

A. That is true.

Q. And that comes out to about 4.4 percent?

A. 4.4 percent.

Q. Do I recall that you expressed your opinion that that incremental increase in reserves is, in

fact, a reliable product of your study and the use of the model, that there is, in fact, a real increase in ultimate recovery from the wells in the Pitchfork Ranch-Atoka Pool?

A. This is true. The Case A and Case B scenarios were run exactly with the same model and input data. We were looking for a relative shift. I take comfort in that personally, from my point of view, that it is a real number.

Also, the pressures shown on Exhibits 18 and 19, the fact that they conform to a real pattern and not a statistical random pattern, but conform to a real and intuitive pressure distribution in the reservoir, is also, I think, further indication that the results have physical meaning.

MR. PEARCE: I have nothing further at this time, Mr. Examiner.

MR. CARR: If I might, just one follow-up? or would you like me to shut up for a little while?

HEARING EXAMINER: I would like to ask some questions here.

MR. CARR: All right. I have one later.

EXAMINATION

BY MR. STOGNER:

Q. Mr. Ausburn, what is Parker's interest in

this pool?

A. They have some kind of production payment arrangement, I believe.

Q. You'll have to elaborate on that.

A. How about, I'm not sure. Is that an adequate answer? They are due some payment, I believe, from production from wells in this reservoir.

Q. Which wells?

A. Well, I think all the wells except 34-1, Cox 4-2, and the Meridian well. I would presume the Pitchfork 4-2.

Q. But you do not know what Parker's interest as a percentage is in the wells that you have mentioned that they do have some interest in?

A. No, sir.

Q. Is this a working-interest arrangement? Would that be safe to say?

A. I don't think it's a working-interest arrangement.

Q. I want to refer to Exhibits 18 and 19. You show an X and Y axis. What is that?

A. That's just east, west, north, south direction. This is a grid block.

Q. Yeah. What is the one, two, three, four? What am I looking at? Is that feet? inches? miles?

A. Those are grid blocks. This has a physical scale, it's one inch equals 2,000. Perhaps that's not noted on here. It may not be.

MR. STOVALL: That would not be true on the shrunk versions that we have in front of us?

THE WITNESS: No. That's true. On my copy it's one inch equals 2,000.

Q. We'll call it one unit equals 2,000 feet; how's that?

A. Yeah. Something like that. I could scale that off. But these are methods of locating physical parameters in the reservoir. And we have a 13 by 10 grid block, and the reservoir has been gridded so that one can allow for porosity and permeability and saturation variations laterally through the reservoir.

MR. STOVALL: Mr. Examiner, may I ask a follow-up question to that while you're sorting through the exhibits?

HEARING EXAMINER: Yes, please.

EXAMINATION

BY MR. STOVALL:

Q. Do you have a map which shows the grid blocks relating to these sections, or anything that would show us how those grid blocks fit in, or can you tell us what the limits of the grid block are, in

terms of actual land locations?

A. The well spots shown are real well spots, and the distance between the wells are, and that would be one way to get to scale on the reduced copies, is the distance between the different well spots would relate this grid model to a map.

Q. If I look at these, it appears on my copy that the grids are not all the same size. It's not a squared grid, is that correct?

A. That's true. They're rectangles but they're not all the same. And that's common. If one had an aquifer, one would have one large block, one grid, and you could tack it on at an appropriate end of the grid.

FURTHER EXAMINATION

BY MR. STOGNER:

Q. Mr. Ausburn, do you know how much pipelines are in this particular pool?

A. No, I don't.

Q. And there are no unorthodox locations that you're aware of?

A. None that I'm aware of.

Q. Let's look in Section 4, that's the J. L. Cox No. 2, and I'm looking at your Exhibit 5. Is that, indeed, a stand-up proration unit?

A. Yes, sir.
Q. Would that not be an unorthodox location?
A. Looks pretty close, doesn't it?
Q. Yes, it does. Do you know what the administrative order, or was that order issued for approval of that unorthodox location by hearing?
A. I don't know.
Q. And all the proration units are roughly 320 acres?
A. Yes, sir.
Q. Now, you touched on the market of the gas presently. Would you run that by me again, but a little more in detail? Does the market exceed demand in this particular pool at this time?
A. I think I said that I don't know for sure, but I'm under the impression that the wells are able to sell, if they like the price, essentially all the gas that they're able to produce.
HEARING EXAMINER: Mr. Carr, I'll allow you to continue with your questions.

FURTHER EXAMINATION

BY MR. CARR:
Q. Mr. Ausburn, on Exhibit No. 5, you've placed the State proration units. Did you do that yourself, or did you get that data from someone on

your staff?

A. Well, my staff did it.

Q. If, in fact, in Section 4 we have laid-down instead of stand-up units, those would be at standard locations, would they not?

A. Yes, I would imagine they would be, yes, sir.

Q. You don't know whether or not that might be an error?

A. It might be.

Q. Mr. Pearce had a couple of questions, and I just want to be sure I understand what you were saying. He was talking about additional reserves that could be recovered, I think, and we've been talking about an increase of 1.4 percent of something and 4.4 percent of something else.

Could you tell me what those numbers are? I'm just confused.

A. The difference in the estimated recovery of reserves as of 7/1/89, is 355 million. The prorated case would predict 355 million additional cubic feet would be recovered, and that, divided by the estimated recovery from the nonprorated case, is 4.4 percent.

Q. So the additional recovery is not 1.4, it's 4.4?

A. The additional recovery is 4.4.

MR. CARR: I didn't understand it. Thank you very much. That's all I have, Mr. Stogner.

MR. STOVALL: Mr. Examiner, I would like to follow up a little more, if I may?

HEARING EXAMINER: Mr. Stovall, please.

FURTHER EXAMINATION

BY MR. STOVALL:

Q. Do you know how much gas was produced from the 34-1 from September of '83 to February of '86?

A. I don't have those numbers readily available. I have the number up to July 1, '89. Of '86, well, before--no, I don't have that number in hand, no, sir.

Q. Do you have the numbers showing the current producing rates or capacity of the wells in the pool at the present time?

A. Yes, I have those, I think.

Q. Are those in such a form that they could be put into the record?

A. Read into the record? If I can find them. I have a handwritten note here somewhere. Here they are. Well, these are productions as of July 1, 1989. That's what I have readily available.

Q. How are the numbers stated?

A. They're in MCF per day.

Q. Could you go ahead and just run through those quickly? And perhaps, just to make it easier, we could use Exhibit No. 2, which seems to be the order of the wells. Would that work?

A. Yes, this is in the same order, yes, sir. We would have estimated--and this is, I think, average June production--3,128 MCF per day.

MR. PEARCE: I'm sorry. Let's be more specific. On the Enron 34-1.

A. On the 34-1, 3,128 MCF per day.

We have an estimated number for the Cox 4-2, the second well, of 233. The well--it's not clear. The well is off production. It was off production for that month. Its actual reported number was zero, I believe, if you want to footnote that.

The third well down, the Diamond 5-3, 1,268 MCF per day.

The next well down, 32 State No. 3, 506 MCF per day.

The Madera 33-3, 832 MCF per day.

The Madera 28-2, 1,035 MCF per day.

Page 3-2, 772 MCF per day.

Madera 33-4, 700 MCF per day.

And the last well, the Pitchfork 4-2, 1,415

MCF per day.

Q. And where did you get this information?

A. Public records.

Q. I believe, if I understood your testimony, you stated that all of the wells were able to produce whatever they wished to sell given the price at any given time. There was no inability to get to the market at the going price on any given day, is that correct?

A. That's my understanding.

Q. How would you anticipate we set the total pool allowable if this pool were prorated? What number would that be? Have you got a feel for that number?

A. Well, it would be something that would come off of Exhibit 15, probably, which would be on the order of 5,000 MCF per day, yes.

Q. Let's take Exhibit 15 as your reference point, being a point in time, recognizing that the allowable varies from month-to-month based on the factors that would go into the system. How would you arrive at that number at that point in time? How did you pick 5,000 whatever it is?

A. That's one-ninth of the average deliverability for the year 1990.

Q. So what I understand you're suggesting then is that--

A. Excuse me. That's--well, that is the sum of all the well deliverabilities divided by nine times nine then. That sounds confusing.

Q. It does sound confusing, yes.

A. Let me try something else. The total pool would have been 5,000 MCF a day.

Q. That's based upon the ability of those wells to produce at that point in time?

A. Yes.

Q. And then what you would suggest doing then is reallocating that production to each of the wells based upon a surface acreage, a one-ninth calculation, is that correct?

A. Yes. Each well would have one-ninth of 5,000, yes. And that's an average.

Q. And then, in fact, would that not--and then what you would do, you would find that some of those wells were incapable of producing their allowable, would you not?

A. At some point in the year perhaps that's true, yes.

Q. And if the wells which were capable of producing in excess of their allowable only produced

the allowable, you would actually get deliveries into the market of less than demand, assuming that the market will absorb all of the gas that could be produced from the reservoir?

A. That's true.

Q. Why would we want to do that?

A. To get more gas ultimately from the reservoir.

Q. So you are suggesting that the sole purpose of prorating this pool is, to put it in the terms of the statute, to prevent waste by increasing the ultimate recovery of gas from the pool?

