NEW MEXICO OIL CONSERVATION COMMISSION

STATE LAND OFFICE BUILDING

STATE OF NEW MEXICO

CASE NO. 10526

IN THE MATTER OF:

The Oil Conservation Division is Calling a Hearing on its Own Motion to Accept Nominations and Other Evidence and Information to Assist in Determining October 1992 through March 1993 Gas Allowables for the Prorated Gas Pools in New Mexico.

BEFORE:

CHAIRMAN WILLIAM LEMAY

COMMISSIONER GARY CARLSON

COMMISSIONER BILL WEISS

FLORENE DAVIDSON, Senior Staff Specialist

State Land Office Building

August 13, 1992

REPORTED BY:

CARLA DIANE RODRIGUEZ
Certified Shorthand Reporter
for the State of New Mexico

ORIGINAL

A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

ROBERT G. STOVALL, ESQ.
General Counsel
State Land Office Building
Santa Fe, New Mexico 87504

CHAIRMAN LEMAY: The first case I'll call is Case 10526. That's the application--

MR. STOVALL: Excuse me. I'm back from vacation and I've remembered what I do here.

CHAIRMAN LEMAY: It's the last case on the docket.

MR. STOVALL: The Oil Conservation Division is calling a hearing on its own motion to accept nominations and other evidence and information to assist in determining October 1992 through March 1993 gas allowables for prorated gas pools in New Mexico.

CHAIRMAN LEMAY: I think at the request of the Division this case is being extended or continued for two weeks, and that makes it the 27th of August, which will still give us time to get the order out.

Are there any objections to extension of the case, or concurrence?

That case will then be extended or continued until the 27th of August at 9:00, here in Morgan Hall.

Hopefully you've all got the information that the Division sent out by now. If not, please contact us and we can fax that

information to you.

(And the proceedings concluded.)

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 Commission 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 August 24, 1992.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ, RPR
CSR No. 4

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date AUGUST 27, 1992 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Maurice Trimmer	Byram	SF
W. T. Kellahin	Kellahin & Kellahin	Santa Fe
Alan Bohling	Chevron U.S.A.	Midland, TX
Brian Hazzer	Chevron U.S.A	Midland, TX
Robert Green	Chevron U.S.A.	Midland, TX
Mark Corley	Chevron USA	Midland TX
William F. Carr	Campbell, Carr, Berge & Sheridan	Santa Fe
John P. Fuller	Marathon Oil Co.	Midland, TX
Ray Folze	MARATHON Oil CO.	Midland, TX.
Charles A Gray	Oryx Energy Co	Dallas, TX
TOM ADAMS	Oryx Energy Co	Dallas, TX
Rick Hall	ORYX ENERGY Co	Dallas
KRIS RAGHAVAN	ORYX ENERGY Co.	DALLAS
Kirk Czirr	Phillips	Farmington
Craig Van Horn	Unocal	Farmington
KENT BEERS	MERIDIAN	FARMINGTON
Tommy Nusz	MERIDIAN	FARMINGTON
JB FRAZER	meridian	Farmington

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date AUGUST 27, 1992 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Bill Hawkins	Amoco	Denver
TR Moore	Phillips	Farmington
Tom Lowry	Marathon	Midland
Vic Lyon	Gas Co/NM	Santa Fe
Ward Camp	GCNM	Albuquerque
Tom Olle	MOI	MIDLAND
Kevin M. Orill	MOI	MIDLAND
Tom O'Donnell	Meridian	MIDLAND

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A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

ROBERT G. STOVALL, ESQ.
General Counsel
Post Office Box 2088
State Land Office Building
Santa Fe, New Mexico 87504-2088

FOR AMOCO PRODUCTION COMPANY, CHEVRON U.S.A., INC., and UNION OIL COMPANY OF CALIFORNIA:

CAMPBELL, CARR, BERGE & SHERIDAN, P.C.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: **WILLIAM F. CARR, ESQ.**

FOR MERIDIAN OIL, INC., (Midland & Farmington offices), PHILLIPS PETROLEUM, INC., MARATHON OIL COMPANY and ORYX ENERGY:

KELLAHIN & KELLAHIN
Post Office Box 2265
Santa Fe, New Mexico 87504-2265
BY: **W. THOMAS KELLAHIN, ESQ.**

FOR GAS COMPANY OF NEW MEXICO:

KELEHER & McLEOD
Post Office Drawer AA
Albuquerque, New Mexico 87103
BY: **H. WARD CAMP, ESQ.**

I N D E X

CHAIRMAN LEMAY: Good morning. This is the Oil Conservation Commission. My name is Bill LeMay, Chairman. On my left is Commissioner Bill Weiss. On my right, Commissioner Gary Carlson representing the Commissioner of Public Lands.

For those of you that think these are microphones up here that project your voice, that's not what that is. That's for the court reporter, so that we can get a recording of your testimony. So, be sure and speak up over there, there's no magnification of your testimony.

We shall start by calling the proration case, Case No. 10526. The Oil Conservation Division is calling this hearing on its own motion to accept nominations and other evidence and information to assist in determining October 1992 through March 1993 gas allowables for prorated fields in New Mexico.

If I can have appearances in Case 10526.

MR. STOVALL: Robert G. Stovall of Santa Fe on behalf of the Division. I have two witnesses.

CHAIRMAN LEMAY: Okay. Additional appearances? Mr. Carr?

MR. CARR: May it please the Commission, my name is William F. Carr of the Santa Fe law firm Campbell, Carr, Berge & Sheridan. I would like to enter our appearance on behalf of Amoco Production Company, Chevron, U.S.A., Inc., and Union Oil Company of California.

I will present one witness for Amoco. He will present testimony concerning allowables in the San Juan Basin. I will present one witness for Chevron who will be presenting testimony concerning the Indian Basin Upper Penn Gas Pool, and Union Oil Company will make a statement.

CHAIRMAN LEMAY: Thank you. Mr. Kellahin.

MR. KELLAHIN: Mr. Chairman, I'm Tom Kellahin of the Santa Fe law firm of Kellahin & Kellahin. I'm appearing today on behalf of the following clients: For Meridian Oil, Inc., out of their Midland office, they have a presentation on the Justis Gas pool, and I have one witness.

For Meridian Oil, Inc., based in Farmington, I have one witness to make presentations on the Basin Dakota, the

Blanco-Mesaverde and then the Blanco Pictured Cliffs South.

I have one witness for Phillips Petroleum Company for Farmington, for the Basin Dakota pool.

On behalf of Marathon Oil Company, in association with Mr. Thomas Lowry, he and I are presenting two cases for that company, one for the Blinebry pool and the other one for the Indian Basin Upper Penn. We have two witnesses for each of those two cases.

And then I'm presenting an engineering witness for Oryx Energy for the Indian Basin Upper Penn pool.

CHAIRMAN LEMAY: Thank you. Additional appearances?

MR. CAMP: Ward Camp of Keleher and McCloud in Albuquerque, appearing on behalf of the Gas Company of New Mexico. I have one witness.

CHAIRMAN LEMAY: Thank you, Mr. Camp. Additional witnesses, presentations in the allowable hearing?

Will those of you who will be giving testimony please stand and raise your right

hand.

[And all witnesses were duly sworn.]

CHAIRMAN LEMAY: I might state, also, that we have this room until this morning. We will have to go upstairs in the OCD conference room in the afternoon because it's booked. So after lunch, if we're still continuing, we'll be meeting up there.

Also, we're going to change around this morning and have the San Juan Basin hearings first, since I understand the southeast may take a little longer.

Okay. We'll start with Mr. Stovall.

MR. STOVALL: Call Mr. Ron Merrett.

RONALD H. MERRETT

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. STOVALL:

A. Mr. Chairman, my testimony this morning is brief.

Q. Might I ask the question before you answer it?

A. Hurry up.

Q. Would you please state your name.

A. My name is Ronald H. Merrett.

Q. And your place of residence?

A. Albuquerque, New Mexico.

Q. How are you employed, Mr. Merrett?

A. I am the director of the Office of Interstate Gas Markets, the Natural Gas Marketing Bureau, and I'm also the director of Natural Gas Programs.

Q. Would you state the purpose of your brief testimony this morning?

A. My brief testimony this morning is to give an overview of natural gas market conditions over the period covered by the hearing; the proration period, that is.

Q. Have you prepared an exhibit which will help you to give that explanation in summary?

A. Yes. My exhibit is on the screen and the Commission members have black and white copies.

Q. For the record, let me state that I've marked the copies as Exhibit No. 4. We have not produced enough copies for everybody in attendance, but if you would wish to have copies after the hearing, we can make those copies available.

Again, just for the record so everybody knows what it is, just identify the title of your exhibit.

A. The exhibit is New Mexico Natural Gas Production from January of 89 through June of 1992, by month.

Q. By month you said? I'm sorry.

A. Yes.

Q. Would you please tell the Commission what this exhibit shows in relation to and how it is useful in their determination of natural gas markets?

A. The purpose of this exhibit, and I apologize to the audience for it not being more visible, but the purpose of this exhibit is just generally to show the level of gas production in the state over the past three and a half years, and also to show the seasonal variation in demand for gas from the state.

Q. Are there any general trends that you can identify that will be useful?

A. Typically, the trends are that the demand is higher from New Mexico in the winter, when weather across the nation is cold, and are lower in the spring and the fall, and there's

sometimes peaking in the summer which reflects the summer cooling season.

Q. Is there anything further you would like to add with respect to this exhibit?

A. Yes, there is. The broken green line at the top of the chart shows a rather different trend than it has in the previous three years.

Q. That green line represents what year?

A. That green line is 1992. The trend is significantly different because whereas in 1989, which is the blue line at the bottom, there was a declining production from January through June. In 1992, there was increasing production from February through May. This is clearly a different trend than is seen in the three previous years and is clearly not a reflection of weather, as you would assume in the three previous years shown on that chart.

Q. Are you prepared to offer any explanation for that, or are you just simply showing it as information?

A. I'll offer an explanation which I think is significant, because what it says is that the gas production from New Mexico is, this year, seems to be atypical. It is not reflective of

seasonal trends that we have seen in previous years. There are some reasons which we believe account for this. One of them is the rather different weather pattern in the spring of this year, it was slightly warmer than in some parts of the country and slightly colder than others.

Where it was colder, we think the utilities were not able to put gas into storage at that time because they had colder temperatures to deal with, particularly in California. Then, as the year went along, as the spring went along, the demand stayed high and the utilities started putting gas back into storage but were holding off because the price was higher than they had expected.

As a result, you have an increasing trend through the year. That's one factor.

Another factor is that the coal seam gas wells in the San Juan Basin which were drilled last year or earlier this year have now been connected, many of them, and those wells are producing, and there seems to be a market for the gas. So, there is a different trend this year. The seasonal trend is different partly due to weather patterns and partly due to market

Let me say that at one time there was a restriction on gas deliveries out of the San Juan Basin, but as of about the spring of 1992, about April, the restrictions disappeared totally. However, there appears to have been no significant increase in conventional gas production since that time, on a month by month comparison with previous years.

Q. Summarize for me again the reasons you have for seeing such a difference in the most recent trends in increased production over what it looks to be--late 91 is it?

A. Yes. It's almost--it's hard to say specifically, but it's largely due to an increase in production of coal seam gas.

MR. KELLAHIN: Thank you, Mr. Chairman.

CHAIRMAN LEMAY: Additional questions of the witness? Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. How does price influence this increase in the rates?

A. Price influences it a great deal. If the prices are high, the production goes up.

BY MR. KELLAHIN:

Q. Good morning, Mr. Merrett. Does your bureau have the ability to analyze trends by examining only the prorated gas pools of New Mexico?

A. We do not.

Q. Do you have any opinions with regards to the market demand for any individual prorated pool in New Mexico?

A. No.

Q. When you look at these overall trends, then, these trends represent gas production from nonprorated and prorated pools, both southeastern and northwestern New Mexico?

A. That is correct.

Q. Have you examined what the impact has been, if any, on the additional capacity added to the pipeline's ability to move gas out of the San Juan Basin?

A. From a brief examination of the production for coal seam gas and what we would otherwise term conventional production, there appears to be no significant change brought about by the addition of the new pipeline capacity out of the San Juan Basin.

not prepared to make a prediction?

A. I'm not prepared to make a firm prediction, no.

Q. Anything further you wish to add to your testimony?

A. No. That's all I have in the way of direct comments.

Q. What's the source of information to prepare this? Are these official records you used to prepare your production figures?

A. Yes. The lines on this chart are derived from the production numbers which are produced by the Oil Conservation Division every month.

Q. And this chart was prepared under your supervision?

A. Yes, it was.

MR. STOVALL: I have nothing further of Mr. Merrett, and I offer Division's Exhibit No. 4 for the record.

CHAIRMAN LEMAY: Without objection, Exhibit 4 will be entered into the record.

Questions of Mr. Merrett? Mr. Kellahin?

EXAMINATION

conditions.

While we're not well equipped to forecast, I would hazard a guess that this year's total production will be 10 percent at least higher than production for the state in 1991.

Q. This change of trend that 1992 has shown so far, is there any information that can lead you to make any sort of predictions about a long-term change in the trend, or is this too new?

A. The estimating natural gas supply and demand is somewhat subjective. In my view, it's not really a highly developed science. There is clearly evidence that the large surface of natural gas deliverability in the nation or in the continent, perhaps, is being reduced. Some say that the so-called gas bottom has disappeared. Others will not be so bold, but the fact is that there is less surface of deliverability over demand, and we can look to some tightness in supply over the coming winter.

Q. In other words, at this point you're not really willing to predict that this trend will continue for an extended period of time? Am I understanding you correctly, or are you just

It's very straightforward. And prices have been higher in 1992 than they were the corresponding period in 90 or 91 by about 50 cents an Mcf, actually. So price is a considerable influence.

Q. This chart, then, doesn't reflect New Mexico's ability to produce low cost gas? Actually, it costs more now or at least to buy that gas?

A. We don't take into consideration in developing this exhibit the cost of production.

COMMISSIONER WEISS: Thank you.

CHAIRMAN LEMAY: Mr. Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Along that same line, Ron, has the price held steady during July and August?

A. That's hard to answer. Prices have been fairly stable in the $1.80, $1.90 kind of area into the pipeline, and they fluctuate from time to time, from week to week and from month to month, but they have been fairly steady, yes.

Q. If I remember correctly, August of last year was when the wellhead price dipped somewhere down below a dollar. So if it's still $1.80 now, we're looking at substantially higher prices.

My point is, we could probably expect this line, if we were to extend it for at least the next couple of months, to stay relatively high compared to last year?

A. That's our view, yes.

Q. Have you done graphs? If I remember correctly you used to have graphs showing increases in coal seam production in southeast versus northwest?

A. Yes, we have those. I didn't bring them today but we do have those graphs available.

COMMISSIONER CARLSON: That's all.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Mr. Merrett, two questions. You made the statement that there is still a surplus of deliverability over demand. Is that true for markets in which New Mexico competes?

A. The surface of deliverability in New Mexico was estimated at something over a Bcf when it was done about a year and a half ago, I think. There is no--there is probably no significant change in that excessive deliverability over demand.

There is still high demand in New Mexico's traditional markets and we are, presumably, not delivering the additional volumes because of price, price competition from Canada and other places.

Q. But is it fair to stay that when you stated a surplus of deliverability over demand, that that's true nationwide and also in markets in which New Mexico competes?

A. Well, that's the so-called gas bubble, and it's hard to be specific as to New Mexico with regard to the gas bubble. This is a continental commodity, and the supply is throughout the continent and the demand is throughout the continent, so we believe there is still a surface of deliverability within the nation and we believe that that will not change for some while yet.

Q. So when you're speaking of market demand, does that demand pull from pools now or pull from operators? pull from states? Where does that demand pull from?

A. It's my understanding that most of the companies sell gas. They don't sell gas from a pool or from a well, they sell gas from their gas

supply sources. So the individual companies who are selling gas, in many cases do not differentiate between one pool and another.

CHAIRMAN LEMAY: Thank you. Additional questions of the witness? Mr. Kellahin?

MR. KELLAHIN: A couple of follow-up questions, Mr. Chairman.

FURTHER EXAMINATION

BY MR. KELLAHIN:

Q. With regards to any individual prorated pool in New Mexico, Mr. Merrett, can you tell us whether the total pool deliverability for any of those individual pools is greater than or less than the total market demand for production from those individual pools?

A. Well, that's--I'm not quite sure how to answer that question. If there is deliverability from a pool which is in excess of the demand from that pool, then that's part of the gas problem.

Q. My question is, can you identify any of the individual prorated pools in New Mexico in which that occurrence exists?

A. I personally am not the expert in that area. We have that information in the division, however, and it is available. In fact, our next

witness may be able to comment on that better than me.

Q. I was curious about your answer to the Chairman when you said the total state deliverability exceeded the total demand for production from the State of New Mexico.

A. Well, that's a fact. We have a study which it may have been in evidence before the Commission before, I don't know, but we have a study which demonstrates that very clearly.

Q. I was curious whether you can tell us, taking that study, you can identify individual prorated pools that are the subject of this hearing and determine whether, in your opinion, the market demand from production from any of those prorated pools is greater than or less than the pool deliverability?

A. In theory I think the answer to that is yes, but you cannot say what the demand is for any gas without knowing what price you're talking about. So that's a reservation I'll make.

MR. KELLAHIN: Thank you.

CHAIRMAN LEMAY: I've got to follow that up, Mr. Merrett.

FURTHER EXAMINATION

BY CHAIRMAN LEMAY:

Q. I think Counsel stated there was market demand from a pool, stating that as a fact, but I thought your answer to my previous question was that market demand is drawn from operators, not necessarily from pools?

A. Yes, if he said that, I didn't pick it up.

CHAIRMAN LEMAY: Was that correct, Counselor? Was that the way you stated your question? It's in the record, I think.

MR. KELLAHIN: I'm sorry. What was your question?

CHAIRMAN LEMAY: I was just clarifying your question. I thought you started out with a supposition that there was market demand from prorated pools, and then went on as accepting that as a factual lead-in to your question?

MR. KELLAHIN: If that is how you understood it, then I have miscommunicated with Mr. Chairman. I intended to ask the witness whether or not he could quantify market demand and apply that to an individual prorated pool, and compare that volume of gas to what would be the total deliverability of gas from that

prorated pool. Is that a different question?

CHAIRMAN LEMAY: Well, I interpreted it differently.

MR. KELLAHIN: Perhaps I should try again.

FURTHER EXAMINATION

BY MR. KELLAHIN:

Q. What I want to find out, Mr. Merrett, is that when we look at any individual prorated pool in New Mexico, I want to know if you have an opinion, for example, for the Indian Basin Upper Penn pool, what is the forecasted market demand for production from that pool for the next proration period, and how that compares to the total deliverability of the gas wells that produce gas from that pool?