A. That's true.

Q. I guess I'm not sure I understand the cause and effect relationship. You've shown us some exhibits that say if the pool is prorated there will be an additional recovery of 300,000-something, is that correct, MCF?

A. 355 million, yes.

Q. 355 million cubic feet of gas. I'm not sure I understand the causal connection between prorating the pool and the additional recovery.

A. It causes the distribution in the reservoir pressure to be more even, the distribution of reservoir pressure to be more even.

Q. What would the allowable for the 34-1 be, at that point in time we're talking about? What would the allowable for that well be?

A. 560 MCF a day.

Q. As opposed to its capacity of 3,100?

A. Yes.

Q. Current capacity of 3,100?

A. Yes.

Q. So while it could overproduce, it would quickly reach the six times overproduced limit? Is that your assumption?

A. I would assume.

Q. Is there any restriction on pipeline capacity and getting gas out? I'm assuming there is not, since you've said each well can produce into the market.

A. We have assumed there's not.

MR. STOVALL: I have no further questions.

MR. PEARCE: Mr. Examiner, I'm a little hesitant. I have some information on the Parker interest in each well in which Parker has an interest. I don't think between Parker, Enron and Samedan there's a dispute about that, and subject to verification after the hearing I'm happy to tell you what my records reflect that interest would be, if it

would help you in your analysis of this matter.

MR. CARR: I also have a witness who can give the percentages and will do that, and I agree there's no dispute as to those.

HEARING EXAMINER: The reason I asked that question, I was just a little bit confused as to what Parker's interest was.

MR. PEARCE: Parker does, in fact, have a working interest in seven of the wells, Mr. Examiner. Six, I'm informed.

MR. STOVALL: Mr. Pearce, as long as you've broached the subject and you may wish to defer to the witness, but does that include the 34-1?

MR. PEARCE: No.

HEARING EXAMINER: Nor the Cox 4-2, nor the Meridian 4-2, is that correct?

MR. PEARCE: That's correct.

HEARING EXAMINER: Are there any other questions of this witness at this time? If not, Mr. Ausburn, you may be excused. Let's take a little break, about 10, 15 minutes.

(Thereupon, a recess was taken.)

HEARING EXAMINER: This hearing will come to order. Mr. Carr?

MR. CARR: May it please the Examiner, at

this time we'll call Gary L. Thomas as a witness.

GARY L. THOMAS

Called as a witness herein, after having been first duly sworn upon his oath, testified as follows:

EXAMINATION

BY MR. CARR:

Q. Will you state your full name for the record, please.

A. Gary L. Thomas.

Q. Mr. Thomas, where do you reside?

A. Midland, Texas.

Q. By whom are you employed and in what capacity?

A. I'm employed by Enron Oil & Gas Company, I'm vice-president and general manager of the Midland Division.

Q. Have you previously testified before the New Mexico Oil Conservation Division?

A. No, sir.

Q. Would you review your educational background and then briefly summarize your work experience?

A. I graduated from the University of Texas with a B.S. in petroleum engineering in 1972; also obtained a master's of engineering management from the

University of Tulsa in 1983; and have 17 years oil and gas experience with Major Oil Company, Union Oil Company of California, Apache, and also Enron Oil & Gas Company.

Q. Are you familiar with the application filed in this case on behalf of Parker Drilling Company?

A. Yes, sir.

Q. Are you familiar with the contract between Enron and Parker and the wells that were drilled pursuant to that contract in the Pitchfork Ranch-Atoka Gas Pool?

A. Yes, I am.

Q. What is Enron's purpose in appearing here in this case?

A. In opposition to prorationing for the Pitchfork Ranch-Atoka Pool.

Q. Could you identify what has been marked as Enron Exhibit No. 1, please, and review it for the Examiner?

A. Yes. This is a drilling agreement between Enron, formerly HNG, and Parker Drilling Company. It provided for Parker to drill 22 wells on Enron Oil & Gas Company leasehold in Eddy and Lea Counties, New Mexico, paying all costs except for leasehold and title costs.

Q. And at what rates was Parker to be compensated for this drilling work?

A. Parker's day work contract was to be $5,800 a day, at least, in order to debit the pay out account.

Q. What was the going day work rate at that time?

A. The competitive day work rate was $4,300 per day, which was charged to the nonagreement parties.

Q. How were they compensated for materials and services provided?

A. Materials and services were charged to the payout account at 120 percent, or 20 percent surcharge.

Q. Is interest due on the unpaid balance in that payout account?

A. Yes. Interest was charged at a rate of two percent per annum over and above the Texas Allied Bank per annum rates.

Q. And how was this payout count to be satisfied? How was it to be paid?

A. Enron, at time of completion of each well, was to assign to Parker a limited assignment of oil and gas leases, 85 percent of Enron's mineral and

working interest.

Q. Were these interests actually assigned to Parker?

A. Yes.

Q. Was it done on a well-by-well basis?

A. Yes.

Q. As a result of that, does Parker own a working interest in six wells in this pool?

A. They do.

Q. Do they own an interest in the 34-1 well?

A. No, sir.

Q. Has paycut of the payout account occurred at this time?

A. No, paycut has not occurred.

Q. Do you anticipate a payout date?

A. We do not expect that the entire program of 11 wells, as it is currently, will pay out.

Q. And there were only 11 wells drilled under the program, not 22?

A. There were, at one point, 13 wells, and now there's 11 wells in the payout account.

Q. How many wells were drilled pursuant to this agreement in this pool, the Pitchfork Ranch-Atoka Gas Pool?

A. There were six wells drilled and completed

in the Pitchfork-Atoka Pool.

Q. If you look at just these six wells, would they pay out all the costs associated with the development of this pool?

A. Yes, sir.

Q. How were the wells that were drilled pursuant to this drilling contract actually selected?

A. Enron designated the locations and provided to Parker Drilling in completion programs and authority for expenditures or AFEs.

Q. Did you supply this just to Parker or to anyone else?

A. It was supplied to Parker and then also to Ed Cobb, a petroleum engineering consultant in Tulsa.

Q. Was he employed by Parker?

A. Yes.

Q. Did Parker ever express to you any concern about any of the proposed well locations?

A. No, not to my knowledge.

Q. Are you an appropriate person to whom this concern would have been addressed?

A. Yes, I should have been aware.

Q. Could you identify for us what is marked as Enron Exhibit No. 2?

A. Yes. This is a list of all of the wells

that were included in the Enron-Parker drilling program at some point.

Q. And from this list you can tell which were in the Pitchfork Ranch and which were in the other pools?

A. Yes, from the field designation on the list, it indicates that six are completed in the Pitchfork Ranch-Atoka Pool.

Q. Could you identify now what is marked as Enron Exhibit No. 3?

A. Yes, sir, this is a letter dated July 21, 1986, the same date as the drilling agreement, that provides for inclusion of two wells, the two noted on the top of Exhibit 2, which were completed prior to the date of this drilling agreement.

Q. So they were added to the drilling agreement?

A. Yes, sir.

Q. Would you then go to Exhibit No. 4?

A. Yes. This is a letter dated September 9, 1987, whereby these two wells were excluded from the drilling agreement.

Q. And when these were excluded, that reduced the number of wells under the package from 13 to 11; is that correct?

A. That's correct.

Q. Did you ever receive any complaints from Parker about the methods employed by Enron operating any of the wells that you operate in the Pitchfork Ranch-Atoka Gas Pool?

A. I'm aware of no complaints.

Q. If we look at this original drilling agreement, is there anything in the agreement that guaranteed ultimately full payout to any party?

A. No, sir. It was non-recourse financing. It can be noted, I believe on page 10 here, paragraph 5.9(B), that notes the Parker further agrees that the sole consideration received by Parker for all such costs, credits and contractual amounts shall be the above-described limited assignments of oil and gas leases to be assigned by HNG, now Enron, to Parker. And that limited assignment is the 85 percent assignment of Enron's interest.

Q. We're talking about Exhibit 5 being the assignments, is that correct?

A. Exhibit 5 is the assignment--this is copies of assignments of these two wells from Parker back to Enron after they were excluded from the program, saying they were not going to facilitate payout of the drilling agreement or payout program.

Q. At this point in time, if gas prices stay where they are, do you anticipate a pay out of the payout account under this drilling program?

A. No, sir.

Q. If wells would be assigned back, would they all be assigned back at one time?

A. Yes, if the program were to pay out, all interest previously assigned to Parker would be a reassigned to Enron Oil & Gas Company.

Q. Were Exhibits 1 through 5 compiled under your direction and supervision from the records of Enron Oil & Gas Company?

A. Yes, sir.

MR. CARR: At this time, Mr. Stogner, I would move the admission of Exhibits 1 through 5.

MR. STOVALL: Mr. Examiner, before we admit those, I would like to identify what appears to be a problem with our copies of the exhibits. My Exhibit No. 1 appears to be missing pages 11 and 12 and yours appears to be missing pages 13 and 14.

THE WITNESS: Mine is complete.

MR. CARR: We'll make additional copies of 11, 12, 13 and 14 and provide those to all parties and the Commission.

HEARING EXAMINER: Are there any

objections?

MR. PEARCE: No objection.

HEARING EXAMINER: Exhibits 1 through 5 in their entirety will be admitted into evidence.

MR. CARR: That concludes my direct examination of Mr. Thomas.

HEARING EXAMINER: Thank you Mr. Carr. Mr. Pearce, your witness.

EXAMINATION

BY MR. PEARCE:

Q. Mr. Thomas, just very briefly. I want to understand, your Exhibit 5 is the assignments back from Parker to, was it Enron at that time?

A. Yes, it was Enron at that time.

Q. There are, in fact, assignments which are binding and which have been recorded, assigning the interests in each of the six wells from HNG, or Enron, to Parker?

A. Yes, sir. An example of that limited assignment of oil and gas lease is in Exhibit 1.

Q. Are you, Mr. Thomas, the witness who was mentioned earlier who could tell us what percentage--do you have that information available to you, the percentage held by Parker in each of the six wells in question?

A. Yes, sir.

Q. Could you read those to us and identify whether it's net or gross interest, or what kind of interest it is?

A. Okay. This is the working interest. I've rounded it off to two places. Parker has a 29-percent working interest in the Page 3 No. 2; a 66-percent working interest in the Diamond 5-3; a 55-percent working interest in the Madera 32 No. 3; 35 percent in the Madera 28 No. 2, and a 50-percent working interest in the Madera 33 No. 4; 43-percent working interest in the Madera 33 No. 3.

MR. PEARCE: Thank you, sir. I have nothing further of this witness, Mr. Examiner.

HEARING EXAMINER: Ms. Callahan, do you have any questions of this witness?

MS. CALLAHAN: No, I don't.

HEARING EXAMINER: If not, you may be excused.

MR. CARR: At this time we would call Mr. Hoyle.

ANDREW N. HOYLE

Called as a witness herein, after having been first duly sworn upon his oath, testified as follows:

EXAMINATION

BY MR. CARR:

Q. Would you state your full name for the record, please.

A. My name is Andrew N. Hoyle.

Q. Mr. Hoyle, where do you reside?

A. I reside in Spring, it's a suburb of Houston, Texas.

Q. By whom are you employed?

A. I'm employed by Enron Oil & Gas Company.

Q. What position do you hold with Enron?

A. My position is vice-president of marketing for Enron Oil & Gas.

Q. How long have you been in this position?

A. Next month it will be two years.

Q. Have you previously testified before this Division?

A. No, sir, I have not.

Q. Would you review your educational background and briefly summarize your work experience.

A. Yes, sir. I received a bachelor of science degree in chemical engineering from Texas Tech University in 1973; upon graduation I went to work for Exxon as a reservoir engineer. I held reservoir engineering and gas process engineering positions with

Exxon, as well as Texas Oil & Gas.

MR. STOVALL: Can we stop for just a second?

(Discussion off the record.)

MR. STOVALL: This hearing will adjourn until 1:15 p.m.

(Thereupon, the noon recess was taken.)

HEARING EXAMINER: The hearing will come to order. Mr. Carr, I'll let you start all over again with this second witness.

EXAMINATION RESUMED

BY MR. CARR:

Q. All right. We'll just start at the beginning again. Mr. Hoyle, would you state your full name for the record, please.

A. Yes. My name is Andrew N. Hoyle.

Q. Where do you reside?

A. I reside in Spring, a suburb of Houston, Texas.

Q. Sounds like we've practiced this. Mr. Hoyle, by whom are you employed and in what capacity?

A. I'm employed by Enron Oil & Gas Company as vice-president of marketing.

Q. How long have you held that position with Enron?

A. It will be two years this January.

Q. Have you previously testified before this Division?

A. No, sir, I have not.

Q. Would you briefly summarize your educational background and then review your work experience.

A. I received a bachelor of science degree in chemical engineering from Texas Tech University in 1973; after graduation I went to work for Exxon as a reservoir engineer. After that initial assignment I had other reservoir engineering and gas process engineering assignments not only with Exxon but with Texas Oil & Gas and Perry Gas Companies.

I joined Houston Pipeline in June of 1985. Houston Pipeline is a subsidiary of Enron Corp. And after working there I came to work for Enron Oil & Gas or was assigned to Enron Oil & Gas in January 1988.

Q. Is the Pitchfork Ranch-Atoka Gas Pool within your geographic area of responsibility?

A. Yes, sir, it is. I'm responsible for all the gas marketing activities of Enron Oil & Gas Company.

Q. And what does your job entail? What are your duties?

A. Our job involves identifying a gas purchaser and then negotiating and securing the required agreements to effect that sale.

MR. CARR: We would tender Mr. Hoyle as an expert witness in the area of gas marketing.

MR. PEARCE: No objection.

HEARING EXAMINER: Mr. Hoyle is so qualified.

Q. Mr. Hoyle, to whom is gas from the Pitchfork Ranch-Atoka Gas Pool sold?

A. The gas is primarily dedicated to Transwestern Pipeline, but we can sell some volumes to third parties or other purchasers in the area. Transwestern's pipelines are connected to our wells but, you know, it's our responsible to get this gas to not only Transwestern but to the other purchasers, you know, via Transwestern.

Q. What is the current status of the market for gas from this particular pool?

A. We currently have a market that does exceed the capacity of the wells to produce in the Pitchfork Field. Our market is very constant. It's pretty much a year-round demand, nonseasonal type restrictions don't appear here in this area.

Q. Do you have an opinion as to what the

market will be for gas from this pool in the future?

A. Yes. Well be able to continue to produce all the gases available at the Pitchfork Ranch Field. This gas ends up going to the Southern California market area, which is one of the largest gas-consuming areas in this country.

Q. What are you doing now currently to keep the production up from this pool?

A. We are currently working with Transwestern to evaluate the potential installation of central gas compression facilities in the field. By doing this, this will enable us to continue producing the field and to do these sales.

Q. What would happen if this pool is prorated and gas production from the pool is restricted, even on a temporary basis?

A. Well, simply what will happen is that the purchasers will seek gas supplies from other areas, namely West Texas, the Texas Panhandle and Western Oklahoma.

Q. Do you have anything further to add to your testimony?

A. No, sir, I do not.

MR. CARR: Thank you. That concludes my direct examination of this witness.

HEARING EXAMINER: Thank you, Mr. Carr. Mr. Pearce?

MR. PEARCE: Thank you, Mr. Examiner.

EXAMINATION

BY MR. PEARCE:

Q. Mr. Hoyle, let me go back and I may be going over something but I want to understand it. Who purchases the gas from this pool?

A. We sell gas to Transwestern Pipeline Company as well as other purchasers.

Q. Transwestern is an affiliate of Enron, is it not?

A. Yes, sir, it is.

Q. We heard testimony earlier that Parker, at least, is an interest owner but does not own interest in all wells in the pool. Are all of the wells in the pool sold under the same contractual arrangement, all of the wells that Enron operates? Is all that gas sold under the same contractual arrangement?

A. The same contractual arrangements that Enron has entered into, yes, sir, that's correct.

Q. So that the same agreements that cover the 34-1 well, cover the other wells in which Parker has an interest?

A. They could. I don't recall specifically

which wells are covered by the agreements, but whatever agreement arrangement we enter into to sell the gas, if it involves Parker's interest then it is included in that contractual arrangement for that sale.

Q. And my question is, and maybe you understood this and tried to get to it, does the same contractual arrangement cover the wells in which Parker does not have an interest that covers the wells in which Parker does have an interest?

A. Not necessarily. It could, but I don't know offhand.

Q. Do you know if the gas is sold at the same price?

A. Generally the gas out there is sold at the same price.

Q. I take it from that you're not sure?

A. Well, in one month there was some gas sold at different prices and I don't know offhand which specific wells that would involve.

Q. What percentage of the gas from the Pitchfork Ranch-Atoka produced by wells that Enron operates is sold to Transwestern as opposed to the percentage sold to other purchasers?

A. I don't know offhand because we work with,

it's like 27 or 30-some-odd wells in the total Pitchfork Ranch area, and offhand I do not know which wells are in the Atoka or the other reservoirs there regarding those sales.

Q. And it is Enron's responsibility, under its agreement with Parker, to market the gas from the wells in which Parker has an interest, is it not?

A. That is my understanding.

MR. PEARCE: I don't think I have anything further. Thank you, Mr. Examiner.

HEARING EXAMINER: Mr. Carr?

MR. CARR: Nothing further, Mr. Stogner.

HEARING EXAMINER: Ms. Callahan?

MS. CALLAHAN: We have nothing.

HEARING EXAMINER: Mr. Stovall?

MR. STOVALL: I have nothing.

HEARING EXAMINER: If there's no other questions of this witness, he may be excused. Mr. Carr?

MR. CARR: At this time we would call Mr. Helms.