A. Well, I would rather not talk about any specific pool since I don't have the study in front of me of deliverability and I don't recall whether any particular pool has an excessive deliverability or not.

What I do know is that for the state as a whole, for all pools, including prorated or nonprorated pools, there's a service of deliverability over current production and it is

not possible for me to tell you whether there is a demand for gas from any one pool or any other pool. The demand is for gas available to the corporations and to the operators who operate those pools.

MR. KELLAHIN: Thank you.

CHAIRMAN LEMAY: Thank you for the clarification. Additional questions of the witness? If not, he may be excused. Thank you.

Mr. Stovall, you may call your next witness.

MR. STOVALL: I call Mr. Van Ryan.

LARRY VAN RYAN

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. STOVALL:

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

A. My name is Larry Van Ryan and I reside in Santa Fe, New Mexico.

Q. How are you employed, Mr. Van Ryan?

A. I'm the Chief Petroleum Engineer for the Oil Conservation Division.

Q. Within that position, do you have

responsibility of any sort with respect to gas proration?

A. Yes. That's one of the areas of my responsibility.

Q. Would you describe that responsibility briefly for the Commission so they can understand your role in the process?

A. Under Order R-8170-H, the new proration system was set out, and under the guidelines of that system, it's my responsibility to help determine the historical production from pools based on different proration periods and make recommendations as far as what historical production has been.

Q. What is the purpose of your testimony here today?

A. My testimony here today is to inform people on how we derive at the figures for the historical production, and to answer any questions that may come from that.

Q. Are you also here to make some preliminary recommendations to the Commission for allowables for the prorated gas pools for the coming proration period, starting October 1st?

A. Yes. Our recommendations, as I said,

are based on historical production from the same period a year ago, and as per the order number I cited earlier, that's the method that we're to use to determine the proration for the prorated pools.

MR. STOVALL: I would offer Mr. Van Ryan as an expert petroleum engineer and as the Division's expert in gas proration.

CHAIRMAN LEMAY: His qualifications are accepted.

Q. Mr. Van Ryan, you have stated that you are prepared to present data with respect to historical productions from the pools and to make some preliminary recommendations regarding allowables for the coming period. How are those recommendations prepared?

A. We look at historical production and, for this particular period of time, we have converted over from using the C-111 production information which was provided by the transporters of natural gas, to the C-115 data which is information provided by the individual producers.

Q. Let me stop you for a moment and ask you to explain why that transition was made and

what has been accomplished by going to C-115s?

A. We found substantial errors in the C-111, in that the transporters were not able to give us accurate volumes on a per well basis.

Because of that, we reviewed the C-115s which were the operator's input, and we found those to be much more accurate and reliable. So, starting with the October of 1991 historical data we put in the C-115 volumes, and we've come up with what we believe to be a much more accurate scenario of production from October of 91 through March of 92.

Q. Is it your opinion that the reason for the change and the reduced reliability of C-111 data from transporters is that they are no longer actually marketing the gas, they're merely gathering it and moving it under contract for whoever they're contracted with?

A. That has something to do with it. The other problem is that a change in the gas business is many of the pipeline companies use a central delivery point or central point delivery, and they gather gas from a number of wells and only have one meter. They rely on the operators, then, to provide them with an allocation back on

a per well basis.

Due to the time frame of C-111s being filed, it's not always possible to get that in and I assume that they were sending this information in before they had the full information, and therefore we had unreliable data.

Q. And the C-115 data, you say, comes from operators?

A. It comes from the operator. It's their report of what happens in actual production from the field, and we felt that was the most reliable source we had.

Q. That's on a per well basis?

A. Yes, it is.

Q. As far as the actual presentation today, is your information presented in the form of exhibits?

A. Yes, we prepared exhibits. The first two, Exhibits 1 and 2, are what we sent out in the mailing and notification of the Commission hearing. I would like to point out at this time that they're unchanged as of this point.

Q. These exhibits, you referred to Exhibits 1 and 2, and I have additional copies.

For those who don't need them now, I'll put them on the corner of the table.

These Exhibits 1 and 2 are separated into the two Basins of New Mexico, is that correct?

A. Yes. Exhibit 1 refers to the southeast part of the state, and Exhibit No. 2 is the northwest part of the state.

Q. Because the northwest portion of the state has fewer pools and also because the exhibit at this time is a little more accurate, let's turn to that first and discuss your recommendations with respect to the northwest and the historical basis for that.

A. Okay. Exhibit No. 2 includes the four prorated pools in the San Juan Basin area. All the figures on this sheet are exactly what we derived from our historical data, as I mentioned earlier, and reflect what we show as the C-115 production for the pools under Row No. 1.

It also shows, as we have recorded, what the number of marginal acres factors are, and with the calculations for our F1 and F2 factored. They're done just exactly on the data as we have it historically. There have been no

corrections or adjustments made to this.

Q. As you go down from Line 1 to Line 10, it's really just a series of mathematical calculations based on the information on Line 1, is that correct?

A. Yes, that's correct.

Q. So Line 1 is the historical production data?

A. For the total pool.

Q. And we'll go back to Lines 2 and 3 in a minute, but Line 4 simply is the sum of Lines 1 through 3, is that correct?

A. Yes, and in this case there have been no adjustments made to them.

Q. You've identified the marginal pool allowable which is gas produced from marginal wells?

A. That's correct.

Q. Subtracted that?

A. Right.

Q. And you come up with the nonmarginal allowable for all of the nonmarginal wells in the pool, is that correct?

A. That's correct.

Q. You go on then and perform--now, again,

in the northwest it's not simply a straight line relationship of marginal or nonmarginal acreage factors to allowables, is that correct?

A. No. In the northwest we prorate on acreage and on the deliverability of the wells.

Q. All of the formulas that are shown are not shown here just to show exactly how those figures were calculated? You would know the formulas and then come in and know the percentages to each factor to arrive at the numbers on the last four lines?

A. Yes, that's correct.

Q. With respect to Lines 2 and 3, total nominations, what type of information would go into that line?

A. We asked the producers and the pipelines and anybody that would have information about additional gas market to notify us of what they had as far as nominations. We would take those in prior to this hearing but that's also, as I see it, a good part of what this hearing is about, is to look at what people have as far as information about nominations for gas production.

Q. And Line 3, adjustments, what is the purpose of that line?

A. Those are left in there to adjust it as deemed necessary, to come up with the correct F1 and F2 factors. Those, again, are adjustments that could be derived from this. If we don't receive the nominations, then I would see those adjustments as being derived from this hearing, what the Commission may come up with.

Q. In other words, nominations could cause some adjustments to be made or there could be other information which could come out today that would cause adjustments to be made?

A. Exactly.

Q. Those adjustments, then, would possibly raise or lower the figures that currently exist on Line 4?

A. That's correct.

Q. And then all of the mathematical calculations below that--and they are simply mathematical calculations? There's no judgment or discretion of the Commission once they reach those lines, is that correct?

A. No. These are formulas that are spelled out in the pool rules, and those are applied.

Q. So any further testimony in this case

with respect to numbers should really only look at Lines 2 and 3 and offer some information going to those lines?

A. That's as I see it.

Q. When you get down to Lines 9 and 10, are those the F1 and F2 factors that are used to make the mathematical calculation to assign an allowable to any well?

A. Yes. Line 9 is the F1 factor which is the acreage allocation, and Line 10 is the F2 factor, which is the deliverability allocation.

Q. Are you recommending to the Division at this time that the figures on Exhibit 2 be adopted, subject to any additional information which might come out as the result of this hearing, as the allowables for the prorated gas pools in Northwest New Mexico?

A. Yes. These are my recommendations based on, as we stated, the historical data, and we would look for adjustments or and information from this hearing to revise those, if needed.

Q. Let's turn now to Exhibit No. 1. First, just in general terms, describe what that exhibit is.

A. Exhibit No. 1 is very similar to

Exhibit 2. We have used historical data to arrive at the average monthly sales of gas for each of the prorated pools, which is on Line 1. It follows the same scenario, except that in the southeast part of the state we only prorate based on acreage, and that's why we have only one monthly acreage allocation factor and we do not have a deliverability factor for the southeast part of the state.

Q. This is a much more straightforward calculation, is that correct, once you hit Line 4, and then you apply the numbers, the mathematical formulas, and it really doesn't require percentage allocations or anything like that?

A. Yes. And under Line 8, in parenthesis, it shows how that's done. This is just Line 6, which is a monthly nonmarginal pool allowable, divided by Line 7, which are the number of nonmarginal acreage factors.

Q. Let's go into the specifics, because you are prepared to recommend some changes to this schedule as it is shown, is that correct?

A. Yes. There have been changes since we mailed this out. We didn't want to change the

whole exhibit as we did last time, but we do have, in Exhibit No. 3, changes to two pools, and those are the Atoka Penn. The change there is on Line 7 where we determined that we have only one nonmarginal acreage factor. That changed another line, which was the monthly marginal pool allowable, and that would be as shown on Exhibit 3, that would be 81,189 instead of the 67,001, as shown or written on the Exhibit 1.

Q. So, for the Atoka Penn, Lines 1 and 4 are the same, but because the number of nonmarginal acreage factors has changed, according to your calculations, all the other line numbers are changed?

A. Yes, that's correct. So, the final item we're trying to arrive at, being Line 8 in this case, would be 19,414 Mcf per month per prorated pool--well, or proration unit.

Q. And that applies to a single, nonmarginal proration unit, is that correct?

A. That's correct.

Q. With an acreage factor of 1?

A. Of 1.

Q. Let's move over to the Buffalo Valley Penn. Do you have any changes in the Buffalo

Valley Penn which are not shown on any of your exhibits?

A. Yes. We did not get this on Exhibit 3, but as we reviewed the Buffalo Valley Penn Pool, we determined there are no nonmarginal acreage factors at this time in that pool, so that would mean Line 7 should be zero and Line 8 likewise would be zero in this case, or we do not have an F1 factor.

Q. And Line 5 goes up to 276,371, is that correct?

A. Yes.

Q. All nonmarginals?

A. Yes.

Q. I mean, all marginals?

A. Yes.

Q. Now, this table also shows the Burton Flat Morrow pool. Is this hearing applicable to that pool?

A. No, it's not. That pool was de-prorated, but in our computer system we have not gotten it dropped. That was de-prorated some time ago.

Q. That's why there's no figure shown for that pool?

A. That's correct.

Q. Let's move across to the Indian Basin Upper Penn pool and discuss any changes from the schedule on Exhibit 1, as reflected in the change table on Exhibit 3?

A. Yes, we went back and found some errors in our C-115s which changed the total volume of production, the average production for the Indian Basin Upper Penn pool. We extrapolated those down through the rest of the system. We did not find any change in the nonmarginal acreage factors, but because the increased production, which is also reflected in our nonmarginal production, we come up with a higher F1 factor. It will be 178,372, as opposed to the 173,328 originally.

Q. Again, that's as a result, in this case, of making changes to the original line No. 1 average pool sales rather than changing acreage factors or anything of that nature, is that correct?

A. Yes. We put it together, and when our system printed out the average production, we went back and looked at the C-115s and we found some obvious errors at that time, and we were

able to trace down those errors and we arrived at this higher volume.

Q. Now, with respect to Lines 2 and 3 on this exhibit, there utilization was exactly the same as it was on Exhibit No. 2 for the northwest pools, is that correct?

A. Yes, it's identical for the southeast part of the state as for the northwest at this point.

Q. I need to go back and briefly discuss two pools, the Buffalo Valley Penn and the Indian Basin Morrow South. It appears that with the correction for Buffalo Valley, there's actually no entry for Lines 6, 7 and 8. What's the significance of that?

A. This would be very similar to the Buffalo Valley Penn. We have no nonmarginal acreage factors in that pool.

Q. We're talking about both pools, right? Indian Basin and Buffalo Valley?

A. Yes, but in particular at this point, as you address this Indian Basin Morrow, we have determined there are zero nonmarginal acreage factors and therefore we have no wells to be prorated.

Q. In effect, by act of, I guess declining production, these pools, for all practical purposes, have de-prorated themselves? Is that what they're doing, at least for this period?

A. A review of the figures shows that that probably is true, but there are some other factors that have entered into it, and it may be that due to some problems in our old system we established too high of an F1 factor in the past. With that higher F1 factor, it simply caused all the wells to be de-prorated.

This is due to the same problem that we found in the Buffalo Valley Penn, where we determined that we had zero nonmarginal acreage factors. We were showing some production that was not correct, and this is another reason that we changed from the C-111s to the C-115 forms, to get more accurate data.

Q. Do you have any specific recommendations or suggestions, perhaps, to the Commission, with respect to how those two pools should be regulated under the proration system? Should there be some sort of an allowable set for pools to give you guidance as to where they stand, or what's happening there?

A. I would suggest that we do set a minimum allowable in the two pools.

Q. Minimum or maximum? Minimum would imply that they can produce up to that, guaranteed that the allowable won't be below. By maximum, I mean that would be the allowable above which they should not produce, subject to the rules, of course, of overproduction.

A. Okay. In that case we could say it would be a maximum allowable, and I would suggest for the Buffalo Valley Penn that that be somewhere in the order of a,000 Mcf a day, which would make the F1 around 30,000.

In the Indian Basin Morrow South, probably that factor should be up a little higher than that, probably in the order of 1,200 Mcf a day. And that, looking at historical production for this same period of time, will let most of the wells produce without being prorated, but it would give us a chance to still track these pools and these wells and see what the capability was.

It would also give the operators in there an opportunity to do additional work. It wouldn't hamper their--it wouldn't knock away their incentive to do additional work in the

pools.

Q. If I understand you correctly, you're not suggesting that these pools be taken out of the system, but rather an allowable be established for those pools based upon some less-scientific, less-calculated, historical evaluation?

A. Exactly. I think we still need to track the pools because, as I said, some of the reasons that these show zero factors and are down to this point may be errors that occurred in the past. I think we ought to track them for a while. It may be something that these pools should be de-prorated.

Q. And the allowable you would recommend is one that would be high enough to encourage continued operation, development, reworking, whatever the case, you're saying?

A. Yes.

Q. If you can get the production back up, we want to let you produce it?

A. That's correct.

Q. We're not going to abandon proration completely in these pools?

A. Not at this time.

Q. Do you have any other comments you would like to make with respect to the Division's exhibits or recommendations?

A. The only comment is that I feel we've got a much better system now that we've gone to the C-115s. I would like to point out that now we don't have a third party responsible for reporting production which affects the producers.

At this point we're asking the producers to present the information, so our results here rely exactly on what the producers report to us. So, if they have a problem with the system, they are the source of the information.

Q. In anticipation of questions which I'm sure Mr. Kellahin will want to explore further with you, have you made any examination of production trends and levels from the prorated pools, compared to total statewide production trends as shown by Mr. Merrett this morning?

A. I have looked at the northwest part of the state and the information I have from the four prorated pools up there shows about the same situation as he shows.

In April and May of this year, as opposed to a year ago, our production from the four prorated pools was up as high as 25 to 40 percent, depending on the pool, over a year ago, so we have seen quite an increase in production in April and May of this year.

In the southeast part of the state, we have also not done it on a detailed basis because of all the pools, but we have seen substantially higher volumes being produced in the southeast part of the state.

Q. Are you prepared to express an opinion as to whether the prorated pools are being denied access to the opportunity to produce, as a result of proration, being unable to compete for market, in your opinion?

A. I don't think they're unable to complete. The price is the same, and the only restriction may be that we don't allow them to produce unrestricted. I don't think that pulls them out of the market necessarily. We're here to determine what market demand is, and that's what we're trying to find out.

Q. We're looking at market demand on a pool-specific basis, as opposed to a statewide

basis, as Mr. Merrett testified?

A. Yes, that's correct.

Q. And, of course, the sticky issue always is price, and that does affect market demand as Mr. Merrett testified?

A. I would believe it does. If it's a nickel an Mcf, there's one market, and if it's $5 an Mcf, there's another market.

Q. Do you have anything further you wish to add at this point?

A. No, I believe that's it.

MR. STOVALL: I will turn you over to the wolves, Mr. Van Ryan.

CHAIRMAN LEMAY: Questions of Mr. Van Ryan?

MR. KELLAHIN: I have questions. I brought my wolf with me.

CHAIRMAN LEMAY: Do you want to howl for Mr. Kellahin, Mr. Carr?

EXAMINATION

BY MR. KELLAHIN:

Q. Good morning, Mr. Van Ryan.

A. Good morning, Tom.

Q. In providing information to the industry, the Division prepared a spreadsheet

showing, over time, the production reported to the Division, and you provided that to us. Do you have one of those?

A. I have a copy of that with me, yes. You're talking about what was attached with the mail-out on notification?

Q. Yes, sir. It was attached to the docket sheet. There was a mail-out which had a comparison of monthly averages, and it went back for a couple of seasons, and it was done for each of the prorated pools.

A. Yes, I have a copy of that.

Q. For the purposes of my questions, I would like to examine with you the Buffalo Valley Penn pool. The information on Exhibit 1 of today's hearing, and identified as the spreadsheet for the southeastern New Mexico pools, if you look at Buffalo Valley, and go down to Line 4, it says monthly pool allowable and there's 276,000 plus?

A. Yes.

Q. Does that column come from your tabulation of the sales information received from the C-115 for the operators for the period of October 91 through March of 92?

A. Yes.

Q. When you factor that in, the actual production as reported on those numbers, does that fact cause the allowables to be set in such a way that none of the nonmarginal wells are restricted?

MR. STOVALL: Clarify that. I think he has stated that with the adjustments there are no nonmarginal wells in the pool.

Q. That's why I'm trying to understand how he got to no nonmarginal wells in that pool.

A. Well, none of the wells would produce what we had established in the past as the F1 factor or their allowable.

Q. If you're using the actual production, the 276,000, will that run through the calculation so that there are no nonmarginal wells in the pool?

A. In this particular case it did. You can't just use the flat factor 276,000. You have to look back at the wells and how they would be classified to determine how that works out. It's not a one-to-one relationship.

Q. Using that as an example in that volume, representing the sales for that period,

we find a pool where the system self-adjusts so that the wells are producing at capacity under the proration system?

A. That's correct.

Q. They're doing so because that is the end result of the calculation when you produce that volume of gas from that pool?

A. Given the nonmarginal wells, that's how that factor comes out, and that's in addition to the total volume here.

Q. Would that be an example where market demand for production from a prorated pool exceeded the deliverability?

A. That's not necessarily the case, no.

Q. Why would that not be the case?

A. You could, due to the F1 factor or due to the ability of the wells to produce in there, you could have the wells become marginal wells; therefore, you would no longer have nonmarginal wells. That doesn't mean that the market in the pool have matched each other, necessarily. It just means there has been an error in the system where you've got the nonmarginal wells now.

Q. When we look at historical past production, then that's not the equivalent of

market demand for that pool?

A. It's all we have for market demand at that period of time, yes.

Q. So, to forecast market demand for this next proration period, you're seeking operators' nomination to go into Line 2 of the spreadsheet by which then the Commission can make the adjustments in Line 3 of the spreadsheet and get us allowables, then, that have now finally incorporated the nominations and market demand?

A. Yes.

MR. KELLAHIN: No further questions.

CHAIRMAN LEMAY: Additional questions? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. It has seemed in the past, Larry, you've always recommended adjustments, yet you haven't at all this time. Can you explain why not?

A. In the last hearing, I believe, in lieu of making adjustments, we wanted the facts just to stand for themselves. This is as the historical situation was and that's what we hope to present here. We don't know the market and we

don't have a real feel for it. Therefore, I thought it was best to present historical data, obtain the information and input here from the producers, and go from that standpoint.

Q. But given what Ron has told us, as far as the increased demand in production and an increased price this year compared to last, you certainly expect there to be a substantial adjustment?

A. That's what we're expecting, yes.

Q. If I look at the total state production by month, say 80, 85 million Mcf, and I compare that to the total prorated production, which roughly might be maybe 10 to 12 million Mcf, we are prorating a very small amount of total production, is that correct?

A. It boils down that the prorated pools produce about 40 percent of the gas well gas in the state.

Q. And then the nonmarginal production from those prorated pools is even substantially less?

A. Is even substantially lower than that, yes.

Q. Is that down from historical trends

from the past? In other words, 10 years ago I assume we prorated a lot larger percent of the production in this state than we do now?

A. Yes. I'm not exactly sure, but the trend is correct, we are prorating fewer and fewer wells and, therefore, the prorated gas is less than it was.

One of the factors that enters into that is the Basin Fruitland Coal is now the largest single gas pool in the state and it's a nonprorated pool, so we have quite a bit of production that's come in from that one pool which would definitely make the trend go down.

Q. How do you get to fractional proration units within a pool? Like 5.49, where does the ".49" come from?

A. In the event that, say, a proration unit is 320 acres, if it is over that, then we give it the fractional amount over the 320 for the proration unit. In other words, it could be 1.06 or 1.05. Likewise, if it's less than the full proration unit of 320 acres, if it were only 300 acres, then we would knock it down to the .86 or .75. When you add those all together, you come up with these fractional figures.

COMMISSIONER CARLSON: Okay, fine. Thank you.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: I have another question on the price of gas.

EXAMINATION

BY COMMISSIONER WEISS:

Q. You mentioned, say, in the San Juan Basin, the state producing or the operators up there producing 40 percent more than this time last year?

A. There were some pools that high. The average is probably between 25 and 40 percent for April and May.

Q. For that gas to be produced, I guess whoever the purchasers are, are buying it from New Mexico rather than someplace else. Where is that someplace else?

A. Any other supplier, I would say.

Q. Again, is New Mexico gas cheaper than any other supplier?

A. I guess you would have to say it was. I assume all the purchasers are buying least cost gas. That may not be a true assumption, but in most cases they probably are.

COMMISSIONER WEISS: Thank you.

CHAIRMAN LEMAY: One question, Mr. Van Ryan.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. We've concentrated on market demand. For purposes of prorationing, is correlative rights also another issue in prorating pools, to protect correlative rights?

A. Yes, protecting correlative rights is one of our other statutory items. Normally those are addressed in the pool rules whereby we set up the means of prorationing. As in the northwest, where we decide to use acreage factors plus deliverability factors to determine the proration up there, those take into account protection of correlative rights. Likewise, in the southeast part of the state, it has been determined that acreage factor alone is sufficient.

CHAIRMAN LEMAY: Thank you. Additional questions of the witness?

MR. STOVALL: I have a follow-up question, if everybody's finished.

CHAIRMAN LEMAY: Mr. Stovall.

EXAMINATION

BY MR. STOVALL:

Q. With respect to the question Commissioner Weiss asked you, he was talking about--kind of led you to a conclusion that if New Mexico gas is being taken in preference to some other gas it's because the price is lower. Is that your understanding of what you were saying?

A. That's as I understand the situation, and then we would have to assume everybody is buying least cost gas. That may not be true, as I said.

Q. The first thing is that when you answered that question, it was simply based upon an understanding of fundamental economics that presumably you will buy the least cost product?

A. Right.

Q. Now, as far as the actual cost, it is not just the price at the wellhead, is it? Are there other factors that might make New Mexico's gas least cost and give it a competitive advantage, hopefully?

A. Yes. There are other costs attached to New Mexico gas; transportation cost and maybe

even brokerage cost.

Q. So it could be not necessarily least cost at the wellhead, what you're really looking at is least cost at the user end of the pipe?

A. Yes, least cost to the consumer.

MR. STOVALL: Nothing further.

CHAIRMAN LEMAY: Additional questions? You may be excused.

Why don't we start the San Juan triangle, and go with Mr. Carr.

MR. CARR: May it please the Commission, I think we would make a better presentation if Meridian was the first company to present testimony.

CHAIRMAN LEMAY: Okay. Well, you all figure that one out and bring your people up. What we want to do is keep your witnesses--I'm not going to have all your witnesses, just the witnesses in the northwest. Mr. Kellahin, just the witnesses in the northwest. And then we'll let those witnesses go and concentrate on the southeast.

Mr. Kellahin.

MR. KELLAHIN: Mr. Carr and I have conferred and we believe an efficient

presentation can be made if we go ahead and present Meridian's proposals with regard to the prorated pools in the San Juan Basin.

CHAIRMAN LEMAY: Fine.

JAMES B. FRASER

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. All right, sir. Would you please state your name and occupation?

A. My name is James Fraser. I'm currently the regional production manager for Meridian Oil, Inc., in Farmington, New Mexico.

Q. Mr. Fraser, on prior occasions have you testified before the Division?

A. No, sir, I haven't.

Q. Summarize for us your education.

A. I've got a bachelor's of science degree in petroleum engineering from Montana Tech, and a master's in business administration from Regis College.

Q. In what years did you obtain those degrees?

A. The bachelor's degree was in 1975, the

master's degree was in 1991.

Q. Summarize for us your employment experience with regards to prorated pools, San Juan Basin?

A. I have been in the Rocky Mountain Region for approximately 17 years, in numerous states, and I've resided in New Mexico for almost two years.

Q. Describe for us specifically what you do for Meridian Oil, Inc.

A. As regional production manager, I manage the daily production of the region's assets, which, of course, entails proration. That's conventional reservoirs.

Q. Have you assumed the responsibilities formerly performed for your company by Mr. Louis Jones?

A. I have until the 31st of the month.

Q. Where is Louis going?

A. He's in Houston.

Q. So you've undertaken filling his slot and are going to participate on behalf of your company with regards to nominations and recommendations for the prorated pools in the San Juan Basin of New Mexico?

A. That's correct.

MR. KELLAHIN: We tender Mr. Fraser as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Let me ask you, sir, to turn to what is marked as Meridian Exhibit No. 1. Would you identify and describe that for us?

A. Yes, sir, I will. This is the Northwest New Mexico Pool Allowables for the upcoming winter period of October of 92 through March of 93. I have the three major pools there, the Basin Dakota, the Blanco Mesaverde and the Blanco P.C. South.

What's listed there is the current recommendation which were the numbers I think Mr. Van Ryan has gone over, and in the following line there I have an adjustment by pool that we would recommend, and then the summary line there would be the monthly pool allowable, which is simply the addition of the first two lines.

Q. Those represent the nominations and requested adjustments on behalf of your company?

A. Yes, sir, it does. As you can see, the Basin Dakota we're requesting an adjustment of 2

Bcf a month, in the Blanco Mesaverde, 3 Bcf a month, and in the P.C. South, 150,000 per month.

Q. Have you made your proposal known to other operators in the Basin?

A. Yes, sir, we have. We have had several discussions with some of the other major operators in the Basin.

Q. Do you believe you're in substantial agreement and consistent with what the level of allowables the other operators are seeking for these pools?

A. Yes, sir, I believe we are.

Q. Let's turn to the second exhibit, Exhibit No. 2. Describe for us the reasons you're seeking this increased adjustment in the allowable.

A. Well, I think there has been a dramatic change in the San Juan Basin this spring, and that is due to the increased pipeline capacity that we have out of the San Juan Basin. As I think everyone's aware, both El Paso Natural Gas and Transwestern have installed additional facilities in the Basin which have increased the take-away capacity of the Basin quite significantly.

The other factor that has played a part in the increased New Mexico production has been an increase in the firming of natural gas prices. I think several people have asked, you know, what effect does price have on production, and there's no doubt, as price goes up, production has seemed to have gone up, also.

Q. Let's turn to Exhibit No. 3. Identify and describe that for me.

A. This is a plot, a monthly production on a Bcf-per-month basis for the Dakota Pool. It starts in January of 1991 and continues through July of 1992. The solid black line is the actual production statistics which are derived from the New Mexico monthly statistical report. The square I have that represents July 1992 production is Meridian's estimate of what the pool production was in July of this year.

Q. This is a plot of the Dakota prorated gas?

A. Yes, sir, that's correct.

Q. What's your conclusion?

A. Production has gone up significantly in the last few months, and I have some further exhibits that quantify that.

Q. What do you forecast to be the production trend in the immediate future particularly with regards to the next proration period that we're making adjustments for?

A. I believe it will be significantly higher than last year's same time frame. For instance, on this chart, you can see for the October to March time frame there, for October of 91 through March of 92, the average production was in about the 7 to 7-and-a-half Bcf per month range. I think that will be significantly higher this coming winter.

Q. Let's turn to the Mesaverde and have you identify and describe that display.

A. This is the same plot that I just spoke about on the Dakota, although this is for the Mesaverde production. Once again, the solid black line is the actual production, Bcf-per-month basis, from January of 91 through May of 92. And then I have Meridian's projection for the July of 1992 time frame.

Once again, as you can see, production is up significantly from last year.

Q. With regards to this Exhibit 4 and the previous Exhibit No. 3, what is the explanation

for the additional production and the trends that show increases in production from those two pools?

A. I believe it's two-fold; first, of course, being expansions out of the Basin. It allows more production because the field gathering pressures have decreased in the last several months, thereby production has been increased. So the price of gas has gone up from last year and it seemed to stabilize somewhat, and I think that makes producers more comfortable with producing their gas at that price.

Q. Turn now to Exhibit No. 5. Would you identify and describe that display?

A. This is a comparison for the last four months of 92, April, May, June and July, compared to the same dates in 1991, April through July. This exhibit is for the Basin Dakota.

What I've listed is the monthly production in Bcf per month and compared 1992 to 1991 and then shown a difference of how production has increased. That's actual production in 1992 for April and May, and June and July has been estimated, and that has been estimated on the basis of Meridian's internal

production for the pool as relates to Meridian's historic percentage of the Dakota Pool production.

As you can see in June and July, I've estimated 8.1 Bcf in 1992, which is up 42 percent from last year at the same time frame. In July it's up almost double, from 5 Bcf to what I estimate as 9.4 Bcf.

Q. Describe for us how you've made the estimates.

A. I took the Meridian internal estimate from our internal accounting system as to what we think Meridian's production is for June and July, divided that by the historic ratio of what Meridian's production has been for the total pool, which has been fairly consistent for the last 18 months, and come up with the pool production.

Q. If we use the Division's preliminary schedule without the adjustments, which simply repeats the historical production for the last winter proration period, and use that to set allowables for these prorated pools, will we have allowables high enough in order to meet the forecasted needs for market demand?

A. No, sir, I don't believe we will.

Q. Let's turn to Exhibit 6. Would you identify and describe that display?

A. This is the Blanco Mesaverde Pool production in Bcf per month, for the same time frame as I just went over on the Dakota; once again, for April, May, June and July time periods for 91 and 92 and a comparison between the two.

I derived the June and July estimates by once again using the same method I did for the Dakota, took Meridian's internal estimate of our production for those two months, divided that by Meridian's historic percentage of the entire pool production, to arrive at the total pool production.

As you can see, similar to the Dakota, production is up significantly in the last few months compared to 91. As a matter of fact, in July I estimate the total pool production to be 16 Bcf as compared to 1991's value of 10.8 percent.

The bottom line there shows an average of those four months, which is simply just an arithmetic average. You can see for that same four-month period we're up approximately 17

percent in the Mesaverde production from last year at this same time frame.

Q. Let's turn now to Exhibit 7 on the Blanco Pictured Cliffs South Pool. Identify and describe that.

A. This is the exact same statistics for the Blanco P.C. South Pool, once again comparing 92 to 91 for the April through July time frame. And you can see in April and May the production was up about 20 percent, in 1992, and based on our preliminary numbers, June and July will be up significantly more from last year.

The average number there shows the four-month average of a 39 percent increase from last year, from slightly under 1 Bcf per month to about 1.25 Bcf per month.

Q. Turn with me to Exhibit No. 8. What is the purpose of this display?

A. This just shows kind of a historic run down of what the allowables have been by pool in the winter time frame in the last five years.

As you can see, I have the three major pools, the Mesaverde, the Dakota, and the P.C. across the page, and then down the page I have the October through March time frame for the last

five years, and then I also have an average of the last five years listed.

For the Blanco Mesaverde, the average allowable has been 15.182 Bcf a month, the Dakota 9.59 Bcf a month, and the Blanco P.C. South 1.339 Bcf a month.

The next line shows the October 92 to March 93 proposed that the Commission has published.

Q. This is the preliminary schedule from the Division?

A. Exactly.

Q. It has not yet been adjusted to take into consideration market demand?

A. That's correct. And that's why I'm here today, to give operator input as to what we think that demand is. You can see, if the allowable was set at what the original proposal was for the Mesaverde, for example, 12.265 Bcf a month, it would be 19 percent less than the average over the last five years, and 13 percent less than last year.

The next line is my recommendation for that October of 92 to March 93 time frame and allowable, and you can see it's at 15.265, which

we've already gone through, and that's essentially the same as what the average has been for the last five years.

Similarly, on the Dakota, you can see the average for the last five years is 9.59. The original proposal, without adjustments, is 7.145, and that is 25 percent below the average for the five-year time frame. Our recommendation is to go to a 9.145, which puts us about 5 percent below the historic average for the Dakota.

Similarly, on the Blanco P.C. South, the original proposed is 1.06 Bcf a month. That's 21 percent less than the five-year average for the same time frame. Our proposal is 1.211 Bcf per month, which is about 10 percent below the historic average. This is simply to show what the allowables have been, by pool, in the last five years.

Q. Turn now to Exhibit 9 and identify and describe that for us.

A. This is just a graphical display of the statistics I just reviewed. This is for the Basin Dakota. The vertical bars are the allowable for the time frame we just reviewed. On the far right-hand side you can see what I've

labeled October 1992.

The first bar there is 7.145, which is the original recommendation. The 9.145, identified as October 1992 proposed, is what we would recommend. And you can see the historical relationship between what we're proposing versus the five-year average. The horizontal line says average equals 9.590, is simply a straight line representing an average of those five years.

Q. And Exhibit 10?

A. Same exact representation of the previous data. I've put the average for the last five years as a horizontal line as 15.182, versus what we proposed as 15.265 Bcf a month, and you can see we're very, very close to the five-year average.

Q. And then, finally, Exhibit 11?

A. Once again, a similar presentation that shows our proposal of 1.211 being slightly below the five-year average of 1.339 Bcf per month.

Q. Give us some information from your perspective on marketing trends and strategies in the Basin as it now affects that production.

A. Well, I think price, of course, is the key factor there. As everybody is aware, the

price has increased over the last few months and, of course, my crystal ball isn't any better for future prices than anybody else's, but the natural gas price futures have shown an upward trend in the next six months, so I would believe that prices should stay relatively the same as what they are now, if not increasing a little more, and given with that price and the take-away capacity of the San Juan Basin, I believe producers will be trying to market gas similar to what we've produced in the last couple of months.

Q. Let's talk about general marketing strategies. A few years ago it was a common device for operators in the San Juan Basin to overproduce their wells in the winter, underproduce them in the summer, and bank that allowable, if you will, during the summer and use it, then, in the wintertime. There was this seasonal fluctuation to satisfy a high priced winter market. Do you see that in existence now in the San Juan Basin?

A. No, sir, I don't. The statistics I've shown for the June and July period of this year show that we've had higher production this year than we did last year in those prorated pools.

Q. Do you see any instances where if your allowable levels are approved, there will be operators that will choose not to market their gas and accrue substantial underproduction for their nonmarginal wells that may be subject to cancellation?

A. Oh, I suppose they could, but with today's prices, I could only represent Meridian's standpoint. We will not do that. We will produce to the allowables based on the well's deliverability.

Q. You have both marginal and nonmarginal wells in all these prorated pools?

A. Yes, sir, we do.

MR. KELLAHIN: That concludes my examination of Mr. Fraser. We move the introduction of Meridian's Exhibits 1 through 11.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 11 will be admitted into the records. Questions of Mr. Fraser, Mr. Stovall?

MR. STOVALL: Yes.

EXAMINATION

BY MR. STOVALL:

Q. I have just a couple, just by way of

clarification and understanding.

The question is generally applicable to all three pools that you're recommending adjustments for. I would kind of like to, if you're going to make an adjustment, ask you to justify it and give us a basis for it.

In each of the pools you've talked about for the periods that you've shown on your charts, in the past the Division has established an allowable which was higher than the previous light year's production. Do you follow what I'm saying?

For example, let's do Blanco Mesaverde. That's the big volume pool. In October 89 through March 90, the pool sales were just about 15 million Mcf, 14.9. I'm going to hand you the source of information so you can see what I'm talking about, and I think you can track it with yours.

This is the information that was sent out by the Division. We have not made it an exhibit in this case, but it was sent out with the docket, which has some historical tracking of production and allowables. I'm looking in the Blanco Mesaverde column, October 89 through March

90. Do you see where I am?

A. Yes, sir.

Q. Okay. Production was 14.9 million Mcf?

A. Yes, sir.

Q. The allowable for the following like period was set at 15.7, which was higher than the previous year's sales, so there was an upward adjustment made. Are we together so far?

A. Yes, sir.

Q. The actual production, however, was 14.1 million, which was quite a bit under the allowable and even under the previous period's sales.

Take the same thing down, take that 14.1, the October 91 through March 92 allowable, which was set at 14.168 as opposed to 14.122, previous period's production, so it was a slight increase, and the actual pool sales were 12.265 for that period. So again, considerably under the total pool allowable.