L. W. (BILLY) HELMS, JR.

The witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

Q. Would you state your full name for the record, please.

A. L. W. Helms, Jr.

Q. Mr. Helms, where do you reside?

A. Midland, Texas.

Q. By whom are you employed and in what capacity?

A. Enron Oil & Gas as a product production engineer.

Q. Have you previously testified before the New Mexico Oil Conservation Division?

A. Yes, I have.

Q. At that time were your credentials as a petroleum engineer accepted and made a matter of record?

A. Yes.

Q. Does your geographic area of responsibility with Enron include the Pitchfork Ranch-Atoka Gas Pool and the surrounding area?

A. Yes.

Q. Are you familiar with this pool?

A. Yes.

Q. Are you familiar with the application filed

in this case on behalf of Parker Drilling?

A. Yes.

MR. CARR: Are the witness's qualifications acceptable?

HEARING EXAMINER: Are there any objections?

MR. PEARCE: No objection.

HEARING EXAMINER: Mr. Helms is so qualified.

Q. Mr. Helms, would you identify what has been marked as Exhibit No. 6 and review this for the Examiner, please.

A. Exhibit No. 6 is a plat showing the Atoka wells which are circled and colored in purple, and it also shows the spacing units for each well. I might add that each well is located at a standard location and each spacing unit is a standard spacing unit for each well.

Q. If we go to Section 4, in fact there are laid-down units dedicated to the wells in that Section?

A. That is correct.

Q. So all wells in the pool are at standard locations?

A. That is correct. Also to be noted on this

plat are some numbers which represent the calculated deliverabilities for each well at a tubing pressure of 300 pounds.

Q. Why was a 300-pound tubing pressure used?

A. Each well that Enron operates delivers into about a 900-pound line pressure. We have currently put compression on each well and are trying to achieve a 300-pound tubing pressure with that compression.

Q. Has compression been added to the 34 No. 1 well?

A. Yes, it has. It was the last well to go on compression for the wells that Enron operates.

Q. Do you know what the current status of the Cox well is in the north half of Section 4?

A. They've experienced some mechanical problems with that particular well, and I believe it's not producing large quantities of gas. As a matter of fact, I think they've already filed an intent to P & A that well.

Q. Let's go to Exhibit 7, and I would ask you to identify this for Mr. Stogner.

A. Exhibit No. 7 is a list of each well in the field. It gives the operator, the well name, the location, the pipeline connection and some pertinent dates which includes the spud date, the date the total

depth was reached, the completion date and the date of first sales for each well. It lists the wells in alphabetical order by operator, and then under each operator, in chronological order in which the wells were drilled.

Q. The first well in this pool was the 34-1?

A. That is correct.

Q. Following the drilling and completion of that well, what was the next well drilled in the area by Enron?

A. The first well was Pitchfork 34 Fed. Com. No. 1. It was completed in June of '83. The next well to be drilled was the Moore 34 No. 1, which was drilled in '84, I believe, in June of '84, I believe.

Q. And that offsets the 34 No. 1 to the east?

A. That's correct.

Q. And Enron was the operator of that well?

A. That's correct.

Q. What was the next well drilled in the reservoir?

A. The next well was the well drilled by John L. Cox. It was drilled in '86. Enron, still unsure about the extent of the reservoir, farmed out this location to John L. Cox in October of '85. They commenced drilling in January of '86 and completed the

well in February.

Q. Were the remainder of the wells that are operated by Enron drilled as a part of the drilling package with Parker Drilling?

A. That is correct. The drilling program started in the latter half of '86 and continued until August of '87.

Q. I would like now to move to Exhibit No. 8, and I would ask you to identify Exhibit No. 8 and explain what it shows.

A. Exhibit No. 8 is a graphical representation of the production history of the field. It consists of a bar graph which is colored in orange and blue. The orange represents the days each well produced for the month in a percent of the days available to produce.

In other words, if there were 31 days in the month and the well produced 31 days, the orange would show 100 percent on the scale to the right. Consequently, the days shut in is in contrast to that.

The green line shows the barrels of condensate produced for the month. The red line shows the gas quantities produced for the month. The blue line shows the barrels of water produced for the

month.

The first page is a summary for the Pitchfork Ranch-Atoka Field and the following pages represent the production information for each well in the field. And you will note that on the majority of the wells there has not been a problem with delivering gas. It's been produced almost at capacity for the entire life of the field.

Q. If we go to the third page of this exhibit, that's the plat for the John L. Cox well?

A. That is correct.

Q. If we look at the recent production, it shows that, in fact, it was shut in most of the time, is that correct?

A. That is correct.

Q. Does that account for the blue in the upper right-hand corner on page 1 of this exhibit?

A. Yes. You can see, in the latter half of 1989, that well began experiencing mechanical problems and is actually shut in. With nine wells in the field, if one of the wells is down, that represents about 10 percent of the total volume, or the total number of days it will actually be off, and that is depicted on page 1.

Q. And what does this exhibit tell you about

the production from this pool?

A. That there is a market available for the gas from this pool that certainly is as much as what the field will produce.

Q. Go to the last page of that exhibit. That's on the Meridian Pitchfork 4 Fed. Com. No. 2?

A. That is correct.

Q. To whom is gas from this well sold?

A. To El Paso Pipeline.

Q. What does this tell you about the production from the field?

A. That there are two pipeline connections in the field, Transwestern and El Paso. El Paso takes only from this Meridian well and their market is also a very good market such that they're able to produce all the gas that that well will deliver.

Q. Would you identify Exhibit No. 9, please.

A. Exhibit No. 9 is simply the tabulation of the numerical data used to present Figure No. 8.

Q. Anything else to stay about that?

A. No.

Q. Let's go to what has been marked Enron Exhibit No. 10.

A. Exhibit No. 10 is also a production tabulation or graphical representation of the

production. It shows, in red, the MCF produced for each month on that particular well. The blue line indicates the flowing tubing pressure for that particular month, and the dotted black line indicates the prevailing sales line pressure for that particular month.

You can see from the chart that each well was produced at a fairly good rate and, in fact, if you were to glance through these, many of the wells were produced at such a rate to allow the tubing pressure to come down to the line pressure fairly rapidly, indicating they were producing fairly close to capacity. Once they reached line pressure they were not restricted in any way. They were maintained at a rate that they were capable of producing. The only well that was in any way potentially restricted was the Pitchfork 34 No. 1.

Q. Is that the second page in this exhibit?

A. Yes, it is. You can see that the tubing pressure, by sustaining a large margin over the line pressure, the well was actually able to produce more gas than that but the rate was held fairly constant for a period of about five years, and the well was not able to produce at a larger rate.

Q. Other than this well, were any of the wells

in this pool that are operated by Enron restricted in any way during this period of time?

A. No, they were not.

Q. I would like you now to identify what has been marked as Enron Exhibit No. 11.

A. Exhibit 11 is reservoir parameters for each well in the field. These list the completion date for each well and these wells are listed in chronological order according to their completion date. The reservoir pressures are listed where they were available, along with the permeabilities and the calculated porosity feet, porosity net feet of pay for each well.

Q. What does this exhibit tell you?

A. This exhibit shows that the permeability for the Pitchfork 34 No. 1 is excellent, it's 17 millidarcies, but it is also in the same range as other wells in the field, the Diamond 5 No. 3, in fact, has a slightly higher permeability, but it has a lower porosity net feet of pay. The well with the highest porosity net feet of pay is the Pitchfork 34 No. 1, and it is, indeed, the best well in the field.

Q. Now, the Diamond 5 well has permeability of 18.6 millidarcies, is that correct?

A. That's correct.

Q. How does the producing rate from the Diamond 5 Fed. No. 3 affect pressure over in the western portion of this field?

A. The pressure over in the western part of the field is actually, at this point, lower than the pressure sounding the Pitchfork 34 No. 1 in the eastern part of the field. That kind of goes against the testimony we heard earlier, where we could expect to achieve more gas through prorationing. Because if the field were not prorated, the bottom-hole pressure in the western part of the field would be higher at abandonment than on the east side of the field. You can see currently, the bottom-hole pressure on the west side of the field is indeed lower than it is on the east side of the field.

Q. Would you expect that to continue even through to abandonment of the reservoir?

A. Yes, I would.

Q. Has Enron done anything to favor or benefit the Pitchfork 34 Federal Com. No. 1 to the expense of any of the offsetting wells?

A. No, they have not.

Q. Were Exhibits 6 through 11 prepared by you or compiled at your direction?

A. Yes.

MR. CARR: At this time, Mr. Stogner, I would move the admission of Enron Exhibits 6 through 11.

HEARING EXAMINER: Are there any objections?

MR. PEARCE: No objections.

HEARING EXAMINER: Exhibits 6 through 11 will be admitted into evidence at this time.

MR. CARR: That concludes my direct examination of Mr. Helms.

HEARING EXAMINER: Thank you, Mr. Carr. Mr. Pearce?

MR. PEARCE: Thank you, Mr. Examiner.

EXAMINATION

BY MR. PEARCE:

Q. Mr. Helms, if you would please, let's turn to Exhibit 10, the second page, the graphical representation dealing with the 34-1 well.

A. Yes, sir.

Q. I didn't understand your testimony. When you were talking about the difference between the flowing tubing pressure and the line pressure, were you indicating that Enron had done something affirmatively to maintain that difference?