Now, what the Division has done this time is come down to the period, the last on the table, for the preliminary recommendation is 12.265 without adjustment at this time, and what you are asking for or what Meridian is requesting

is an allowable which would be 3 million Mcf higher than that, just slightly under the 90-91 allowable, yet sales and production haven't demonstrated a need for an allowable at that level.

I guess I'm asking you to amplify a little bit your basis for going up. The same analysis is applicable to all three pools, so I think your analysis can apply in general to the three.

A. To answer your question, sir, I'm not exactly sure how the allowables were set in the earlier years. My understanding is that for this latest one, the actual production for the last time frame is now this year's allowable, and then the Division is looking for recommendations from the producers to say what is our future production and demand so we can make adjustments to that so we can arrive at the allowable.

I believe, as I stated earlier, that the pipeline expansions out of the Basin have made a significance difference in the production that these pools can have. For instance, earlier in the year, last year, for instance, the gathering pressure out in the field was

approximately 400 psi, with the expansions out of the Basin. The current pressures are in the 300 psi range. That has allowed for a significant increase in production on these conventional reservoirs.

I think that's why production is increasing dramatically the last few months. And due to that increase in production, we're saying that the demand must be there. There must be a demand because we're producing more and selling more. So there must be a demand there. If that's the case, we would like the allowables increased so that we can meet that demand.

Q. I don't disagree with that. I guess my question is, how did you arrive at, again, using the Blanco Mesaverde as an example, where did the number "3 million" come from as opposed to 2.5 million or 3.5 million?

A. Well, I looked at the statistics that I've already reviewed, and I saw that the last four-month average production was 14.9 Bcf per month, which is slightly less than the 3 Bcf adjustment originally forecast by the Division. The 3 Bcf, that's exactly what was used last time, the last six-month proration increase, for

an adjustment for these pools. It's the exact same number, and it fit pretty well with what I've seen as an increase in production.

Q. So, in other words, this is your best scientific wag based upon the best predictions you can make with some historical support? Is that what you're telling me?

A. That's exactly right, sir. And the 3 Bcf, that was the number for the Mesaverde that the Division accepted six months ago, and it seems like if we add that to the original allowable of 12.2, it's a fairly good fit for what we see as the production out of the pool for the next six months.

Q. What you're suggesting then is that the trend which I've just identified and gone through the table with you on, is reversing itself, and you anticipate that you won't see as much underproduction at those levels?

A. Yes, sir, I would say that's true.

MR. STOVALL: Nothing further on that.

CHAIRMAN LEMAY: Additional questions? Yes, sir.

MR. CAMP: Thank you, Mr. Chairman. Ward Camp for Gas Company of New Mexico.

EXAMINATION

BY MR. CAMP:

Q. Mr. Fraser, a little bit more specifically. Mr. Stovall talked about past periods. You have, in your chart, current months or right up to the last--April, May, June and July. Where did you get that production data?

A. The April and May numbers came from the state statistical report that's published every month. The June and July numbers were estimates based on Meridian's internal estimate of what the production was for those pools, and I factored that up by what our historic percentage of the entire pool's production is.

For instance, over the last 18 months, for instance the P.C. Pool, Meridian's percentage is about 32 to 33 percent of the entire pool production. I took our internal estimate for those two months and divided that by .33 to come up with what I think is a reasonable estimate of what the production was for July of 1992. I don't know that for a fact until the state books actually come out, but I think it's a reasonable estimate at this point in time.

Q. Have you also been tracking allowable

production for this same period?

A. The allowable production?

Q. Yes.

A. What the allowable is?

Q. Yes.

A. I believe it's in the 15 Bcf range for the Mesaverde.

Q. Okay. My question is, for these time periods when you have shown considerable increases in demand, has, in fact, production equaled or been greater to the allowable set?

A. I haven't averaged it out, but my sense is that the production for the summer months will be fairly close to the allowable which was granted six months ago.

Q. Even though it has these big, big increases, it will only be fairly close to the actual allowable?

A. Yes. And as I've said, the four-month time frame there, the average is 14.9 Bcf, and I think the allowable for that same time frame is in the 15 Bcf range for the Mesaverde, so I think it will be fairly close to that 15 Bcf number for that six month time frame.

Q. Has Meridian's production equaled or

exceeded all of its allowables in the pools during this same time period?

A. I don't really know, to tell you the truth. I know our production has gone up. One of the problems is that the current proration book has some errors in it and it's kind of hard to follow on an individual well basis what the allowable is and what the production is. We don't have a real tool to look at what the allowable is for this current six-month time frame. I know our production is up. I don't think it's significantly above or below the current allowable.

Q. All right. Has Meridian received any shut-in orders on their wells in the three prorated pools?

A. We shut-in wells that are 12 times overproduced, but I think that's a very, very, very minimal number of wells.

Q. Are you prepared to say that you've really been adversely affected by the allowables so far, for this last six-month period?

A. No. For the approximately 15 Bcf allowable for the Mesaverde for the last six months, we haven't been adversely affected, no,

sir.

MR. CAMP: No further questions.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. What did you say the allowable currently is?

A. I think it's about 15 Bcf per month, but I don't have the exact number.

MR. STOVALL: If you think it might be helpful, Commissioner Carlson, I think that's on the table.

COMMISSIONER CARLSON: No, it isn't.

MR. STOVALL: I'm sorry. I'm looking at the wrong period. This is the October period.

COMMISSIONER CARLSON: I might be able to find it.

MR. KELLAHIN: Commissioner Carlson, here's a copy of the last order.

COMMISSIONER CARLSON: You're right, 15.2.

Q. (BY COMMISSIONER CARLSON) Was that based on actual production or were there adjustments in that, do you remember?

A. There were adjustments.

MR. STOVALL: Perhaps I better answer that rather than the witness, since he wasn't here.

COMMISSIONER CARLSON: Okay.

MR. STOVALL: The same process has been used since we've gone to the six-month period. My recollection is there have been adjustments made in each proration period by the Commission so, yes, there were adjustments. And I can say that based upon production numbers. I know that's been adjusted upwards. Mr. Van Ryan could answer that, too, if you would like.

COMMISSIONER CARLSON: Mr. Kellahin gave me a copy of the order, and it was adjusted three million, up to 15.2 from 12.2.

Q. Do you have any idea what the deliverability is from each of these pools?

A. I can't quantify a number, but it's probably slightly higher than the allowable.

Q. When Meridian, and I assume all companies are the same, Meridian does not set, really, demand by pool, do they? You look at the San Juan Basin for all the wells you operate and say I need "X" Mcf today or next week, whatever, right?

A. That's correct.

Q. I assume that's true, that the days when pipelines or producers set demand by pool are more or less gone, they do it by receipt points or Basin, is that correct?

A. I believe that's correct.

Q. In your experience that's probably true nationwide now?

A. Yes. I don't think you can know what the demand is for the Mesaverde Pool by itself, or the Dakota Pool by itself. I think it's a total number.

Q. In New Mexico, really we probably have two demands? We have a demand for the San Juan Basin and a demand for the Permian Basin, and really no pool-specific numbers anymore?

A. That's correct.

Q. When we perform this exercise every six months, that's really the only time anybody breaks it down to demand by pool, is that correct?

A. I believe that's correct.

COMMISSIONER CARLSON: That's all I have.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. I'm glad to see you in New Mexico. Did you test your methodology of Meridian's share of the last two months, how you scaled up to predict for the pool-wide estimate against the past few months?

A. Yes, sir, we did. That number came from the last 18 months, January of 1991 through, I believe it was the last month published, which was May of 92. We looked at that month by month and looked at a weighted average. It's fairly consistent throughout that 17-month time frame.

Q. Very good. Thank you. And then, does Meridian receive a wellhead price different, much different than the other operators in the pools?

A. Boy, I'm not a marketing expert. I really don't know. I would doubt it; I just don't really know.

COMMISSIONER WEISS: Thank you. That's all I have.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. I have just one question, Mr. Fraser. On your group showing averages over the last five

years, do you have any opinion as to what the pool deliverability has done over those five-year periods?

A. Well, I think there has been testimony in previous hearings that the deliverability has probably gone down, but at the same time pipeline pressures were going up. I think that's what you're seeing, is deliverability going down or production going down, as a function of pipeline pressures going up.

I don't know that I know what the deliverability has done over that five-year time frame. Obviously production was less than the allowable, but I think a lot of that stems from the gathering system pressures that we've had to work against.

CHAIRMAN LEMAY: Thank you. Additional questions of the witness? Mr. Stovall.

MR. STOVALL: I just have one follow-up to that question.

FURTHER EXAMINATION

BY MR. STOVALL:

Q. You indicated that you believe that with these pools the pool deliverability is somewhat in excess of the allowable or your

recommended allowable, is that correct?

A. That's correct.

Q. Other than declining pipeline pressure and therefore the ability of the wells to produce more in their current state, do you know of any development reworking, infill drilling efforts, that will go and will somehow flatten out the deliverability of the various pools? Is Meridian specifically involved in any--

A. Oh, we constantly evaluate our asset base to see if we can improve it and increase its value by drilling new wells, recompleting, that sort of thing. I don't think we have a conscious effort to, because if the allowable is higher, we're going to go out and drill a bunch more wells to meet that. I think our current asset base can meet the current allowable and the allowable we've recommended.

Q. Of course, that's a function of being able to--you don't drill wells unless you get them into the pipe, and I guess that would be--

A. That's correct.

Q. Assuming there's more pipeline capacity?

A. That's correct. I believe that's

correct.

Q. That would be a driving force, would it not?

A. Yes, sir. To answer your question, we constantly look for ways to increase and improve our asset base, and that, a lot of times, is reworking wells and drilling new wells.

Q. I guess my question is, is there any change in the deliverability trend that you would see?

A. Major? I don't believe a major change. I don't think we're going to go out and drill a significant number of new wells. I think the pipeline gathering pressures has been the single, most positive change that's happened in the flow regime of the wells, has allowed them to produce more.

MR. STOVALL: Nothing further. Thanks.

CHAIRMAN LEMAY: Additional questions? You may be excused. Thank you very much.

Let's take a 15-minute break and come back at 10 minutes till 11:00.

[A recess was taken.]

CHAIRMAN LEMAY: We shall resume. Mr. Carr?

MR. CARR: If it please the Commission, at this time we would call Mr. Hawkins to make a presentation for Amoco Production Company.

J. W. "BILL" HAWKINS

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. James William Hawkins.

Q. Where do you reside?

A. Denver, Colorado.

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

A. Amoco Production Company as a senior petroleum engineering associate responsible for regulatory affairs in Colorado and New Mexico.

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

A. Yes, I have.

Q. In fact, presented testimony at the last allowable hearing on behalf of Amoco, did you not?

A. That's correct.

Q. At the time of your prior testimony, had your credentials as a petroleum engineer been accepted and made a matter of record?

A. Yes, they have.

Q. Are you familiar with the New Mexico gas prorationing system?

A. Yes, I am.

Q. You monitor that system, in fact, for Amoco Production Company, do you not?

A. Yes.

Q. Have you reviewed the preliminary nominations for the prorated pools in the San Juan Basin?

A. Yes, I have.

Q. Are you prepared to make recommendations to the Commission concerning allowables for these pools for the next proration period?

A. Yes, I am.

MR. CARR: Are Mr. Hawkins' qualifications acceptable?

CHAIRMAN LEMAY: They're accepted.

Q. Mr. Hawkins, would you briefly state what Amoco seeks with its presentation here today?

A. We would like to make a recommendation for adjustments for the prorated pools in the San Juan Basin and show what the impact would be on resulting F1 and F2 factors to calculate allowables in those pools.

Q. Have you prepared an exhibit for presentation here today?

A. Yes, I have.

Q. Would you refer to what has been marked as Amoco Exhibit No. 1, identify that, and then review the information on this exhibit for the Commission?

A. Exhibit 1 is simply a set of calculations similar to what the Division publishes or has published for notice in this hearing. It shows similar average monthly sales as what were published by the Division. It shows a recommended adjustment of 2 Bcf per month for the Basin Dakota Pool, 3 Bcf per month for the Blanco Mesaverde Pool, 150 million cubic feet per month for the Blanco P.C. Pool, and a hundred million cubic feet per month for the Tapacito Pool.

These adjustments are identical to what was approved during the last allocation period,

and we recommend that they be used for the upcoming winter period.

The reason we're recommending that is several-fold: It appears that looking at our production and also from the presentation that Meridian made just previously, the production has increased through these conventional pools as was reasonably expected at the time at last year or last period, and that expectation was as a result of increased pipeline transportation and resulted lowering of system pressures, pipeline pressures and gathering system pressures.

It appears that the adjustments that we're recommending and what was used last year is reasonable. It looks like it will accommodate current production levels and expected production levels through this next period.

We would recommend that the Division apply those same adjustments for the upcoming winter period, and we feel like that will adequately meet the market and expected production from those pools and should not have any significant impact on over- or underproduction from those pools.

Q. Mr. Hawkins, the actual adjustment that

Amoco is recommending is set forth on the third line of Amoco Exhibit No. 1?

A. That's correct.

Q. Basically, you were here six months ago and projected certain increases in production in the San Juan Basin?

A. That's right. I think we showed there would be an increase of about 550 million cubic feet per day as a result of increased--or as a result of decreasing pipeline pressures and increasing a well's ability to produce. That's almost a doubling of production from the low period, I guess, just prior to the input of pipeline expansion. And just based on Amoco's operated wells, we've seen already a 50 to 75 percent increase in production from those conventional prorated pools, and are expecting that we will just about meet that full hundred percent increase in production that we were looking at six months ago.

So, I think these adjustments for the proration schedules will certainly accommodate that production and meet the market for that production.

Q. In other words, is it your testimony

that these adjustments are necessary for operators in these prorated pools to meet the market demand for gas from these pools during the next period?

A. Yes, it is.

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

A. No.

Q. Was Exhibit 1 prepared by you?

A. Yes.

MR. CARR: At this time, may it please the Commission, we would move the admission of Amoco Exhibit No. 1.

CHAIRMAN LEMAY: Without objection, Exhibit 1 is in the record.

MR. CARR: That completes my direct examination of Mr. Hawkins.

CHAIRMAN LEMAY: Thank you. Questions of the witness? Commissioner Weiss.

EXAMINATION

BY COMMISSIONER WEISS:

Q. Is there a difference between your F1 and F2 factors and the OCD's?

A. Yes. The F1 and F2 factors that we've calculated here include the adjustments that

we're recommending. If you looked at what the OCD has submitted, you'd see that the F1 and F2 is quite a bit lower without that adjustment in it.

COMMISSIONER WEISS: Thank you. That was my only question.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. I notice some similarity between your proposed adjustments and Meridian's. I take it that Meridian and Amoco discussed this and concluded that this was what you would recommend, is that correct?

A. Well, in actuality yes, we did have a discussion. However, we had conducted a separate analysis from them, and when we did discuss what was each company going to recommend, it turned out that they were basically identical in the Dakota and the Mesaverde.

I think the reason for that is that we're looking at the same adjustments as what was approved by the Division for the last six-month period. I think we both agree that production has increased significantly and that these

adjustments should accommodate expected production throughout the winter period.

Q. Have you discussed these adjustments with other San Juan Basin producers, the ones that aren't represented here today?

A. No, I have not. I have talked with representatives from Phillips and understand they're going to make a recommendation very similar to this. I think we all recognize that there is increasing production from these conventional pools as a result of pipeline pressure decreases, and increased transportation, and I think all we're doing is recommending to the Division to accommodate the expected increased production and the market for that production.

COMMISSIONER CARLSON: Thank you.

CHAIRMAN LEMAY: He may be excused.

Looking back here, Mr. Kellahin, do you want to proceed?

MR. KELLAHIN: Presentation for Phillips.

KIRK CZIRR

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. All right, sir. Would you please state your name and occupation?

A. Yes. My name is Kirk Czirr. I'm the field development supervisor for Phillips Petroleum Company in Farmington, New Mexico.

Q. Mr. Czirr, on prior occasions have you testified before the Commission at past allowable hearings?

A. Yes, sir, I have.

Q. What specifically have you done with regards to this particular hearing today on behalf of your company?

A. I've looked at Basin Dakota Pool allowables and am prepared to make recommendations for adjustments.

Q. Your focus of recommendation, then, is on the Basin Dakota Pool?

A. Yes, sir.

MR. KELLAHIN: We tender Mr. Czirr as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Let me direct your attention to what is

marked as Phillips Exhibit No. 1. Are Exhibits 1, 2 and 3, documents that you've prepared?

A. Yes, sir.

Q. Let's turn to Exhibit 1, then. Identify for us how to read the display and then let's talk about what conclusions you've reached from that information.

A. Okay. Again, strictly for the Basin Dakota Pool in the San Juan Basin, what I've got plotted from January of 1989 through May of 1992, which was the most recent available data, is pool overall gas production on a monthly basis versus spot gas prices, dollars per MMBTU at El Paso Blanco hub.

We've got gas price shown on the left vertical axis and gas production and Bcf a month shown on the right vertical axis. Gas price is the curve in red. Production is in blue.

What this is intended to show is that, first of all, there's virtually a direct correlation between gas production and gas price. In the winter periods, you can look at the graph, and if gas prices have been high, production is going to be high. In the summertime, if gas prices are low, production is

going to be low.

It also shows that the winter, the 1991-1992 winter production period, which we're comparing ourselves against this current allowable setting, it shows abnormally low gas prices for the winter, and correspondingly abnormally low gas production for that same time period. Part of that's been due to overall depressed gas prices nationally during that time period. Locally we were seeing effects from pipeline capacity constraints which further were depressing San Juan Basin gas prices. Those capacity constraints are no longer there.

If you look at production since February of 92, you'll see that in February of 92 we reached a low point in the Basin Dakota Pool with the gas price of approximately a dollar per MMBTU. Gas production was a little over six and a half Bcf per month, and since that time we've seen a steady and consistent increase in gas prices and a corresponding increase in gas production.

Q. Describe for us what Phillips' general marketing strategy is for production out of this pool.

A. Phillips' strategy out of this pool and other pools within the Basin is to produce year around, to the best of our ability, to try to provide a constant and consistent base load to the consumer.

Q. In your opinion, should we forecast future market demand and thereby set allowables for this pool based upon the last historical production for the period of October 91 through March of 92?

A. No. In general, you can get into problems with that in any time period, and I think in particular, looking at this time period that we're examining now, there's even more things to be taken into account rather than just looking at actual production numbers.

Q. Let's turn now to Exhibit No. 2 and have you identify and describe that display.

A. As we looked at on the last exhibit, production from the pool has seen some fairly large swings relating to whatever the gas price happened to be. Trying to determine exactly what is going on with production, we looked at the approximately 3,800 active Basin Dakota wells in the pool, including marginal and nonmarginal

wells.

We tried to compare--we tried to look at individual wells and see if they were all producing consistently through the winter and summer periods, or if there was a substantial portion of wells where they might, essentially, be shutting in in the summer and producing only in the winter and that creating a swing.

What we found was, if you look at the 1990-1991 winter, okay, and compare production to what we saw in the summer of 1991, what you find is that of the 3,800 wells, almost 1,500 of those wells were producing at a rate at least twice in the wintertime versus in the summertime. Their winter production volumes were at least twice what their summer production volumes were.

If we go to the winter of 91-92 and compare production from those same wells again and compare it to summer 1991 production, what we find is that only a little over 600 wells had wintertime production at least double the summertime production. We directly attribute that to gas prices.

It's evident from looking at this that you have a number of operators whose marketing

strategy is to curtail during low gas price periods and produce during the high gas price periods. During the winter 91-92, we had relatively low gases on a historical basis compared to previous winters, and therefore we didn't see the big swings in production. We still had a substantial amount of production shut in in the winter of 91.

Q. What's your estimate of price for the next proration period in terms of how it might affect production from this prorated pool?

A. Again, as we've seen, price has a direct impact on production. Since February, when we were at $1 per MMBTU, we're approximately at $1.85 per MMBTU in August. Futures prices for November 92 through February of 93 average $2.06 per Mcf, so it's our feeling that gas prices will indeed continue to increase through the winter time period and we will see the increase in production continue.

Q. Let me ask you to turn to Exhibit 3 and, without reading your conclusions, summarize for us each of the points that you want to make in the presentation.

A. Okay.

Q. We've already addressed the fact that the most recent historical production is not a true indicator of what will happen this next winter proration period. What is your estimate of the true deliverability or the capacity of this pool to produce gas?

A. If you look over the last six years, including the last year or two when wintertime production was relatively low by historical standards, if you look at the last six years, average production, when gas prices have been high, has been in excess of 10 Bcf per month and we think that that's a realistic deliverability for the pool.

When we look at what kind of allowables are needed in order to obtain the 10 Bcf per month, we see that we need about somewhere in the vicinity of a 4 Bcf allowable for nonmarginal wells.

Q. And that is not the level of request that you're making at this point?

A. I'm saying we need allowables of approximately 4 Bcf for nonmarginal wells, not necessarily an adjustment. The adjustment that we would be requesting is approximately a 1.8 Bcf

adjustment. If you look on Exhibit 3--

Q. You can go back to Exhibit No. 2, if you want to look at the spread sheet and find, I think, it's the third entry down?

A. Yes.

Q. All right. Let's talk about that.

A. If we look at the spreadsheet that I prepared here, it shows the OCD's proposed allowable for the October 92 through March 93 period, and the effect on those numbers on allowables for different deliverability wells, different deliverability GPUs.

In the next column over, we have for comparison the current allowables that exist for April 92 through September 92, and the farthest right column over represents Phillips' proposed allowable.

If you work down the spreadsheet for different deliverabilities, I have here a 200 Mcf a day case, 490, 750 and 1 million cubic feet a day case. What you find is that with the Phillips' proposed allowable, total nonmarginal pool allowable of 3.9 Bcf per month, you still have curtailment for wells that are producing substantially greater than the average

deliverability of the average nonmarginal well, which is about 518 Mcf a day.

Q. Do you see any potential to impair correlative rights of any of the operators or people entitled to share in production in the pool if the allowable level is approved, as you propose it?

A. Phillips does not feel that reservoir-related correlative rights are of an issue in the Basin Dakota Pool. Again, if you look at the operating practices of many operators within the pool, where they are curtailing production during low price periods and producing only during high price periods, that yields an overall lower annual production. And they would not be doing that if they were worried about reservoir-related drainage issues.

Q. In your opinion, is there a demand for the production of gas at the allowable level you're proposing? Can you market and sell this gas?

A. Yes, sir, we can market all of our gas. And I think the demand is also evidenced by the fact that gas prices are increasing. If the demand was not there, I don't believe gas prices

would be increasing.

Q. Do you concur with the conclusions reached by Mr. Fraser and Mr. Hawkins that in recent past, the fact that wells were not producing their entire allowable may be attributed not only to price but to pipeline capacity constraints?

A. It can be attributable to a wide number of things, like you said, pipeline capacity, which again affects price. Every operator has his own marketing strategy and his own threshold, as far as when he produces all that he can versus when he produces only a small fraction of that.

Q. In summary, your conclusion is to recommend an adjustment in the Basin Dakota that is consistent with the adjustment made by the Commission for the current proration period we're now in, which was in the range of 1.8, I guess, to 2?

A. It was--yes. That actually gives you slightly higher F1 and F2 factors than what we have in the current period. Again, I think that's justified by the fact that we are going into the winter season and will expect even higher gas prices, higher demand for gas and

higher production levels.

The only other thing I would like to add is that we did receive a large adjustment in allowables for the summer 1992 period that allowed some operators to economically justify development drilling programs which were badly needed, well workover programs, et cetera. Phillips themselves, we've not drilled any wells yet. We're still trying to get funding for them, but maintaining the high allowables is key towards continuing to promote activity in the Basin and give operators some security that if they make investment decisions today, based on high allowables, there will still be sufficient allowable in the future to receive the pay back on those investments.

Q. Will allowables for this pool, at the level you request, provide that economic opportunity for additional workovers, compression and drilling in the pool?

A. Yes, sir, they will.

MR. KELLAHIN: That concludes my examination of Mr. Czirr. We move the introduction of his Exhibits 1 through 3.

CHAIRMAN LEMAY: Those exhibits will be

admitted into the record without objection.

Questions of Mr. Czirr?

MR. STOVALL: One, Mr. Chairman.

EXAMINATION

BY MR. STOVALL:

Q. Looking at your Exhibit No. 1, am I seeing correctly that it appears that actually production increases preceded price increases, kind of as a trend? If you look at all the upward lines and they follow price decreases, which you might expect, but I think you would, am I seeing it correctly? It looks like they're about a month or month and a half ahead of actual price, just looking at the direction where the line turns and starts up?

A. In some cases. If you look at the most recent information that we've got, which would be February of 92, gas production was low in February of 92 and evidently not predicting higher prices. That would follow. In some years that has happened.

Q. Is that in anticipation that prices will be higher, so start getting in and get your market share?

A. It could be.

MR. STOVALL: Okay. I was just curious.

CHAIRMAN LEMAY: Additional questions of the witness?

Commissioner Weiss?

COMMISSIONER WEISS: Just one.

EXAMINATION

BY COMMISSIONER WEISS:

Q. What's a GPU?

A. Gas proration unit.

COMMISSIONER WEISS: Thank you. That's the only question I'm missing.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. On your Exhibit 1, El Paso Natural Gas prices, you say that's a spot price?

A. Historical spot price, yes.

Q. Published by whom? Is that inside FERC Gas Daily?

A. To tell you the truth, I can't answer you. I got that from our marketing people in Houston for what the historical spot prices were.

Q. Looking at your Exhibit 1, is there any indication at all that past proration by this

Commission has had any effect on the production line there?

A. Obviously it affects, when you look at this pool in particular, obviously it affects production from some wells. We certainly have nonmarginal wells that are curtailed due to proration. In fact, we still have some nonmarginal wells shut in because we went the 12 times overproduced.

The relatively small number of nonmarginal wells within the pool and then the relatively small number of nonmarginal wells that produces sufficient volume to have an allowable problem, that turns out to be a small percentage of the overall pool, so you probably don't see it on the graph itself.

Q. How many nonmarginal wells do you have shut in now because of overproduction?

A. Eight, I believe.

Q. Eight?

A. I believe, and they were shut in about eight months ago.

Q. On your Exhibit No. 2, you say the upcoming allowable period average nonmarginal deliverability is 518 Mcf per day. How did you

arrive at that number?

A. That just comes from the OCD mailings where they take the acreage times the deliverability number and divide that by the total number of nonmarginal acre factors.

Q. And, according to your calculations for your recommendations, I guess the break-even line where prorationing would have any effect would be at 590, is that correct?

A. Yes, and I think the people before me that have asked for a slightly higher adjustment, 2 Bcf adjustment compared to our 1.8 Bcf adjustment, I think that raises them up to about 650 or something like that, in that general ballpark.

Q. 650?

A. Yes.

Q. I guess it's--for the Basin Dakota it's 229.86 nonmarginal acreage factors?

A. Yes, sir.

Q. Do you know how many of those would be producing above the 590?

A. No, I would not.

Q. Do you have any idea?

A. No, sir.

Q. So I assume you also have no idea as far as the 650 that Meridian and Amoco would like?

A. Right.

MR. STOVALL: Commissioner Carlson, if I could help with that, the bulk of those will have produced above that level kind of on an average. That's how they stay nonmarginal. That's based upon actual production and not any sort of deliverability test, so probably most of them are producing at or above that cutoff level that he's identified.

COMMISSIONER CARLSON: Above the 518, though, which is the current level?

MR. STOVALL: I don't know if that's what it is. I'll accept his current analysis.

COMMISSIONER CARLSON: There may be a substantial number of those between 518 and 590, for example?

MR. STOVALL: Correct. Yeah. They could be right at that level. They just have to produce a nonmarginal allowable at some point to stay nonmarginal.

Q. One final question. You're recommending less adjustments than Meridian or

Amoco. Would you have any problem with their recommended adjustments?

A. No, sir. In fact, I think as discussed in earlier testimony, we, in fact, talked about this whole issue. Phillips has talked with Amoco, with Meridian and with Unocal, and we're comfortable with their numbers. I'm not sure that there is a number that sticks out as being, you know, the absolute and only appropriate number.

COMMISSIONER CARLSON: I understand. Thank you.

CHAIRMAN LEMAY: Additional questions?

EXAMINATION

BY MR. CAMP:

Q. If I can just ask it from here? As a follow-up to Commissioner Carlson's question, you said there were eight wells shut in by Phillips because of overproduction. Is that pursuant to an order of the Division or is it because of internal reasons of Phillips?

A. Well, they're shut in because we exceeded 12 times over our allowable and recognized that on one of the OCD proration schedule mailings, I guess a year ago or sometime

back, and so we took the action voluntarily.

MR. CAMP: Thank you.

CHAIRMAN LEMAY: Additional questions? The witness may be excused. Thank you. Unocal?

MR. CARR: Mr. Chairman, Unocal would like to make a brief statement concerning the allowables in the San Juan Basin, and that may be the last matter that relates to the San Juan Basin.

CHAIRMAN LEMAY: Let me ask you, Mr. Camp, do you have any witnesses?

MR. CAMP: I do have a witness.

CHAIRMAN LEMAY: Let's have that testimony and then we'll take the statement.

Is this going to be the last testimony on the San Juan Basin? We'll accept statements afterwards.

MR. CAMP: Thank you, Mr. Chairman, Commissioners.

VICTOR T. LYON

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CAMP:

Q. Mr. Lyon, would you state your name for

the record?

A. Victor T. Lyon.

Q. Mr. Lyon, are you the previous chief engineer of this Division and a petroleum engineer?

A. Yes, I am.

Q. Have you previously had your credentials accepted as a petroleum engineer and as an expert on the prorationing system of New Mexico in this Division?

A. Yes, I have.

MR. CAMP: I tender Mr. Lyon as an expert in the prorationing system.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Who are you appearing on behalf of today?

A. Gas Company of New Mexico.

Q. Does Gas Company of New Mexico have a position on the recommended allowables of the Division?

A. Yes, it does.

Q. What is its position?

A. Gas Company feels that the proposed allowables as published by the OCD are very much

in line with the demand, as they see it. They feel that demand is approximately flat with last year, and recommend strongly that the OCD use their proposed factors as the factors in the proration schedule.

Q. Has Gas Company submitted its nominations for this next six-month allowable period?

A. Yes. We were a little bit late, but we turned them in.

Q. Are those nominations basically flat with the previous six-month allowable period for the previous year?

A. Yes, they are.

Q. What other basis does GCNM have for recommending that this Commission accept the proposed allowables? Before you get into that, I guess so that this Commission understands, which pools are of concern to Gas Company of New Mexico?

A. Gas Company is concerned only with the prorated pools in San Juan Basin, which is the Basin Dakota, Blanco Mesaverde, South Blanco Pictured Cliffs and the Tapacito Pictured Cliffs.

Q. Thank you. I interrupted you. You may

go on.

A. I would like to have been able to analyze and evaluate data as to the performance of the pools under the allowables which have been issued. I have not--I've looked at all the data that has been made available to me, but there just is not enough data to evaluate.

One of the things that Gas Company is concerned about is the impact of the coal bed methane gas as it might affect the market for the conventional gas and, more specifically, the prorated conventional gas.

I think Mr. Merrett pointed out that gas production from the state, due to the increased pipeline capacity, has increased, but I believe he said that most of that increase has been taken up by the coal bed methane. And he also pointed out that the production for the first part of the year is atypical due to some of the situation in regard to gas storage, primarily.

But I think this would give me concern, that gives Gas Company concern, that there actually is going to be that much more demand for conventional gas out of the Basin.

Q. You also heard Mr. Merrett's testimony that demand for this year's gas appears to be running at approximately 10 percent higher. Have you reviewed the OCD information on the comparison of monthly average pool allowables versus actual sales?

A. If you're talking about the tabulation that showed production and allowables for the previous three proration periods or allocation periods for the winter months, yes, I've looked at that.

Q. Notwithstanding this higher demand, does it appear that actual production was still less than the said allowables?

A. Well, my observation, looking at this data, is that in the previous two allocation periods there were adjustments made at the request of the producers, and in all those situations, the pool was underproduced by somewhere near the amount of adjustment.

Q. So is it your opinion that if Amoco, Phillips, these other folks are right that demand is actually higher, that the allowables, nonetheless, will be sufficiently high to absorb any increase in demand, that there will still be

sufficient supply?

A. It's my observation that producers will almost invariably overnominate, and I have doubts personally that that demand will increase that much, if any.

MR. CAMP: That concludes our presentation.

CHAIRMAN LEMAY: Thank you. Questions of the witness? Mr. Stovall?

EXAMINATION

BY MR. STOVALL:

Q. My first question, Mr. Lyon, does Gas Company own production in these prorated pools and have correlative rights which it is concerned may be affected?

A. No. Gas Company, to my knowledge, is the only transporter who is still a purchaser in New Mexico.

Q. And it is purchasing gas from the prorated pools, is that correct?

A. Yes, it is.

Q. Its concern, then, is as a purchaser of the gas, not as a producer of the gas whose correlative rights could be impaired by allowing what you would consider an excess allowable, is

that correct?

A. Well, I think that this hearing is to try to determine the market demand for gas. If a purchaser of gas doesn't have some idea of the market demand, I don't know who would.

Q. What is GCNM's market for its gas?

A. Mostly it's domestic.

Q. "Domestic," meaning?

A. Within the State of New Mexico.

Q. One of our 50 is missing? It keeps its gas here?

A. Yes, and it does export some gas, too.

Q. Does Gas Company use--there has been a lot of discussion about the expanded transportation systems. Does Gas Company use those at all? Is there any impact directly on the relationship between Gas Company's business and those--

A. I can't give you a definite answer on that. It is my impression, talking to Gas Company personnel, that a good bit of their gas does go into the expanded facility, but I'm not that familiar with their system.

MR. CAMP: If it would help you out at all, Bob, everybody keeps on talking about this

El Paso. We're one of the partners in the Blanco hub, so we are part of those expanded facilities.

MR. STOVALL: Okay. I think that answers that.

Q. Nominations that the Gas Company has submitted, are they based upon its anticipated sales primarily in New Mexico of gas in purchases? Resale? Is that where it came up with the number?

A. Yes.

Q. How did it come up with the number?

A. It came up essentially with the same nominations they made last year and the volumes that they received last year were adequate, and they think that the same volumes would be adequate for this coming winter.

Q. If allowables or adjustments to the allowables were made as requested by the other parties here for the Northwest, what adverse impact would that have on Gas Company of New Mexico so long as it's able to meet its demand for gas?

A. Well, besides possible contract problems, if you set allowables higher than

demand, it is, in effect, a partial de-proration. And addressing the protection of correlative rights, the prevention of waste or whatever, as you move toward higher and higher nominations or higher allowables than your actual demand, you are moving toward de-proration which is, I think, not entirely in harmony with the statute which requires this Commission to set allowables at market demand.

Q. Speaking specifically to Gas Company of New Mexico, though, does that impair Gas Company's business? You stated they have no production and they're really approaching this as a purchaser?

A. That's right.

Q. So the correlative rights issue is more of a philosophical one that you're expressing on behalf of the company, is that correct?

A. I think in regard to whether proration is in the public interest, Gas Company believes that gas prorationing does provide a benefit to the producers and to the State and to all the parties involved, and to the extent that the system operates as efficiently as possible, I think Gas Company is impacted.

CHAIRMAN LEMAY: Is that all, Mr. Stovall?

MR. STOVALL: I think that's it.

CHAIRMAN LEMAY: I think we can get into subjects not germane to the hearing if we keep going along this line. Any other questions of the witness?

Yes, sir, Mr. Camp.

MR. CAMP: Gas Company will have a short statement at the very end.

CHAIRMAN LEMAY: Fine. Additional questions?

MR. KELLAHIN: May we confer for just a minute?

CHAIRMAN LEMAY: We'll take some questions here from the Commission, while you're conferring.

Commissioner Weiss?

COMMISSIONER WEISS: I have no questions.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. How much gas does Gas Company buy out of the San Juan Basin daily?

A. I don't have that figure. They have nominations for the prorated pools, but as far as the nonprorated pools, I don't have that data.

Q. Do we have copies of those nominations?

A. Mr. Van Ryan has them. I don't know if he's made copies for the Commission.

MR. STOVALL: We've just received them, Mr. Carlson, if you would like to look at them. We haven't had a chance to analyze them or come up with any specific numbers, but there they are.

I would recommend that Gas Company make those an exhibit, to get them in the official record. And we would have no objection to their entry.

MR. CAMP: We'll so move, then. I would have made copies but we just received them this morning.

Q. (BY COMMISSIONER CARLSON) According to these numbers, as I understand this, Gas Company is nominating 3.8 million Mcf per month out of the Basin Dakota and Suntera is nominating, I guess, 3.9 out of this same pool, is that correct?

A. No. I believe that's for the six-month

period.

Q. That's total for the six months?

A. Yes.

Q. Oh, I see. That makes a little bit more sense then. Do you know how much coal seam gas Gas Company is purchasing?

A. No, I don't.

Q. Are they purchasing any, do you know?

A. I don't know.

MR. CAMP: Very little.