A. Yes. We essentially produced that well at

a constant rate over a period of about five years. The well was capable of producing more gas during this period of time. In other words, you could have pulled the tubing pressure down to a lower point and produced a lot higher volume of gas during the early life of that well. In effect we did not. We maintained that well at a constant rate for a period of about five years.

Q. Explain to me how you, mechanically, how did you do that?

A. Just maintained a certain choke setting to maintain a constant rate.

Q. Do you remember what that choke setting was?

A. No. Actually this is a diaphragm choke. It's not measured in 64ths of an inch. It monitors the pressure differential across the choke to maintain a certain volume.

Q. Were you in the hearing room earlier in the day when Mr. Ausburn testified?

A. Yes, I was.

Q. And have you looked at his isopach?

A. Yes, I have.

Q. Are you in fairly good agreement with that isopach and what it reflects?

A. Yeah, the isopach looks fairly good. I wish to note that some of my porosity and some of the net feet numbers will vary slightly from these.

Like on the Pitchfork 34 No. 1, I believe he had seven feet of net pay, I have eight; he had 17.8 percent porosity, I had 19. A very slight difference.

Q. Looking at this Exhibit 11, under the current reservoir pressure column, the Madera 32-3 well?

A. Yes, sir.

Q. Shows at 1751. When was that pressure recorded?

A. All of these pressures were obtained in October of this year.

Q. And how was that obtained? Is that from the bottom?

A. Yes, we ran a bottom-hole pressure on the bottom and shut the well in for a period of a week to two weeks on each well.

Q. Have you done a study to determine a professional opinion on the original reserves in place under the 320 acres dedicated to the 34-1 well?

A. No, I have not.

Q. Do you know if anyone at Enron has done

that?

A. I'm sure it was done when the well was initially drilled.

Q. You do not know what that is?

A. No, I have no knowledge of that.

Q. Do you have an opinion or have you done a study to determine what the reserves currently under that 320 acres are?

A. No. I haven't taken this pressure and calculated the reserves under that tract.

Q. If I were to ask you to determine the reserves, with the information, do you have the information available to you to make that calculation? and how would you do it if you were asked to do so?

A. Yes, I have the information to do that.

Q. All right, how would you do that?

A. And I would use these current pressures to calculate the bottom-hole pressure, to calculate the reserves under each tract.

Q. Your column labeled porosity feet, help me understand what that means.

A. That is simply the porosity multiplied times the net pay under each well.

Q. For instance, for the 34-1 well, by your calculation, if you had a rockless balloon, it would

be 1.52 feet thick?

A. Uh-huh.

Q. Under 320 acres?

A. Right.

MR. PEARCE: May I have just a minute, Mr. Examiner?

HEARING EXAMINER: Surely.

MR. PEARCE: Okay. I apologize, Mr. Examiner.

Q. Mr. Helms, let's look back, please, at your Exhibit No. 8. The week to two weeks during which the wells were shut in, is that period reflected in blue in the upper right-hand corner of each of the single well graphical displays?

A. That is correct.

Q. I am looking at the graph of the Page 3 Com. 2. I'm having a little trouble interpreting the colors. The bottom most line on that graph appears to go to zero. What does that line represent?

A. That's the barrels of water produced for the month.

Q. And it would appear that in August? or--

A. June or July.

Q. --June or July, the water production in the well went to zero?

A. Yes.

Q. Was something unusual done to that well?

A. No. The problem in a lot of these wells, they're getting to the point where the rates are not high enough to maintain liquid unloading in each well bore and you start encountering a point where the well is unable to unload all the produced fluids in the well bore, and I'm sure that's what this is showing. That is one reason why we started putting compression on the wells.

Q. I'm looking, Mr. Helms, at Exhibit No. 6. I would like for you to look at your copy of that exhibit. Explain to me again the numbers that are in bold next to each of the wells?

A. Those are the calculated deliverabilities for each well at a tubing pressure of 300 pounds.

Q. And which of the wells now have compressors on them?

A. All of the Atoka wells have compression.

Q. That's one of the things I didn't understand. During earlier testimony about marketing gas, I understood that there was a proposal to put a central compression facility on all these wells?

A. That is true. Currently we have individual well-site compressors on each well. We're evaluating

the possibility of having the pipeline company install central compression to lower the sales-line pressure throughout the field, thus eliminating the need for individual well-site machines.

Q. Okay. And currently there are, as I understand it, seven wells under compression, the seven wells that Enron operates?

A. The seven wells that we operate are under compression. The Meridian well is also on compression. The John L. Cox well is not capable of producing significant quantities of gas and, in fact, they have proposed to plug and abandon that well.

Q. Okay. What is the current operating pressure of these wells with compressors on them? You said you were trying to calculate it down to 300?

A. They range, on the six wells, other than the Pitchfork 34 No. 1 that Enron operates, they range from 300 to 400 pounds. On the Pitchfork 34 No. 1 it's currently about 700 pounds.

Q. What is the current producing rate of the Enron 34-1 well?

A. It's--just a minute. Let's see--3.1 million a day at 700 pounds flowing tubing pressure.

Q. And approximately what's the daily producing rate of the other six wells that Enron

operates?

A. On the Diamond 5 No. 3, 1355 MCF per day at 330 pounds.

Q. I'm sorry, which well?

A. The Diamond 5 Fed. No. 3.

Q. That's 1355 presently?

A. 1355 MCF per day at 330 pounds of flowing tubing pressure.

Q. And your calculation indicates 1363 at 300 pounds?

A. Yes, sir. The Madera 32 State No. 3, 1323 MCF per day at 420 pounds; the Madera 28 Fed. Com. No. 2 is 1278 MCF per day at 300 pounds; and the Madera 33 Fed. Com. No. 3, 1304 MCF per day at 390 pounds; the Page 3 Com. No. 2, 1135 MCF per day at 400 pounds; the Madera 33 Fed. Com. No. 4, 1,225 MCF per day at 410 pounds.

Q. Okay. When were the compressors put on those wells?

A. The compressors were installed on the Diamond 5 No. 3 in May of this year. The compressors were installed on the Madera 32 No. 3, the Madera 28 No. 2 and the Madera 33 No. 3, the Page 3 Com. No. 2 and the Madera 33 No. 4 in the last half of October, and the compression was installed in the Pitchfork 34

No. 1 in the first part of November.

MR. PEARCE: I don't have anything further for Mr. Helms at this time, Mr. Examiner. Thank you.

HEARING EXAMINER: Thank you, Mr. Pearce. Mr. Carr?

MR. CARR: Nothing further, Mr. Stogner.

HEARING EXAMINER: Ms. Callahan?

MS. CALLAHAN: I have nothing.

HEARING EXAMINER: Mr. Stovall?

MR. STOVALL: No, I don't have any questions at this time.

HEARING EXAMINER: If there are no other questions of Mr. Helms, he may be dismissed.

MR. CARR: Richard, are you ready?

HEARING EXAMINER: Mr. Carr, you may proceed.

RICHARD L. STAMETS

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your full name for the record, please.

A. My name is Richard L. Stamets.

Q. Mr. Stamets, where do you reside?

A. I live in Santa Fe.
Q. What do you do for a living?
A. I'm a consultant.
Q. By whom are you employed in this case?
A. Enron.
Q. Could you briefly summarize your educational background?
A. Yes. I have a bachelor of science degree, 1956, from Ohio State University in geology.
Q. And then following graduation would you review your work experience?
A. I worked for an engineer here in town as a groundwater geologist for a short period of time and then went to work for what was then the Oil Conservation Commission in October of 1957.
I worked here in Santa Fe two years as a staff geologist, transferred to Artesia where I worked as a staff geologist, worked in oil and gas proration field work, just whatever was required, until 1971, when I came back to Santa Fe as the technical support chief, and then I was appointed Director in November of 1984.
Q. In your capacity as technical support chief, were you involved with the prorationing rules?
A. Yes. And not as much as I was later on,

but I was, to a degree. For example, I was the staff chairman of the committee that worked on the revised gas proration orders--rules which are now in R-8170.

Q. At the time they were actually adopted, what was your role?

A. I was Director at the time they were adopted.

Q. You signed the order approving these rules?

A. Yes.

Q. Have you remained familiar with gas prorationing in New Mexico?

A. Yes, I have.

Q. Have you been called upon, in your jobs with the Commission and since, to understand, interpret and administer the rules and regulations governing the Oil Conservation Division?

A. Yes, I have.

Q. Have you testified as an expert witness on prorationing matters and Oil Conservation Division rules?

A. Well, I'm not certain that I've done that. By the time I got really heavily involved in gas proration matters, I was the director; and, as such, I didn't testify very often. I've done that, though, in depositions in various cases in court on issues

between gas producers and gas transporters.

Q. And that's been since you left the Oil Conservation Division?

A. Yes.

Q. Are you familiar with the Pitchfork Ranch-Atoka Gas Pool?

A. Yes.

Q. Are you familiar with the application filed in this case on behalf of Parker Drilling?

A. Yes.

MR. CARR; At this time, Mr. Stogner, we would tender Mr. Stamets as an expert witness on prorationing and also on rules and regulations of the Oil Conservation Division.

HEARING EXAMINER: Are there any objections?

MR. PEARCE: No objection.

HEARING EXAMINER: Mr. Stamets is so qualified.

Q. Mr. Stamets, what were you asked to do when employed by Enron?

A. I was asked to take a look at this application and the wells in the Pitchfork Ranch to determine whether gas proration was reasonable and appropriate in the pool, and what the impact might be

on the wells in the pool.

Q. And what did you do?

A. I started out by taking a look at the production records that are generated by the Division.

Q. How far back did you go?

A. I looked back a fair amount of time but I really concentrated on the last two and a half years when the majority of the wells had been completed.

Q. And what did you do with this information?

A. I used that to generate some calculated seasonal adjustment factors which the Division would probably use in determining what individual well allowables were or would be, and then I made some test calculations of what allowables would have been in the past, if those factors had been used.

Q. So you estimated what the effect of prorationing would have been if, in fact, it had been implemented prior to this time?

A. Well, not exactly, but I've used the same basic procedures to try and tell me what we're looking at, which wells would be marginal, which would be nonmarginal, what the overall impact of gas proration would be.

Q. And in making this study, what market demand did you assume?

A. Well, I'm not certain that I assumed any particular market demand. I simply used the production that has been shown for that two and a half year period, and the system that the Division uses is one that's designed to allocate the demand to the wells in the pool, and that's basically what I did in this period.

Q. Let's go to what has been marked as your Exhibit No. 12, and I would ask you to go to the first page and identify this, please.

A. Page 1 is the example of how I calculated the seasonal adjustment factors. If you look in the left-hand column, you'll see that I have the year, then the months.

The next column would be production and this would be production from all the wells in the pool for that particular month.

In calculating the first seasonal adjustment factor, let's just take a look at June, what I did was divide June's production into August's production, the basic concept being that the Division uses now, they take the production from the current month to set the allocation for the nonmarginal wells in the second month hence.

So, if you multiply the 445,109 times the

adjustment factor there, you would find it would come out almost precisely at the August production, which is what the intent is of the Division, except they use 10-year averages. I didn't have 10 years, but I had two years that I could use here, so I made my calculations based upon production for the period of June '87 on up through June of '89.

Q. All right. And that's where you get the calculated seasonal adjustment factor shown in Column D on page 1?

A. That is correct.

Q. What is shown in Column E?

A. Column E is just the average of those same months for the two-year period. For example, you take the June '87 of 1.076, June of '88 of 1.157, that will average out at 1.116.

Q. Okay. Then we go on across the exhibit and in Column F, again you have the year?

A. That's correct.

Q. "G" is the month, and then what is "H"?

A. That's the calculated allowable which would result from, in the first case, from multiplying June 1987 production times the average calculated seasonal adjustment factor in Column E, and you come up with a calculated pool allowable.

Q. That's the production in Column C times the factor in Column E gives you the calculated pool allowable?

A. In Column H, that's correct.

Q. And Column I is?

A. Simply the number of wells that were existing at that time.

Q. And the last column on this page?

A. Is Column H divided by Column A. The average, just a straight arithmetic average for the number of wells in the pool.

Q. When we get over on the June 1987 line to the figure in Column J of 70,975, what does that number represent?

A. That's the nonmarginal allocation to all seven wells that were existent at the time if there had been an allocation in August of 1987.

Q. Are these the MCFs per month that each well would get to produce?

A. Correct.

Q. Let's go to page 2, and I would ask you to explain what you've set forth on that page of this exhibit.

A. What I've done in page 2 is go back to April of 1988, April being the beginning of a gas

proration period, and I've plugged in the allowables that I have calculated from the first page of this exhibit.

Perhaps the easiest thing to do is just take a look at the first well, which is the John Cox well. If you come over into Column B, you'll see that the first line is the production line and then the allowable line, then the over/under line, and then cumulative.

When we move into Column C, we can see that the production from the John Cox well was a little over 19,000. The allowable was a little over 52,000, resulting in underproduction--any time you see a positive number in the over/under column that's underproduction--of over 33,000.

The cum. would be the same number in the month of April because that's where we start. And, as you go from left to right, you can see how the cum. figures will change.

In the case of the Cox well, it's always underproduced every month, and so you wind up with a pretty large amount of underproduction at the end of March of that year.

Q. And how would this well be classified, then?

A. Well, the classification process would not normally work until the end of the next four months of the next gas proration period, during which, if it did not produce a nonmarginal allowable, it would be reclassified as marginal. So, it would be something in the order of six months into the next year before that classification would take place.

But, if you just look at it, to me this is clearly a marginal well. It's a well that's unable to make its nonmarginal allowable.

Q. Let's look at the next well on this exhibit, the Diamond 5 Fed. No. 3. And without going into quite as much detail, explain what this shows.

A. The same process was used. I took the actual production from the Division records, I took the same allowables, since all nonmarginal wells would get the same allowable, and you can see this is a well which overproduced every month but the month of March for that theoretical proration year, and it has an overproduced status at the end of each month.

Q. And how would this well be classified, in your opinion, when the classification process worked into the first period?

A. This is a well which would be nonmarginal.

Q. All right. Now, could we go down to line

66 on this exhibit there labeled on the margin? I would ask you to review what is contained on that line.

A. Wells are only allowed to overproduce their average monthly allowable for the last 12 months by a factor of six, and so what I've done is gone through and calculated the six times overproduced limit for these wells using these same theoretical allowables.

Q. And what was the purpose of page 2 of this exhibit? What were you trying to determine here?

A. Well, page 2, then, along with the next page, page 3, are ones that I came up with just to give me an idea of how prorationing would have worked had it been applied on the assumption that if you apply it in the future, it's going to work basically the same way.

Q. Let me ask you a couple of other questions on page 2. Based on the six times overproduced figure, how many wells would actually have been subject to a shut in?

A. Only the Pitchfork 34 Fed.

Q. If you look at the production for April 1988, how does that compare with the production for December and January of 1989?

A. As far as I know, in every instance the

April production was greater than the December/January production.

Q. What does that suggest to you?

A. It suggests to me that the market demand is there for essentially everything that can be produced, and that the pool as a whole, on the individual wells, are defining their capacities.

Q. Let's go to page 3. Could you review any information contained on page 3 that you haven't already covered on page 2.

A. This is the same basic process. It just begins what would be the second proration year, April of '89, and carries that through August. The allowables are there for September and October, but I ended the calculations with the August production.

Q. Have you been able, from this information, to estimate how many pools would be classified as nonmarginal at the end of the second prorationing year?

A. In my view, there would only be four wells which would be nonmarginal based on what I've given here; the Diamond 5 Fed., the Madera 28 Fed. Com. 2, Pitchfork 34 and the Meridian well.

However, when I went back and made calculations of what would happen if those four wells

were the only nonmarginal wells, the Madera well falls out just immediately. It's clearly marginal.

So when I made further calculations, I just left that one out and dealt with what are clearly the better wells, the Diamond, the Pitchfork and the Meridian well.

Q. Now, let's go down to line 75 and I would ask you what this shows?

A. What line 75 represents is the monthly production from the three wells that I've just named, the wells that I believe are clearly nonmarginal wells.

Q. And you get that simply by totaling the monthly production from those wells?

A. That's correct.

Q. Are you ready to go to page 4?

A. Yes.

Q. Would you identify and review that, please?

A. What I've done with page 4 is go back and use the same seasonal adjustment factors that I determined on page 1, for the same period beginning April of 1988, and I've determined what the nonmarginal allowable would be for these three wells based upon their production times that seasonal adjustment factor.

Q. Basically you've done here the same thing you did on page 1, except now you're just looking at the three nonmarginal wells?

A. Yes. I determined the factors on page 1. Now I'm making the allocation based on the previously determined factors.

Q. And the calculated allowable for each of these wells is set forth in Column I, is that correct?

A. Yes.

Q. Let's move on now to page 5 and I would ask you to review what's shown on this page of the exhibit.

A. Okay. If we take a look at page 5, you can see I have all the wells listed but I only go into the allowable, over and under status and cum. status for the three wells.

You can see there, again, that pretty soon the Diamond Fed. well ceases to produce in excess of its allowable. It starts underproducing. The same thing is true of the Meridian well. The only well that's producing more than its allowable is the Pitchfork 34 well.

If we move on to the last page of this exhibit, you can see that that continues.

Q. And what conclusion can you draw from this?

A. Well, my conclusion is that it appears to me there's only one nonmarginal well in the pool and the other wells are marginal, under an appropriate acreage-based proration system. They ought to be classified as marginal, be allowed to produce what they could. Since prorationing is designed to allocate market demand to the wells, then the Pitchfork 34 would be getting the allocation and it would be restricted somewhat because of the way you calculate the seasonal adjustment factors.

If you went through this process for real, surely you would accumulate some overproduction, so there would be some restriction for a period of time but after awhile it would be, essentially, unrestricted. It looks like an exercise in futility.

Q. In your opinion will prorationing work in this field?

A. It will work to limit production from one of the wells for a period of time, but after that, no, it won't be effective. It will work but it won't be effective.