COMMISSIONER CARLSON: I guess I have no other questions.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: No questions.

CHAIRMAN LEMAY: Additional questions?

MR. KELLAHIN: Just a few for clarification, Mr. Chairman.

EXAMINATION

BY MR. KELLAHIN:

Q. In the Basin Dakota, what percentage of that prorated gas does Gas Company purchase out of that pool?

A. Out of the Basin Dakota? It looks like probably about eight percent.

Q. Okay. Eight percent out of the Basin

Dakota. What's your percentage of the gas produced out of the Mesaverde?

A. Looks like about the same.

Q. And how about the P.C.?

A. No. Excuse me. Looks like that would be closer to three percent in the Blanco.

Q. In the Mesaverde?

A. Yes.

Q. The Blanco Mesaverde is three percent?

A. Yes.

Q. And the Blanco South Pictured Cliffs?

A. Looks like about 15 percent.

Q. Does Gas Company satisfy its entire market demand for production out of those three prorated gas pools?

A. No.

Q. Do you satisfy part of your market demand with production outside of the State of New Mexico?

A. No, not that I'm aware of.

Q. Has the increased pipeline capacity had any effect on the production levels of production out of those three prorated pools?

A. I don't know.

Q. Have you looked at any of the recent

production for the current proration period and seen how that production tracks the allowables for those wells?

A. Well, this is part of the problem. That data is only available from the statistical report. We do not have data out of the OCD other than from these statistical reports.

Q. For example, the Amoco, Phillips and Meridian witnesses testified that they are seeking allowable levels for this next winter period in the Basin Dakota of the 15 Bcf, and that they have markets for that gas and can produce at that level.

Do you have any information that shows that that's not correct?

A. I don't have any information that corroborates their data. As Mr. Camp brought out, their data for May and June is based on their own production, extrapolated based on their percentage of the production from the pool. But there's no data from the OCD which corroborates that, and if Meridian and Amoco have had a better opportunity to get into the gas market or, for some other reason, has had a higher percentage of production, then that data is severely skewed.

Q. The operator would be in the best position in the current circumstances to know if he's producing his wells at allowables that will meet that market demand set by these proration schedules?

A. As to his own wells, yes.

MR. KELLAHIN: No further questions.

CHAIRMAN LEMAY: Additional questions?

MR. CARR: I just have one, maybe two very brief questions.

EXAMINATION

BY MR. CARR:

Q. Mr. Lyon, I'm trying to understand what it is you have analyzed. I think you indicated in your direct testimony that you didn't have information available to you that would permit you to analyze the impact of recent allowables on a pool-by-pool basis, is that correct?

A. That's correct.

Q. So you have not been able to do that, isn't that right? You have not analyzed--

A. Other than the data that is shown on the schedule that was published by the OCD.

Q. You're aware that there has been an increase in production because of the increased

pipeline capacity out of the Basin, correct?

A. Statewide or basinwide.

Q. Have you been able to determine how much of that might come from any particular prorated pool?

A. I don't even know what percentage of it came from the coal bed methane.

Q. Before you make a conclusion that demand is flat from these pools, shouldn't you know that?

A. Well, I know that Gas Company's demand has not increased.

Q. Do you know of anything that would suggest that the demand presented by, say, Amoco, is incorrect?

A. No, but I don't think that the data is. I don't think we're dealing with whole cloth, and I think you have to bear in mind Mr. Merrett's comments that these months are atypical; they do not conform to the usual trend.

And although I think that trend is probably going to go to a fairly steady volume of gas year around, I do not think that it's typical.

Q. Until we have the whole cloth, we couldn't make a general conclusion about what demand is from any pool, could we?

A. That's true.

CHAIRMAN LEMAY: Additional questions? If not, the witness may be excused.

Are there any others that wish to present testimony in the Northwest?

Okay. We'll go to statements. Since we're still on Gas Company, would you like to make a statement, Mr. Camp?

MR. CAMP: Yes, thank you. Really just a couple of comments. I think Commissioner Carlson, in talking to Mr. Czirr, brought up one of the points that is of concern to Gas Company, and that is that we are talking about a statewide demand and yet we do this allowable on a pool-specific basis.

I think, and it's Gas Company's position, that whenever we set a pool-specific allowable, we have to keep in mind what the statutory authority for this Commission is and what they're required to do.

I think one of the things, when you're dealing with a fungible good, and you realize

that we have interconnected systems out there for gas transportation facilities, we have to look at gas on gas competition.

And this Commission, under 70-2-16, is charged with fixing allowables, and I'll just go ahead and quote, "In fixing the allowable of a pool under subsection C of this section, the Oil Conservation Division shall consider nominations of purchasers," that's us, Gas Company, "but shall not be bound thereby," so you can throw out what we say, "and shall fix pool allowables to prevent unreasonable discrimination between pools served by the same gas transportation facility by a purchaser purchasing in more than one pool."

Therefore, when you hear somebody say, like a Phillips, a Meridian, an Amoco, we have the market and yet you see overall market demand on a statewide basis staying flat, then somebody's getting more gas. You have to look into the factors of: In fact, is a pool going to be discriminated either for or against by increasing allowables? If there's a statewide demand and it's basically flat, and somebody keeps on saying that I can sell more, and I can sell more from this pool, what's the effect on

the other pools?

And to think that it's just that we focus on one pool and say, well, we have two producers in here that say they can market all their gas if you'll increase it, really does not comply with what the statute requires, and that is this discrimination between pools.

And that brings up the second point. We've heard something about correlative rights as if correlative rights is all this Commission can be concerned about. That's not true. Because when you talk about unreasonable discrimination between pools, we're talking about a statewide conservation system that's not concerned about just correlative rights, because that's within the pool, but between pool on pool discrimination, pool on pool preference, purchasing practices that may unfairly benefit one pool to the detriment of another pool. This is what the very statute requires this Division to look at in setting allowables.

There's also been some questions, judging from Mr. Stovall's questions, what does Gas Company care? Setting the market demand is what we're about today. It says, and I quote

here, 70-2-16 (C), just in part, "In allocating production pursuant to the provisions of this subsection, the Division shall fix proration periods of not less than six months and shall, upon notice and hearing, determine the reasonable market demand and make allocations of production during each proration period."

We're going to determine what the market demand is, in part, by considering the nominations of purchasers. We've submitted one, albeit a little bit late and we apologize for that, but we've submitted a nomination. The producers say they have a market, but they're not submitting nominations by their purchasers, that isn't the evidence that they're submitting. They're saying, well, we think we can sell it. We don't have a nomination from the purchasers, but they say, "We think that we can sell it."

That's not something that you're really able to consider. And then they just say, "I have a market, so help this pool out," without taking into effect the fact that this is a fungible good, gas on gas, pool on pool competition does exist, and this state has, I think, a very large interest in a statewide

conservation scheme that has the development of all pools in mind, not just specific pools. Thank you very much.

CHAIRMAN LEMAY: Mr. Carr?

MR. CARR: May it please the Commission, Mr. Van Horn would like to make a brief statement.

MR. VAN HORN: Mr. Chairman, my name is Craig Van Horn. I'm a field superintendent with Unocal in Farmington, New Mexico. Unocal would like to voice their support for Meridian's, Amoco's and Phillips' testimony, and particular support for administrative adjustments in the Basin Dakota of 2 Bcf, the Blanco Mesaverde of 3 Bcf.

Unocal's position on marketing gas is to sell and market everything that we can produce, and we have never had a problem being able to market as much as we can produce. We've just begun a 22-million-dollar new well drilling program, and market analysis indicates we'll be able to market that gas, also. The market analysis was done prior to initiating the program.

The correlative rights issue, I think,

by this infill drilling program, indicated that correlative rights is not an issue. That's the reason for infill wells, is to recover gas that would not be produced by existing wells.

Our new infill drilling program that we're on right now for the next allocation period, we forecast 20 new completions in the Dakota. We have the capability of eight million cubic feet a day. Under the current proposed allocations, they will be allocated 3.6 million, which means they'll be able to produce at 45 percent of their forecast capability. That's in the Dakota.

In the Mesaverde, we forecast 17 new completions. Their capability is 6.8 million per day; but allocations will limit them to 4.2 million, so these completions will be restricted to 62 percent of their capable production.

I think Meridian, Amoco and Phillips have proven that allocations affect the existing wells that are there now, and I think that data indicates an effect on new development wells. Thank you.

CHAIRMAN LEMAY: Thank you very much. Additional statements? Mr. Carr?

MR. CARR: I would like to make a very brief statement on behalf of Amoco.

We've come before you today and we've presented information on a pool-by-pool basis, and we've done that because that's how we prorate in New Mexico. So the information has been presented to you, we submit in a format and fashion consistent with our statutory scheme.

We recognize that purchasers may nominate, but if you look at Order R-8170, you also may take information from anyone else knowledgeable about the gas market, and we submit, as a major producer in the San Juan Basin and these fields, we are a person with that kind of knowledge.

We have come in here and we have presented actual information on what we've produced, we submitted it to you monthly, and we have told you what we believe we need in terms of an allowable so we can meet the market demand. And certainly that is good, competent testimony that you can consider in setting allowables.

On the contrary, we've had the Gas Company come in and, yes, they have nominated, and yes, they've nominated late, and yes, they've

admitted that they don't really know what the demand figures are pool by pool. And when we're looking at setting allowables for the next six months, we submit that to do that you have to look at the demand, and we've provided you the best information we have available, and we would request that you consider it in setting the allowables for these pools.

CHAIRMAN LEMAY: Additional statements?

MR. STOVALL: Just a brief one, Mr. Chairman. Speaking on behalf of the Division, the Division took a slightly different approach this year in making its recommendations and presentation to the Commission. In the past we've attempted to make some adjustments to the historic production data. This year the Division, or this period the Division chose not to do that. It chose to take hard numbers, do the calculations, and then ask for more information from operators.

I just wanted to make the point that because the Division presented some preliminary numbers to this Commission, it did so in anticipation that there would be additional data

submitted and requests for adjustments from industry, be it purchasers or producers. And we are not making any specific recommendations with respect to those adjustments, but simply making it clear to the Commission, and everybody present, that this was anticipated at the time we made our presentation.

I would also state, to keep the issue more simple, that we anticipate also doing pool-by-pool proration and the factors that are within the pools, and there certainly is a relationship between other pools, that it is not prorated pools being used to manipulate nonprorated pools, and that sort of thing.

With respect to nominations by Gas Company of New Mexico, it appears that the nominations and the needs of Gas Company of New Mexico can be satisfied, and that is our concern, to make sure that any demand for New Mexico gas can be met while still protecting correlative rights.

And, finally, I would like to commend those operators who, when they reach their overproduction limits, take corrective action and attempt to bring those pools back within

regulatory limits without enforcement action by the OCD, because that's tough to do and we really appreciate operators who comply with our rules without us having to take further action.

CHAIRMAN LEMAY: Additional statements in Northwest New Mexico allowables?

If not, we'll close that portion of the hearing and open up this afternoon with Southeast New Mexico. Remember, 1:00, upstairs in the OCD conference room. We'll be set up up there.

[The noon recess was taken.]

CHAIRMAN LEMAY: Let's resume. We'll take the easy one first, or we think it might be easy. How about the Justis Pool with Meridian?

MR. KELLAHIN: Yes, sir, that one should be easy; maybe.

CHAIRMAN LEMAY: You may proceed, Mr. Kellahin.

MR. KELLAHIN: Thank you, Mr. Chairman. Meridian Oil, Inc., proposes adjustments for the Justis-Glorieta Pool. We are seeking an adjustment that will provide for this next proration period a minimum allowable of 600 Mcf a day, so that that will be comparable to what has been established after notice and

hearing for the Jalmat and the Eumont Pools.

This is a temporary provision for us with regards to the allowable because Meridian has docketed in an Examiner case to more specifically address this pool. We have asked that prorationing be terminated in the Pool, and until that issue is actually heard by the Examiner and we present the full details of that presentation, we would like to present part of that discussion for you in a summary fashion this afternoon, and recommend that the F1 factor be adjusted so we, in fact, accomplish a minimum allowable for this pool.

One of the items we're still addressing with regards to the Examiner application is the additional allowable is an incentive for additional drilling, which includes infill drilling. And by terminating prorationing we may, inadvertently, preclude ourselves from an infill well. We may have to modify our application, but we're pursuing remedies with regards to the pool before the Examiner, to address our long-term solutions, and today's presentation by Mr. O'Donnell is simply a summary of his engineering study with regards to this

particular reservoir.

TOM O'DONNELL

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. O'Donnell, for the record, would you please state your name and occupation?

A. Tom O'Donnell. I am senior reservoir engineer with Meridian Oil, Inc.

Q. Mr. O'Donnell, on prior occasions have you testified before the Division?

A. No, sir.

Q. Summarize for us your education.

A. I have a bachelor's in science and in petroleum engineering from Texas A & M University.

Q. In what year?

A. I graduated in 1986.

Q. Summarize for us your employment experience.

A. I worked approximately five years with a major oil company out of Lafayette, Louisiana, and have been with Meridian for approximately a year and a half and have worked New Mexico for

approximately 10 months.

Q. During that period of time, have you studied the Justis-Glorieta prorated pool in Southeastern New Mexico?

A. Yes, I have.

Q. In addition to examining the production, have you also been involved in examining the reservoir performance itself?

A. Yes, I have.

Q. As a result of your studies, do you have recommendations to the Commission with regards to allowables to be established for this pool for this upcoming proration period?

A. Yes. Our adjustment that we are proposing would enable infill drilling in the field. The current F1 factor is approximately 154 Mcf per day per 160 acres, and we cannot justify infill drilling at that allowable.

MR. KELLAHIN: We tender, at this time, Mr. O'Donnell as an expert witness.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Directing your attention, sir, to what has been marked as Exhibit 1, would you identify that for us?

A. Yes. This exhibit, the different colors designate the different operators of the pool. The orange outline is the outline of the pool itself, and the different well symbols designate--the triangle is nonmarginal, octagon is marginal, and the plugged wells are identified.

Q. Have you communicated with the other operators in the pool concerning your request not only to terminate prorationing but to establish a temporary allowable that will encourage the additional development you have under consideration?

A. Yes, we have. We have sent notification to all operators, and we are not aware of any objection to our proposal at this time.

Q. Have you received waivers from all operators that offset the nonmarginal wells in the pool?

A. Yes, I have.

Q. Show us on the display how you've identified the nonmarginal wells.

A. The nonmarginal wells, as I mentioned, are in the triangles and the marginal wells are

in the octagons.

Q. Let's turn now to Exhibit No. 2. Give us a brief history and status report on the pool.

A. As a brief history, the Justis Pool was created in January 1950. The proration began in 1954. The last well was drilled in 1981. Prior well to that was drilled in 1972, so, as you can see, there just has not been a whole lot of activity in the field in the recent past.

There are 21 completions with 14 active wells currently.

Q. What is the spacing for the pool?

A. Okay. Its standard proration unit is 320 acres with--and that contains two F1 factors. The F1 factor, the proration units are 160s.

Q. Okay. Turn to Exhibit No. 3 and identify and describe that for us.

A. Exhibit 3 is a spreadsheet listing the seven operators in the pool with the operated wells below each operator, location, status, acreage, and the current average rate that I have on there is according to the April through September 1992 proration schedule, which is

actually lower. It is not a deliverability of the wells, in other words. That is just the average production during those times, which is the summer months, which is typically going to be much lower than the deliverability.

Q. Okay. Turn now to Exhibit No. 4. You've summarized on this exhibit the specific details that have justified, in your conclusion, the request for an increase in the F1 factor?

A. Okay. Briefly, Item No. 1 mentions that we do have the market for the pool, the excess market for the pool. The original prorationing of the pool was instituted in 1954 because the capacity exceeded the demand. That is no longer the case, and we do not see that being the case here in the near future.

Item No. 2, I just state there that substantial changes in the pool production development, purchasing, marketing, have occurred over the history of the pool.

Item No. 3, and probably most important, is the production limitations imposed by the prorated allowables has discouraged and will continue to discourage further developmental drilling, workovers and other projects.

Q. You have some exhibits in the package here to illustrate that item, don't you?

A. Yes, I do.

Q. Go on and finish your conclusions.

A. Okay. According to our study, infill drilling alone is anticipated to add 14 Bcf of gas reserves which would otherwise not be recovered. The increase in the prorated gas allowable will not impair correlative rights.

Meridian has contacted all seven operators in the pool concerning this matter and is not aware of any opposition to this application. We have proposed that prorationing of the pool should be terminated.

Mr. Kellahin also mentioned at the beginning, we are looking at that right now to see, since the standard proration unit in the field is a 320, we will need to study that further to see if we would rather establish a minimum allowable rather than terminating it, since if we do terminate it we will not be able to simultaneously dedicate in the field.

The current prorated gas allowable of this pool is lowest in Southeast New Mexico at 154 Mcf per day for 160. The next highest

prorated gas field is double this amount, which is the Tubb field, I believe.

The current prorated gas allowable for the overlying Jalmat Pool is five times higher at 817 Mcf per day for 160 and is actually shallower, approximately 15 percent shallower.

Sid Richardson has advised Meridian that the proposed increase in the pool production will not adversely affect any well in the pool; in other words, will not backup the sales line pressure.

Q. For the record, what is Sid Richardson's involvement with production in this pool?

A. Sid Richardson is the gatherer of the gas in the pool. We have a signed document from Sid Richardson stating his position in the pool.

Q. Let's turn now to Exhibit No. 5 and have you summarize for us the economics involved that support your conclusion about the additional allowable providing an economic incentive for additional drilling in the pool.

A. Okay. Based on our study, we're estimating reserves of infill wells being approximately 650 million cubic feet per well.

Initial gas price we assume to be $1.41 per MMBTU based on the last 12-month average and held constant throughout the line. 100 percent working interest and 87-and-a-half percent net revenue was assumed.

Completion costs of $339,900. Operating costs, $1,500 a month escalated at five percent. What I'm trying to show here is, at the current rate or the current allowable of 154 Mcf per day, we cannot pay out a project. It is uneconomical to drill, and being that the last well was drilled in 1982, it hasn't been much of an incentive for anybody in the field--in the pool.

At the proposed amount of 600 Mcf per day, a project would have a rate of return of 26 percent and a payout of about three years; so, we're trying to establish an incentive for infill drilling in the field.

Q. Is the minimum allowable that you're proposing for this well, for this pool, consistent with the minimum allowables assigned for wells in other pools?

A. The minimum allowable was established recently for the Jalmat Pool which overlies the

Justis-Glorieta. It's approximately 1,500 feet shallower. That minimum allowable was set at 600 Mcf per day.