Q. Traditionally, Mr. Stamets, what has been the basis for the implementation of prorationing in New Mexico? That is, under what circumstances would the Division prorate a pool?

A. Well, the Division is allowed to prorate to prevent waste, and when they allocate to prevent waste, generally, as far as I know in 100 percent of the accident cases, they have a situation where the capacity of the wells in the pool exceeds market demand. Those are the two main factors, I think.

Q. If waste is not occurring in a reservoir, in your opinion does the Division have authority to implement prorationing?

A. No.

Q. In your opinion are conditions in this pool such that would warrant the implementation of prorationing at this time?

A. Not based on what I've heard here today.

Q. What are the other factors the Division looks to in determining whether or not to implement prorationing?

A. They aren't necessarily factors on implementation, but once you get into a situation where proration is to be implemented, you're concerned about things like unorthodox locations, nonstandard proration units, multiple pipelines, all of which factors could impact allowables to individual wells.

Q. Are you aware of any of these factors that exist in this pool that would justify implementation

of prorationing?

A. The only factor that seems to apply at all is the situation where you've got two pipelines, but we haven't had any evidence here that that's having any negative impact in the pool.

Q. In your opinion, what impact overall would the implementation of prorationing have on production from this pool?

A. It would reduce production from the pool for a period of time.

Q. Are you aware, based on your experience working with prorationing, of any precedent for utilizing prorationing as Parker seeks here today?

A. You mean, to attempt to restrict the production from one well?

Q. Are you aware of any time when prorationing has been utilized to do that?

A. No.

Q. Do you see any potential danger in approving this kind of an application in terms of future precedent?

A. I can visualize instances where some party who drilled into kind of a tight streak offsetting a good well might come in and ask the Division to limit production to what his well can produce so that he

won't be drained.

Q. Would you recommend that prorationing be instituted in the Pitchfork Ranch-Atoka Gas Pool?

A. No.

Q. If the Division should decide to implement prorationing, do you have any recommendations concerning how that should be done?

A. Yes. In view of what I've done here, I think that if it should be implemented, the Order ought to say that all the wells would be deemed to have entered the first month of the proration period in an underproduced status, and this would allow for the most rapid reclassification of wells to marginal.

Q. Do you believe there's sufficient data on this reservoir to warrant this kind of an action?

A. For prorationing?

Q. Yes.

A. No.

Q. Do you believe that there's sufficient information to justify bringing wells in in an underproduced status?

A. Yes, I think so. I believe that there's clear justification for that.

Q. In your opinion, will granting this application prevent waste?

A. Granting the application? I was unconvinced by any evidence here that any waste would result if the application is not granted.

Q. Was Exhibit 12 prepared by you?

A. Yes.

MR. CARR: At this time, Mr. Stogner, I move the admission of Enron Exhibit No. 12.

HEARING EXAMINER: Are there any objections?

MR. PEARCE: No objection.

HEARING EXAMINER: Exhibit 12 will be admitted into evidence at this time.

MR. CARR: That concludes my direct examination of Mr. Stamets.

HEARING EXAMINER: Thank you, Mr. Carr. Mr. Pearce?

MR. PEARCE: Thank you, Mr. Examiner.

EXAMINATION

BY MR. PEARCE:.

Q. Mr. Stamets, I want to spend a few minutes understanding what we have here in Exhibit No. 12. This study, the first part of this study, dealing with all the wells in the pool--

A. Yes.

Q. --represents what the proration system

would have accomplished if it had begun operation in June of 1987?

A. In part. It's not a precise mirror image of what would have happened. It was done primarily to tell me whether the system was going to be effective, and which wells would be nonmarginal or marginal.

Q. All right. Let's take a look at how your study works. June of 1987, production is 445,000 MCF, is that correct?

A. Yes.

Q. And, as I understand it, if you would have known ahead of time, in that particular instance you went backwards, but that would have come up with, in your opinion, an allowable for August of 478,000? Is that what I understand there?

A. If you just use the first factor, the one in Column D.

Q. Okay.

A. But I averaged two years. The Division uses 10, I did two because I had two full, good years with most of the wells on, and so that's what I used.

Q. That brought you to the 1.116 seasonal adjustment factor?

A. Yes.

Q. And under your study, as you performed it,

June production of 445,109 MCF would have resulted in an August of 1987 allowable of 496,824?

A. That's correct.

Q. All right. And if that allowable had been assigned to the pool for August of 1987, each well in the pool, as I understand this study, would have received an allowable of 70,975?

A. That's correct.

Q. All right. And what would the actual production have been from that pool if each well in the pool received an allowable of 70,975?

A. I would have to assume that based on what really happened, they would have produced 478,755, which is what they did produce.

Q. I'm sorry. I thought you indicated that not all the wells would produce 70,000?

A. Oh, that's true.

Q. Okay. How much would the pool have produced if each well had received an allowable of only 70,975?

A. I'm making the assumption, Mr. Pearce, that we've started the allocation just a month or two prior to August. And by that time, you know, there would be really no history on the pool, no one would be overproduced or underproduced to any great degree, and

so the actual production probably would have been what they actually produced. I may be missing the point of your question here.

Q. Well, let's go much further down in the system and help me understand the assumptions we've got built into your study. January of 1989--

A. Okay.

Q. --you show actual production of 367,482 MCF?

A. Yes.

Q. What was the allowable for January of 1989?

A. Okay. That would be in Column H, it would have been 382,116.

Q. And, according to your study, as I understand it, each well in the pool would have received 42,457 MCF of allowable?

A. That's correct.

Q. What was the actual production of the 34-1 well for the month of January 1989?

A. That looks like 100,434.

Q. 100,434. It appears to me, Mr. Stamets, that your study of monthly allowables is greatly inflated because it assumes that every well has produced the same amount of gas that it would produce without proration being in effect? We have a two and

a half year study of a proration system without the proration system being allowed to operate to restrict production from the pool in any way. Isn't that assumption built into all of your data?

A. If I understand you, I think that's correct. And, as you'll recall, I said I didn't try to exactly mirror the State system.

For example, it's clear to me that the Pitchfork 34 well would have been more than six times overproduced at the end of August, and would have been required to have shut in.

Q. And that is in August of what month, sir? Where are you looking? Direct my attention, please.

A. I'm on the second page of the exhibit, and looking at Column G, about line 52, you've got the cum. overproduction of 341,937.

Q. Yes, sir.

A. Which is more than the allowed limit. Of course, you wouldn't know that for a couple of months, but a couple of months after that it would be shut in for six times overproduction. And I've not attempted to get into that detail because that wasn't the purpose of this study.

Q. So the allowable in each succeeding month is still inflated by the amount which the 34-1 well

actually produced, when, in fact, the proration system would have shut that well in?

A. That's correct. That's correct. You would have had lower allowables if you would have had one of the wells shut in.

Q. And, if I understand correctly, if you had lower allowables, you might, in fact, have more nonmarginal wells than your study indicates?

A. Oh, perhaps. Let's see. Yeah, it's possible.

Q. Thank you.

A. Pull the allowable for the pool down.

Q. As part of the services that you performed for Enron in preparing for this case, did you do a study of this reservoir?

A. No.

Q. Do you have any information, other than the impression you gave us, of whether or not waste would be prevented if prorationing were instituted in this pool?

A. The only evidence that I've heard brought forward by anybody was your own witness, and like I say, I'm just simply unconvinced by that.

Q. Enron is pleased to hear that, Mr. Stamets.

A. I'm sure they are.

Q. You haven't studied waste and you've based the conclusion that a proration system is unreasonable on a system which is assigned inflated allowables and possibly inflated the number of marginal wells; is that correct?

A. Well, it's clear to me now that perhaps I should have gone a step further and analyzed that. Again, I don't think that what we're looking at here is something that is really significant in this pool, that you've got basically what are a bunch of wells that can't produce any more than they're currently producing; they are wells which contribute to the pool production, don't really have any additional capacity. And, in my view, that's what a marginal well is. I don't recall that the intent of the law is to reduce production in a pool unless it's necessary to prevent waste.

Q. And you haven't done a study to determine whether or not waste is occurring?

A. That's not part of the obligation on me or on Enron in this case. I believe that's an obligation that's on the Applicant, Parker. I don't believe that they've met that.

MR. PEARCE: I don't have anything further for Mr. Stamets. Thank you, Mr. Examiner.

HEARING EXAMINER: Mr. Carr?

FURTHER EXAMINATION

BY MR. CARR:

Q. Mr. Stamets, I believe you stated that you were not intending to duplicate the prorationing system?

A. Correct.

Q. You testified as part of your direct testimony that at the time pointed out in Mr. Pearce's cross-examination that the 34 No. 1 would have been shut in at that time, isn't that right?

A. That's correct.

Q. And you've also stated that if you had reduced the production in your study from that well, that it would have changed the allowable and perhaps changed the number of nonmarginal wells in the time period reflected in this study, is that correct?

A. That is correct.

Q. All that in mind, does that change your basic conclusion about the applicability of prorationing to this field?

A. No.

MR. CARR: I have nothing further.

HEARING EXAMINER: Thank you, Mr. Carr. Ms. Callahan?