Since that allowable has been established, we've noticed an increase in drilling in the Jalmat pool and we have also, according to the latest proration schedule, have noticed that the F1 factor has raised from 600 to 817, indicating a lot of activity and excess production in the pool from nonmarginal wells.

Q. Turn now to Exhibit No. 6 and identify and describe that display.

A. This is an example of an offset well, really the only recent offset well if you want to consider 1982 a recent offset. The Justis BC Federal Com No. 2, which is the offset well, offset the Eaton B 1 WN No. 1. I have the locations marked there and you may reference this plat.

The Eaton B 1 WN No. 1 is located in 12 (E), and the Justis BC Federal Com No. 2 is located in 11 (H), so actually they were drilled in adjoining 40-acre spaces. According to my estimate, the Eaton B 1 WN No. 1--well, let me back up. The cumulative production to date on

that well is 6.9 Bcf. The last production was in February 1990. The cumulative production off the offset well is 622 million cubic feet with an estimated EUR of 1180 million cubic feet. You're looking at an offset well recovery of approximately 17 percent of the offset well.

Q. With this as an example of the success of drilling an infill well in the spacing unit, are there other opportunities to realize additional reservoir recoveries from this pool if there is sufficient allowable incentive to do so?

A. Yes, there are numerous 160-acre spaces within the pool that are undrilled at this time. There are also possibilities of wells that were P & A'd prior to 1970 that we really don't have good records on; that if the incentive was there, we probably would be able to offset those and justify that.

Q. Let me ask you to turn to Exhibit 7 and summarize for us your conclusions concerning the additional reservoir potential from an infill program.

A. We're looking at, based on the 17 percent recovery of these infill wells, the average well, according to our study, the average

well in this pool will recover approximately 3.8 Bcf. We're anticipating an additional--I'm sorry. The anticipated offset recovery, therefore, was 650 million cubic feet, and that's what we based our economics on. The total estimated pool EUR, estimating EURs on an individual well basis and totaling them, is about 84.4 Bcf.

Anticipated additional recovery due to the infill drilling is approximately 14.3 Bcf which, at the current allowable, will not be recovered.

Q. In addition to the infill potential, do you find opportunities to drill spacing units that either have been abandoned or have not yet been drilled in the pool?

A. Could you repeat that?

Q. Yes. You've identified and described for us the incentive that could be realized from an infill program.

A. Uh-huh.

Q. Is there anything else you can do in the reservoir to take advantage of the allowable, working over old wells?

A. Yes.

Q. Drilling new wells that are not infill wells?

A. Yes. Just some of the wells that Meridian operates ourselves, we do see potential in workovers. From the study we have performed, we also see a lot of opportunity, and offset operators in the pool, also, so we do seek workovers, drilled wells and compression projects in the future.

Q. Identify Exhibit No. 8 for us.

A. Exhibit No. 8 is strictly the well that was, I guess, the second to the last well that was drilled, the well that was drilled in 1971. That's the Learcy McBuffington No. 7. It offset the Learcy McBuffington No. 3 and the Langlie Federal No. 1.

Those wells, the Learcy McBuffington No. 3 is an example of what I mentioned earlier, of a well that was P & A'd prior to 1970 and we just, from our records, could not tell whether it efficiently drained the well or not. Langlie Federal No. 1 produced 2.4 Bcf prior to drilling the Learcy McBuffington No. 7. It has produced to date 2.8 Bcf.

The Learcy McBuffington No. 7 came in

and was drilled in 1971, and that well has cum'd 2.9 Bcf. So we're seeing--that's just another example of an infill well being drilled offsetting 160-acre spaces and being a productive, economical well, and recovering gas that would otherwise not be recovered.

Q. On Exhibit No. 9, have you summarized the effects of establishing a minimum allowable in the Jalmat gas field?

A. Yes. What we did is, we just took a look at--because we're trying to establish an incentive here in this pool for infill drilling, so we wanted to take a look at some of the past examples in Jalmat. Considering it's overlying the field, we took a look at that, and we noticed in 86 there were seven wells completed, 87 there were four, 88 there were four wells, 89 is when the allowable was set at 236 and there were 22 wells completed.

In 1990 the allowable was set at 236 and the fall allowable was set at 457. There were 57 wells completed and, in 1990, you can see it was raised to 600 and there were 22 wells completed. So it has worked in that field as far as promoting infill drilling.

Q. Have you solicited verification from your marketing people with Meridian to find out if you have a market for the additional gas that may be produced under your proposed allowables?

A. Yes, Exhibit No. 10 is a signed letter from Michael Wilkinson, regional supply coordinator, stating that Meridian has the excess demand and marketing this gas would be of no problem to Meridian.

Q. In studying this area, do you see that the additional allowable will cause any capacity constraints for gathering production from the pools or taking that gas to market?

A. No. Exhibit No. 11 and also Exhibit No. 12 states Sid Richardson's position in the pool. He states in Exhibit No. 11 that he has reviewed the attached list of leases and/or wells and has determined all the production is currently under gas purchase agreement with Richardson, with the exception of two wells that Texaco operates.

Furthermore, Richardson would have the capacity and be willing to purchase any additional production from the leases should it be available.

In Exhibit No. 12, we estimated the increase from the existing wells to Sid Richardson, and he is stating in this letter that it will not adversely affect any well in the field as far as increasing line pressure and hurting the well's production.

MR. KELLAHIN: Mr. Chairman, that concludes my examination of Mr. O'Donnell. We move the introduction of his Exhibits 1 through 12.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 12 will be admitted into the record. Questions of the witness?

MR. STOVALL: Just a couple of easy ones.

EXAMINATION

BY MR. STOVALL:

Q. You've talked in terms of a minimum allowable which, in the case of the Eumont and the Jalmat fields are permanently set minimum allowables. That's not really what you're asking for I hope here, is that correct, in this hearing? Not the one you have coming up.

A. Correct. What we are asking for here is an adjustment so we could increase our F1

factor to the proposed amount.

Q. For this proration period?

A. Correct.

Q. Do you know what adjustment would need to be entered on Line 3 of Division Exhibit 1 to result in the allowable you're seeking?

A. Yes. I think Mr. Kellahin has it. It is approximately 81 million cubic feet per month.

Q. 81 million cubic feet?

A. A month.

Q. On Line 3?

A. Correct.

MR. KELLAHIN: And we need to verify that. I'm not sure that's quite the right line to put that number in.

MR. STOVALL: The question is, would that be in the pool allowable or would that be the adjustment, and I think he said that would be the nonmarginal adjustment, is that correct?

MR. KELLAHIN: I think the pool allowable becomes 136,000.

MR. STOVALL: That would be approximately right if you had 81.

MR. KELLAHIN: So Line 3 is 136,000, I think.

MR. STOVALL: Line 4 is 136,000.

A. I believe Line 3 is 81,000, roughly and Line 4 would be 136.

MR. STOVALL: I just wanted the numbers to plug in. Thanks.

CHAIRMAN LEMAY: Additional questions of the witness? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Is this gas currently sold at the wellhead to Sid Richardson?

A. This well is marketed by our group. It is just transported by Sid Richardson.

Q. You have a transportation and possibly a processing agreement with Sid Richardson?

A. Yes.

COMMISSIONER CARLSON: That's all I have, Mr. Chairman.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. How deep is it?

A. Roughly about 45, 4600 feet.

Q. Just as a matter of interest, did you use any method besides analogy to determine the

incremental reserves?

A. Analogy was our main method. I guess that would be our only method at this time.

Q. Did you contact the other operators?

A. Yes, we contacted every single operator in the pool. We have received back four waivers from the operators, stating they agree with the amount of increase. Two have not responded, but we did not receive any objection to our letter to them.

COMMISSIONER WEISS: Thank you. That's all I have.

CHAIRMAN LEMAY: I have no questions. Any additional questions of the witness? If not, he may be excused.

Is there anything additional in the Justis field that anyone would like to present? Any testimony or comments? Fine, we'll take that field under advisement.

Gentleman, my records show I've got two left, the Blinebry and the Indian Basin, is that right?

MR. KELLAHIN: That's correct.

CHAIRMAN LEMAY: Let's do Blinebry now. You may continue, Mr. Kellahin.

RONALD J. FOLSE

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. Would you please state your name and occupation?

A. My name is Ronald J. Folse. I'm a senior reservoir engineer with Marathon Oil in Midland, Texas.

CHAIRMAN LEMAY: How do you spell your last name?

THE WITNESS: F-O-L-S-E.

CHAIRMAN LEMAY: Thank you.

Q. Mr. Folse, on prior occasions have you testified before the Commission in the allowable hearings?

A. Yes, I have.

Q. And you testified in the February hearing concerning the Blinebry Pool and its recommended allowables for the summer proration period?

A. Yes, sir, I have.

Q. Have you continued your study of that reservoir and do you have recommendations for the

Commission concerning the allowables for this next proration period?

A. Yes, I do.

MR. KELLAHIN: We tender Mr. Folse as an expert.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Let's turn to your exhibits and identify for me what's marked as Exhibit No. 1A.

A. Exhibit 1A is a letter Marathon mailed out to all operators in the Blinebry Pool, and it identifies the recommendation that Marathon intended to make at this hearing today for an increase in the nonmarginal well F1 factor, from 32,960 Mcf per month to 42,000 Mcf per month.

Q. Summarize for us the basis for the request for additional adjustments in that pool so that it comes up to the 42,000 volume. What's the reason for the adjustment?

A. The reason for the adjustment is in order to allow nonmarginal wells that Marathon operates to be able to produce at the rates they're currently producing at.

Q. What was the adjustment, if any, made to the Blinebry Pool for the current proration

period that we're now in, do you recall?

A. The adjustments? I don't recall the adjustment. The final F1 factor was 38,000 Mcf per month.

Q. Turn now to Exhibit No. 2A and identify and describe this display.

A. Exhibit 2A is the Blinebry Gas Pool Allowables for the period October 1992 through March 1993 as proposed in the preliminary schedule from the OCD.

In the center column, and then in the far right-hand column, is the revisions required to result, as proposed by Marathon, to result in a monthly acreage allocation factor of 42,000.

Q. Do you and the Division agree on the proper number of nonmarginal acreage factors to apply to the pool?

A. At this time, Marathon does agree with the acreage factor of 6.75.

Q. Okay. And the calculation, then, on 2A is simply information to show how to adjust the numbers in order to arrive at the monthly average allocation factor of the 42,000?

A. That's correct.

Q. All right. Let's turn now and have you

identify and describe Exhibit 3A for us.

A. Okay. Exhibit 3A is the Blinebry Pool allocation or allowable for the pool indicated in red on the exhibit. The green curve is the sales value for the Marathon-operated well Lou Worthan No. 9, and then the blue--purple as it's seen here--is the overproduction statistics of the well. And it's for the period January 1989 through June of 1992.

Q. What do you do with this information, Mr. Folse?

A. This information Marathon uses to maintain the status of the production from the Lou Worthan No. 9, and to be able to compare it with the current allowable for the well, and compare the allowable versus sales and the overproduction status of the well.

Q. And this well is one of the wells currently classified as a nonmarginal well?

A. That's correct, yes.

Q. And it's in an overproduced status. How many times overproduced is it?

A. It's slightly over twice overproduced.

Q. Let's turn now to the next display. The exhibit is marked 4A. Identify and describe

that for us.

A. Exhibit 4A is the Blinebry Pool production from the Marathon-operated Lou Worthan No. 12 well. It is the same--similar format as the previous exhibit indicates; the allowable sales figures and the overproduction status for the Lou Worthan No. 12 well.

Q. If the allowable adjustment is made as Marathon proposes for this pool, would there still be nonmarginal wells that are capacity-restricted?

A. Yes, there will.

Q. Who has the other nonmarginal wells in the pool?

A. Based on previous acreage factors of 10.75, we had the operators Hendrix Corporation, of course Marathon, Mobil, Chevron, Arco, Exxon and Texaco, Incorporated.

Q. How did you determine what adjustment was required for this well for forecasting market demand for the next proration period?

A. We looked at production for the period in terms of its deliverability, its capacity to deliver gas, and determined that they were capable of delivering in excess of 42,000. We

then decided to go ahead with the recommendation of 42,000 as an average.

Q. Have you received any objection from any of the operators with regards to this request?

A. We have not.

Q. You submitted this request to the other operators following receipt from the Division of the preliminary schedule that they published for this next proration period?

A. Yes, we did.

MR. KELLAHIN: That concludes my examination of Mr. Folse. We move the introduction of his Exhibits 1A through 4A.

CHAIRMAN LEMAY: Without objection, Exhibits 1A through 4A will be admitted into the record. Questions of Mr. Folse?

MR. STOVALL: A couple of quick ones.

EXAMINATION

BY MR. STOVALL:

Q. Did I hear you say that the pool was overproduced or just some wells in the pool were overproduced?

A. Some wells in the pool, Marathon-operated.

Q. The only other question I've got is how you arrive at the specific adjustment factor. What basis do you have for saying that the demand on production from that pool is likely to go up by that amount, given the trend over the last three years for the pool? It's been underproduced for the last three years during the comparable period. What's your basis for anticipating this higher level of production?

A. The basis for our recommendation is looking at recent performance, in particular since October of 1991, where we're able to--or where the allowables were increased to the 38,000 level. The two wells in particular here, the Lou Worthan No. 9 and the No. 12 are capable of producing, in the early part of that period, over 50,000 Mcf per month.

As seen in Exhibits 3A and 4A, they are still above the 38,000. All the way through June of 1992, the Lou Worthan No. 9 produced 45,044 Mcf in that month, and No. 12 produced 42,745. Therefore, we felt that 42,000 would be--

Q. In other words, what you're looking at is the ability of the better wells in the pool and making the adjustments to increase their

allowable, rather than looking at the total production from the pool in terms of a market demand analysis, if you will, is that correct?

A. That's correct. At this time we were unable to determine exactly which numbers were in the acreage factor and which ones we needed to look at and we weren't able to do a nonmarginal well versus a marginal well evaluation.

Q. Are there market conditions which will cause total production and purchasers from the field to increase over previous like periods?

A. I believe I'm not ready or able to answer the marketing questions.

MR. KELLAHIN: We did bring a marketing expert. Mr. Gilbert is here to address any marketing questions for production from the pool.

MR. STOVALL: That's all I've got, then.

CHAIRMAN LEMAY: Additional questions of the witness? Commissioner Carlson?

COMMISSIONER CARLSON: No questions.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: No questions.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Did you say the current F1 factor is 38,000?

A. Yes, sir.

Q. I'm a little confused on your 42,000 figure. Is there any basis in fact for that or is that just kind of a number that's a little bit below your top-capacity wells but I guess above historical production in the pool?

A. That's correct.

Q. If the pool is underproduced, why would you not overproduce your wells if you need additional allowables? Is this a recent market addition? I know you're not a marketer. What I'm wondering about is, I'm trying to focus that 42,000 figure and compare it to the underproduced status of the pool and the fact that you're not six times over in any well, you're two times over or two or three on the other well.

A. That's correct.

Q. You've got additional allowable right now that you haven't produced, isn't that true, if you're talking about overproduced, underproduced limits?

A. In terms of the two wells we're

discussing here, they are producing over the allowable at the current time.

Q. But you haven't reached your six times where there's a shut-in notice, is that right?

A. That is correct. Right.

Q. Are any of your wells in trouble or are these your most overproduced wells?

A. No, these are the most overproduced wells.

Q. So you could actually overproduce your wells more, given a lower allowable, and therefore have hard information for the Commission to show that you are closer to producing the allowable we've given you in the pool, I guess, pool-wide?

A. Right. The only question that comes into play, then, is the balancing period, which we've got a balacing period coming up the end of March of 93 where, depending on the allowables, we would have to then--well, prior to the end of that balancing period we would have to curtail production from these wells.

Q. Unless you got higher allowables--

A. Unless we got higher allowables.

Q. --based on increased production? You

can't overproduce your wells more, in other words, to justify higher allowables? If you were to do that this six months, you could come to the February hearing, couldn't you, and say, "We're now five to six times overproduced and we've utilized our maximum overproduction"?

A. For these wells in particular, they are producing at their current deliverability rates, maximum deliverability rates.

Q. Right now they are? Which is 38,000?

A. Which is in excess of 42,000.

Q. What kind of decline do you see on those wells?

A. It's approximately 15-percent decline per year.

Q. So you would anticipate they would not be capable of doing that six months from now; they would be seven-and-a-half percent lower?

A. Correct.

CHAIRMAN LEMAY: Any other questions of the witness? You may be excused. Thank you.

Is that all the testimony we have on the Southeast now?

MR. KELLAHIN: I'm going to call Mr. Gilbert for a brief statement on the marketing.

CHAIRMAN LEMAY: Fine.

JOHN P. GILBERT

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. Would you please state your name and occupation.

A. My name is John P. Gilbert. I'm a natural gas marketer for Marathon Oil Company.

Q. Have you testified before in that capacity and qualified before this Commission on prior instances to provide testimony on market information for the Blinebry Pool?

A. Yes, sir, I have.

MR. KELLAHIN: We would tender Mr. Gilbert as an expert in gas marketing.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Give us a quick summary or an overview of the gas market situation in the Blinebry Pool.

A. For the Blinebry Pool, it's a producers' dream out there. You have four or five options at almost any location. You have

the El Paso system, you've got the Warren system. Our wells are nonmarginal wells and tied to Northern Natural Gas, so there are three or four options in the field.

Q. From your perspective, are you in a position to know if other operators are having any kind of difficulty marketing their gas or consciously staying out of market and accruing underproduction for their nonmarginal wells?

A. No, sir. There's no market problem out of the Blinebry Pool whatsoever.

Q. You're in a position to be aware of that?

A. That's right.

Q. You would know that if it was occurring?

A. I think so.

Q. The volume of additional gas that would be produced in the pool if this allowable adjustment is made by the Commission, is that an additional volume of gas that can be marketed?

A. Easily so.

Q. Is there a market demand for gas from this pool that exceeds these allowable requests that Marathon is making?

A. Yes, sir, it is. That's a particularly attractive area to market out of. You have gas that can flow into the El Paso system going west to California, or it can come back in through the Waha hub for delivery into the Texas intrastate markets, or it can stay on the northeast system flowing northeast. So there's plenty of demand and plenty of opportunity to market gas out of this particular area.

Q. If you don't take gas out of this reservoir to satisfy that market demand, where do you get the gas?

A. Well, from other pools we have, we can satisfy the demand. There's plenty of market. I receive phone calls all through the month looking for gas in this area and wanting to know, at all times, if gas is available. So there's plenty of demand in this area.

MR. KELLAHIN: That concludes my examination of Mr. Gilbert.

CHAIRMAN LEMAY: Questions of the witness?

MR. STOVALL: I have a question for clarification.