MS. CALLAHAN: I have nothing.

HEARING EXAMINER: Mr. Stovall?

MR. STOVALL: Just one.

EXAMINATION

BY MR. STOVALL:

Q. Mr. Stamets, did you look at the actual seasonal adjustment factors used by the Division during this time period?

A. Well, there would not be any seasonal adjustment factors applicable to this pool because those were all individually calculated for each pool by the chief engineer based upon 10 months or 10 years of production history for those pools.

Q. And you didn't look at any average of the pools under the prorationing system or anything like that?

A. No, because they would jump all over the place.

MR. STOVALL: Okay.

HEARING EXAMINER: Are there any other questions of this witness? If not, you may be excused.

Mr. Carr, do you wish to recall any of your witnesses at this time?

MR. CARR: No, sir.

HEARING EXAMINER: Mr. Pearce?

MR. PEARCE: No, sir.

HEARING EXAMINER: I guess we're ready for closing remarks. Mr. Carr, I'll ask you to go first and Mr. Pearce, I'll let you finish up. Ms. Callahan, would you like to make any remarks?

MS. CALLAHAN: No, I'll pass.

MR. CARR: May it please the Examiner, we submit to you that Parker Drilling is before you today trying to use the regulatory system to address what is basically a contract problem. They entered a drilling contract and it didn't work out as they expected. They didn't get paid as fast as they thought, and they didn't have to reassign the interest to Enron.

What they want to do is come in and prorate a pool and limit production from the best well in the pool so that the other wells will produce more. And the way to do that is to come in and ask you to prorate the Pitchfork Ranch-Atoka Gas Pool, a pool which, just with the wells in that pool, they would have paid off the contractual obligations under the Enron-Parker Drilling contract.

And so we have a case for prorationing, the first one in many years, and it's important to look at what this Division's jurisdiction is in implementing

prorationing. The statute is clear. Section 72-16(B) starts off by noting that you may prorate but first you have a threshold of consideration and that is, there must be a showing that waste will occur, that you need to prorate to prevent waste.

Well, what does the record in this case actually show? It shows that on behalf of Enron there have been prudent operations, there's no issue as to that; that the wells are producing virtually at capacity. There are no complaints at all about the methods employed by Enron in the operation of this field.

So Parker needs a waste argument, and what do they come in with? A model of the reservoir where they show us the output, not the input figures, and they say, yes, if you prorate on straight acreage, you'll come up with 4.4 percent additional recovery with prorationing as opposed to continued operations without. And they rely on this model and, at the same time, their expert witness, Mr. Ausburn, tells you it has a range of error of five percent.

Their waste calculation, their waste argument, falls within the range of error in their model. They have not proven the threshold thing they must prove, that waste will occur. A mere suggestion

should not carry the day on that count and, therefore, prorationing of this pool is inappropriate.

Traditionally, the Commission looks at four factors in deciding whether or not to prorate a pool. None of them are present here. We have no nonstandard spacing unit, we have all wells at standard locations, there is no discrimination in this reservoir because of the fact that there are two purchasers where both purchasers are taking all the gas that the wells in the pools can make.

We don't have a situation where there is deliverability in excess of market demand. Here, everything produced can be sold. None of the four factors are there. Again, prorationing is unwarranted.

I submit to you further that straight acreage prorationing on this record simply cannot be approved by you. In the case Continental v. The Oil Conservation Commission, straight acreage prorationing was approved because no other method was practicable. That's what the Supreme Court found.

Practicability of other methods is the test for whether or not you can go forward with straight acreage because it doesn't take into account variations within the reservoir.

This question was again addressed in Grace v. The Oil Conservation Commission, and again the Court found that straight acreage was okay if other methods are not practicable.

Mr. Ausburn testified today that you can prorate based on deliverability, or gas in place, or recoverable reserves, that within the engineering discipline you could determine that reserves in the pool and what was under each tract, or the gas in place in the pool and the gas in place under each tract, all could be practicably determined.

Here, the tracts do have varying values and the values can be practicably determined, and under New Mexico law and on this record you cannot approve Parker's application. To do so, you violate the directive of the courts in Continental and in Grace.

This application must be denied. If there is a problem here because they happen to have wells offsetting the best well in the pool, which we all admit, if they had that problem, they have fashioned a remedy which is inappropriate, prorationing.

You can attack Mr. Stamets for not having exactly duplicated prorationing in his study, which he was never asked to do, but he has demonstrated that prorationing simply won't work. Over time there will

only be one nonmarginal well in the pool. The rest are marginal. They produce what they can.

If the balance of the market is distributed among the nonmarginal, there is only one, and except for the fact that the whole system is torqued because of the process you go through in implementing prorationing, the bottom line is ultimately prorationing really won't mean anything at all except a temporary reduction in production from the pool, out of the 34 No. 1 well, production that will be made up elsewhere, not from this pool, because every well in this pool is producing at capacity.

Precedent for this? Absolutely not. There is none. Can you make precedent in this case? You certainly can. You can set a precedent, and I would submit a terrible precedent, where prorationing is not a tool to prevent waste but it becoming only a tool to protect correlative rights.

You have a situation where if you're going to use it to protect against drainage and you take this argument that they are advancing to its logical conclusions, you won't be applying it in cases where you're looking at the best well in the pool. You'll have to start looking at the worst well in the pool and pulling everything down to it. Because when you

apply prorationing and try and use it in the context of correlative rights, that's where it logically takes you, and you penalize wells for one reason alone, that's because there are better wells, better for geologic and engineering reasons, and they're taking a regulatory system and applying it in an improper way.

Parker's drilling contract didn't work out. It didn't work out very well for Enron, either. They still have 85 percent of our working interest in each of these wells which we long ago thought we would have back. But to solve this situation, Parker proposes reformation of the prorationing system.

We simply submit that the oil and gas regulations of the State of New Mexico are not a contract they allowed for Parker Drilling Company, and that the application has to be denied.

HEARING EXAMINER: Thank you, Mr. Carr. Mr. Pearce?

MR. PEARCE: May it please the Examiner, Parker Drilling Company is an interest owner in six wells in the Pitchfork Ranch-Atoka Pool. Enron's witness testified on this record to the working interest held by Parker Drilling Company. We've got a working interest owner, nonoperator, who has filed an application with this Division to prorate a pool to

prevent waste. The only evidence before you is that failure to prorate this pool will cause waste.

Mr. Ausburn testified that in his professional, expert opinion, it is more likely than not that in fact waste will, in fact, be prevented, that the margin of error does not explain the consistent pattern of increased production from this pool if proration is instituted.

Section 70-2-16(C), "Whenever to prevent waste the total allowable of natural gas from gas wells producing from any pool in the State is fixed in an amount less than that which the pool could produce." Yes, as Mr. Stamets said, for a period of time, production will be reduced. That is precisely what the statute envisions to prevent waste.

The only evidence in this record is evidence that waste is going to occur if this pool is not prorated. Mr. Helms, the expert engineering witness for Enron, didn't know what the initial gas in place, under the 320 acres dedicated to the 34-1 well, was. Well, our engineer calculated it. He calculated about 2.4 bcf on numbers that essentially agreed with Mr. Helms' numbers. The cumulative production to date of the 34-1 well is 8 bcf in July.

They start out with 2.4 bcf under their

proration unit, they produce 8 bcf so far, and they're still going. And they're causing waste. Parker Drilling is an interest owner who wants to protect its correlative rights and wants to prevent waste in the pooling. That's what the Oil & Gas Act talks about doing.

Mr. Helms didn't know what the reserves were now. If you went back right now and, as an alternative basis for proration, you prorated this pool on the basis of original gas in place, you would have to plug the 34-1 well. It's more than three times the reserves it had available to it to begin with. Enough is enough. Waste is occurring. Other interest owners in this pool are being damaged. Proration on surface acreage basis, the traditional method, is available, and will help.

In Continental Oil, somebody was trying to go back in and change a proration system. That's not the situation we've got here. Is some other proration method possible? Maybe. Those calculations haven't been done. They've been done on surface-acreage basis. That system will prevent waste, will protect correlative rights better than they're presently being protected.

Those are the two hallmarks of Oil

Conservation Division authority. I submit to this record that the tests have, in fact, been met. This pool ought to be prorated to prevent waste. Thank you.

HEARING EXAMINER: Thank you, Mr. Pearce. Does anybody else have anything further in Case No. 9838?

I would like rough drafts from you, Mr. Pearce, and you, Mr. Carr. What would be a sufficient amount of time?

MR. CARR: 10 days.

MR. PEARCE: 10 days.

HEARING EXAMINER: 10 days from today. A week from Friday. January 12th is a Friday. Is that sufficient?

MR. PEARCE: Okay.

MR. CARR: That's sufficient.

HEARING EXAMINER: Thank you. In that case, I'll take this case under advisement pending receipt of the rough draft orders. Let's take about a 15-minute recess and then we'll finish up with the two remaining cases.

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Carla Diane Rodriguez Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL January 9, 1990.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ
CSR No. 91

My commission expires: May 25, 1991

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9838, heard by me on 27 December 1989.

Examiner
Oil Conservation Division