EXAMINATION

BY MR. STOVALL:

Q. If there's plenty of demand for gas, how come the pool has not produced its allowable up to this point, or at least for this period?

A. I know everything that we have, there's plenty of market for that gas. I can't tell you why others wouldn't be. I don't think they are. I think everything that people are selling out there, there's a market for everything out there. I would be surprised if anybody was having a difficult time marketing their gas out there.

Q. I understand that nobody is having trouble marketing, but my question is, and I'm going to hand you what we've talked about as the table that went out for the last three years' comparable periods. And if you'll look under the Blinebry column, you'll see the allowable is Line 1, I believe, and actual sales and production is Line 2, for each period.

In each case the production and sales is below the allowable; so my question is, why do you need more allowable than say even last year's comparable period, when the pool hasn't sold what it's got available?

A. From Marathon's point of view, obviously, we like to produce our wells at full rate to capture this market or more market.

Q. In other words, you don't think Marathon is the contributor to the pool's underproduction?

A. I can assure you that's not the case.

MR. STOVALL: That's all I need.

CHAIRMAN LEMAY: Additional questions? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Are you selling this gas on the spot market?

A. This particular package here right now is going on spot. This is a package that is pretty advantageous for us because I use gas. I have term market on Northern, and I use this gas as backup gas in case my other market fails for some reason; i.e., a compressor or plant on Northern goes down. So, I use this as my insurance gas to back up, particularly with other markets we have. So this particular package of gas is sold on spot.

Now there is--we're looking at

opportunities to turn this gas up, and they're abundant out there. But this month, in fact yesterday or the day before yesterday yet, I sold it as spot.

COMMISSIONER CARLSON: That's all.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: No questions.

CHAIRMAN LEMAY: I've got one.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Mr. Gilbert, it doesn't fit, and let me tell you why. You say, quote, I think, Marathon likes to produce their gas at full rate, and yet the previous witness testified that you have not reached your six times overproduction limit on any of your nonmarginal wells, and there is some restricted deliverability to Marathon's wells. In other words, you can't produce them more.

If you have the market, have room to produce them more, why haven't you done that? That doesn't fit with what you're saying, that you produce your wells at full rate.

A. I can say that I know these wells have been blown wide open and we've been marketing this gas. We have not had to choke back these

wells particularly, the Lou Worthan 9 and 12 wells.

Q. Then it must be that you are producing them at top rate and there is no restricted capacity at 42?

A. At 38.

Q. At 38, yes. No restricted capacity at 38.

MR. STOVALL: Regulatory restriction, do you mean, Mr. Chairman?

Q. What I'm trying to find, if you're producing them at full-bore and you haven't exceeded the six times over, that then you should not have any unused deliverability?

A. Today, that's correct.

Q. And yet I thought the other witness said--and maybe I'm wrong, I'll have to check the record--that there would be unused deliverability at 42, and yet we're at 38 and there's no unused deliverability.

Do you see where I'm having a problem?

A. I think so. I think that I do. I'm not sure I can address that.

Q. I'm not sure that you can, either. The puzzle doesn't fit; that's all. You see my

problem in trying to analyze both statements.

MR. STOVALL: Let me ask one more question if I might, Mr. Chairman, to see if I can make that more succinct.

FURTHER EXAMINATION

BY MR. STOVALL:

Q. Has your ability to market gas been in any way restricted by the proration system today, been restricted from production as a result of limits, shut-ins required by the Division?

A. Not to date. But I know the two wells, the Lou Worthan No. 9, we're watching it closely. I think we're approaching that point, with two and a half sometimes now, three times now, we're going to be approaching that point pretty soon where we would be forced to shut that well in, at its current rate.

MR. STOVALL: That's all.

CHAIRMAN LEMAY: That's all I have.

MR. KELLAHIN: Nothing further.

CHAIRMAN LEMAY: Thank you very much. We appreciate it, Mr. Gilbert.

Anything else in the Blinebry Field? Statements?

Okay. Let's go to the Indian

Basin-Upper Penn.

MR. CARR: Mr. Chairman, at this time Chevron calls Mark Corley to present testimony concerning allowables for the Indian Basin-Upper Penn Gas Pool.

M. S. (MARK) CORLEY

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. Mark Corley.

Q. Where do you reside?

A. Midland, Texas.

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

A. Currently, as of August 1st, I'm employed by Warren Petroleum, which is a gas processing subsidiary of Chevron. But for the purposes of this hearing, we will dwell on my experience as a gas engineer prior to my new assignment.

Q. And how long have you been a gas engineer for Chevron?

A. Two years.

Q. Have you previously testified before the Oil Conservation Commission?

A. Yes, I have.

Q. In fact, you testified at the hearing six months ago concerning allowables for the current allowable period, is that correct?

A. Yes, sir.

Q. At that time you were qualified as a gas engineer?

A. Yes.

Q. Could you advise us as to what a gas engineer with Chevron does?

A. A gas engineer for Chevron is involved with the obtaining of gas contracts for casinghead gas, and also for hooking up new gas wells to gas pipelines. We work real closely with our gas marketing group on pricing tends, forecasts and production problems. We look very closely at our regulatory reviewing allowables and participate in hearings.

Q. Were you responsible for monitoring the allowables for the prorated pools in Southeast New Mexico?

A. Yes, I was.

Q. Before you became a gas engineer, what department did you actually work with?

A. I worked in the gas marketing group for Chevron in Houston.

Q. Are you familiar with how gas prorationing works in New Mexico?

A. Yes.

Q. And have you reviewed the preliminary allowable estimates for the period October 1992 through March 1993 for the Indian Basin-Upper Penn Gas Pool?

A. Yes, I have.

MR. CARR: Are the witness' qualifications acceptable?

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Mr. Corley, would you state what Chevron's purpose is in participating in this hearing today?

A. First of all, Chevron continues to appreciate the opportunity to provide input to the Commission on setting the allowables. We feel like the current system is very good for our company, and we appreciate the opportunity to provide input.

We're seeking today to provide input on the Indian Basin-Upper Penn Pool. Our testimony will show that we agree with the preliminary F1 factor that was published by the OCD. We feel that that allowable, without an adjustment, appropriately reflects the producing capability of all the wells in the pool and would allow all the operators to produce their proportionate share from the reservoir.

In addition, we do have ongoing workover programs in progress. We feel like for the next six months the preliminary allowable will provide opportunities to evaluate previous workovers and also to continue with our workover program.

Q. In your opinion, will adoption of allowables equal to the preliminary figures promulgated by the Division permit not only the Division but operators to manage their problems within this pool?

A. Yes, I do.

Q. Let's go to what has been marked as Chevron Exhibit No. 1. Would you identify that, please?

A. The main purpose of Exhibit 1 is to

give the relative position, via a bar graph, on May's production. Monthly production is noted on the left axis as Mcf per month.

We are showing monthly production by operator for the 33 active wells in the Indian Basin-Upper Penn. The first bar is Marathon, which we show this bar represents about 35 percent of the field's production or 13 active wells.

The next bar we show is Chevron, which is also approximately 35 percent of the pool's production, or 10 active wells.

Next we have Oryx with five wells or 18 percent. M. W. Petroleum, two wells at eight percent; Texaco at three percent with one well, and in the other column there are two wells included in there.

To reiterate, the purpose is to show what the relative position of each operator is in the field.

Q. All right, Mr. Corley. Let's move now to Chevron Exhibit No. 2. Would you identify this, please?

A. Exhibit 2 is basically a tabular form of the preliminary exhibit prepared by the OCD.

It highlights the calculations involved in coming up with the allowable or the F1 factor.

Q. Now, these figures reflect the Oil Conservation Division figures that were submitted with the docket, is that correct?

A. That's correct.

Q. And today, a slight increase in these figures was announced by the witness for the OCD?

A. Yes.

Q. What impact does that have on your presentation?

A. Actually, we prefer the previously utilized numbers, but we do realize that the new method for determining the allowables was a good move. We think the numbers are more accurate, and considering the impact on our testimony will only be about 165 Mcf per day per 640 acres, we would agree with what the State has proposed today.

Q. Now, how do the figures set forth on this exhibit compare to the actual allowable rates authorized a year ago?

A. For the same period last year, as footnoted on the bottom, we had an equivalent F1 factor of 184,875.

Q. And you are recommending that the figures set forth on Exhibit 2 be utilized in setting the allowable for the next allowable period?

A. Yes, and we would also emphasize that Chevron is not seeking an adjustment to be made to the pool. Both columns are actually equal, and we want to make sure you know that we agree with what the preliminary estimates are.

Q. Anything else you want to present from Exhibit 2?

A. No.

Q. All right. Let's move to your Exhibit No. 3. Would you identify what this is?

A. Exhibit No. 3 is a production plot of Chevron's average nonmarginal well. Basically, we took all of our nonmarginal wells, we took that number and divided by the number of wells to give you an idea of the average production of our nonmarginal well.

Q. How many wells are we talking about here?

A. Three wells.

Q. All right. Let's review this exhibit for the Commission.

A. The basis on which we call the nonmarginal, is they are nonmarginal under the current summer allowable. On the left column we have Mcf per month versus time. The dark colored bar is production average per month. The light colored bar to the right is our forecast for the upcoming allowable period. The line graph with the squares is the allowable plotted versus time.

Looking over the exhibit, we would like to emphasize that Chevron, in the interest of correlative rights, we do produce our wells at constant rates during the summer and the winter periods, so correlative rights is a concern of ours.

In addition, we would like to note some of the anomalies in the production graph. September of 91 indicates a drop in production. That's attributable to a 12-day plant shut in. Moving over to December of 91, that was a six-day plant upset. January of 92, we had another plant upset for six days.

Continuing to the right, in July of 92 we have a shortage in production. That is when we did a workover on one of the wells plotted

there, so we were down for two weeks while the well was being worked over. Continuing to the right, we'll go over the forecast.

The forecast incorporates the results of two workovers and also a planned workover from November of 92. The November of 92 forecast is short because of that two weeks anticipated down time, and we show partial recovery of our workover by January of 93.

February of 93 has a drop due to the shortage of the days in the month. March of 93, we have knowledge of another plant outage of six days. So, our forecast is based on results from previous workovers and also with knowledge of upcoming events having to do with the plant processing of the gas.

One more thing, the top bar for the current period reflects a figure of 173,328. That is the allowable that's plotted there.

Q. What does it tell you about that preliminary allowable figure?

A. The preliminary allowable is adequate for Chevron, and to continue with our workover program.

Q. Now, the forecast portion of this

exhibit, is this actually representative of the peak production from each of the wells which are averaging into this exhibit?

A. It's the best we could estimate. Peak production could possibly come in February or March. Typically these workovers require quite a bit of recovery time because we kill the well with water on the back side. Typically it takes a month or two to recover that load water back, so there is some evaluation in time needed to evaluate that.

Q. This graph shows an average for nonmarginal wells. Are any of your wells currently being shut in because of the allowable rate?

A. No.

Q. What workovers did Chevron do in the last six months?

A. We completed a workover which we had talked about at the last hearing on the Elgin Federal No. 1. Production before the workover was approximately 4,200 Mcf per day. Results of the workover are still being evaluated, but at this time it's making approximately 5,000 Mcf. That's an increase of 800 Mcf per day.

The next well we worked on was in July of 92; it was the Vogel Flats Unit No. 6. Production prior to the workover was approximately 4,400 Mcf per day. Current production still under evaluation is 5,400 Mcf per day, which equates to an increase of about a thousand Mcf per day. The forecast allowed for that well to come on up, about 200 more Mcf per day.

Q. Let's move to Chevron Exhibit No. 4. Could you explain to the Commission what this is?

A. Exhibit No. 4 is the same format as the last exhibit. We have Mcf per month plotted versus time. We wanted to show the Commission what our planned workover and its forecast looks like for the upcoming allowable period. We plan to work over the Vogel Flats Unit No. 4. You can note the same production anomalies in the black curves, the plant shut-ins.

Moving on to the forecast, we show a drop in production for November because of the two weeks down time. We show partial recovery by January, then the short month in February affecting our production, and also March, the planned shutdown, lowering our production level.

Q. And workovers that have been performed by Chevron to date, have you been able to return a well or take a well to a nonmarginal status from a marginal status?

A. No.

Q. Let's go now to what has been marked as Exhibit No. 5, and identify that, please.

A. Exhibit No. 5, we talked with other operators in the field and we would like to submit that letter in our testimony. M. W. Petroleum is offering their support to the Commission for the preliminary allowables, as is Chevron.

Q. Did you contact other operators concerning your presentation here today?

A. Yes, we did.

Q. Who did you contact?

A. We talked with Oryx and Marathon, and we were unable to talk with Texaco.

Q. In your experience, has Chevron had any problem marketing the gas it can produce from this pool?

A. Our marketing strategy is very similar to Marathon. We would like to attain long-term markets if possible. We do see a demand each

month for gas from the Permian Basin, as Mr. Gilbert testified, so our marketing is not constrained by a lack of demand.

The only thing that would hinder our marketing efforts would be the gathering processing of the gas. Unfortunately, this gas has to be processed before it's marketable, so we do have a few problems when the plant goes down, being able to recover from these. And to get a long-term market we need a stable supply base.

Q. If you can market all the gas you can produce, why should you have an allowable at a rate less than what any well in the pool can produce?

A. We feel like the allowable should be based on not just solely the best producing wells in the pool; we feel like the other, let's say, 29 wells in the pool are effectively draining their acreage under the current allowable. So we feel like the allowable should be set more on an average basis for the whole pool.

Q. In your opinion, would an order adopting allowable rates equal to the preliminary nominations that were sent out with the Oil Conservation Division docket, would allowables at

that rate be in the best interest of conservation, the prevention of waste and the protection of correlative rights?

A. Yes, I do.

Q. Were Exhibits 1 through 5 either prepared by you or assembled under your direction?

A. Yes, they were.

MR. CARR: At this time we would move the admission of Chevron Exhibits 1 through 5.

CHAIRMAN LEMAY: Without objection, Exhibits 1 through 5 will be admitted into the record. That concludes my examination of Mr. Corley.

CHAIRMAN LEMAY: Thank you, Mr. Carr. Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Chairman.

EXAMINATION

BY MR. KELLAHIN:

Q. I would like to reduce the proposals of the various companies to a daily producing rate simply because the numbers are smaller and it's easier for me. When you take the 175,000 figure you've used, that's about 5.7 million a day?

A. Yes.

Q. Are you aware of Oryx and Marathon's proposal to ask the Commission for an allowable adjustment that would result in the nonmarginal wells producing at 6.5 million a day?

A. Yes, I'm aware of this.

Q. You talked about, in your concluding statements to Mr. Carr, effective drainage of the reservoir. Have you been involved, on behalf of your company, with any of the reservoir studies that were undertaken by the various companies in the Indian Basin-Upper Penn Pool?

A. Yes, sir, I have. There is a task force that Chevron has that I am the chairman of, in which we look at the reservoir management of the Indian Basin.

Q. When you look at the reservoir management, do you agree that Chevron is positioned in the reservoir to be in the most favorable position in the reservoir in terms of its structural position in relation to the water encroachment?

A. Yes.

Q. And what is that answer, then? Are you in the most favorable position, structurally, in

the reservoir?

A. Yes.

Q. As the reservoir is depleted, those spacing units and gas wells that are closer to the water front are going to be watered out first, are they not?

A. That's what's been predicted.

Q. Under that prediction, then, regardless of the allowable schedule set by the Commission, the Chevron wells in the up-structure position are going to be the last producing wells in the reservoir?

A. We can't say that for sure.

Q. But that is the probability with the data at this point in time?

A. Predictions are predictions. Chevron's well could water out within the next few months just as well as one of Marathon's. The water table is very hard to predict where it's going to go.

Q. When we look at marketing of the gas, if the allowable were set at the 6.5 million a day, if Chevron had the capacity to produce at those allowable levels, would you have a market for that gas?

the reservoir?

A. Yes.

Q. As the reservoir is depleted, those spacing units and gas wells that are closer to the water front are going to be watered out first, are they not?

A. That's what's been predicted.

Q. Under that prediction, then, regardless of the allowable schedule set by the Commission, the Chevron wells in the up-structure position are going to be the last producing wells in the reservoir?

A. We can't say that for sure.

Q. But that is the probability with the data at this point in time?

A. Predictions are predictions. Chevron's well could water out within the next few months just as well as one of Marathon's. The water table is very hard to predict where it's going to go.

Q. When we look at marketing of the gas, if the allowable were set at the 6.5 million a day, if Chevron had the capacity to produce at those allowable levels, would you have a market for that gas?

A. Yes.

Q. What is the criteria that Chevron uses to determine that the allowables should be set at the 173,000 number, the 5.7 million a day number?

A. We basically look at the workovers we have planned and also how the other wells are performing in the field to try to see how that allowable is going to affect production in the upcoming months.

Q. If the allowable is set by the Commission at the higher rate requested by Oryx and Marathon, the 6. million a day in terms of reservoir share, do you see any impairment of the correlative rights of Chevron if that occurs?

A. Yes, we do. We feel it's too high.

Q. Describe for me how you would be impaired.

A. We feel like it is a drainage situation and that through further investigation that we could probably show that there is a drainage concern.

Q. Correspondingly, if the allowables are lower, then regardless of the drainage component in the reservoir, Chevron will get the most gas out of that reservoir, would it not?

A. Rephrase your question for me.

Q. I'll see if I can repeat it. Let's go back to the drainage issue. Let me try it this way. Has the reservoir study undertaken by the working interest owners quantified the amount of drainage that occurs at various producing rates?

A. Basically, it shows that the reservoir is not homogeneous, and that each well is going to have an individual deliverability. And if you want to base allowables that assume that all wells are going to produce equally, then it would be wrong for this reservoir, in Chevron's opinion. We feel like in future hearings, if we do get the drainage, we may consider adopting a deliverability formula for this pool, if we have constant problems with who can produce what and the best well setting the allowables.

Q. Am I correct in remembering the status of that study at this point shows that the greatest ultimate recovery is achieved in the reservoir if the well is produced at capacity?

A. What do you mean by "capacity"? Is that when everybody puts compressors on, or the plant inlet compression is set at a certain level or-- Basically, there are a lot of factors

involved in this reservoir that has to do with this plant and how the deliverability is affected at the wellhead.

Q. Remove the surface limitations of production from the reservoir. Assuming absolutely open flow of these gas wells. Am I correct in remembering that the greatest ultimate recovery is achieved in this reservoir if those gas wells are produced at capacity?

A. I wouldn't agree to that. Chevron does not agree that it's in the best interest of all the operators to accelerate production.

Q. At the allowable level that you're proposing without an adjustment, will you have any of your nonmarginal wells that are curtailed below their capacity to produce?

A. It depends on the workover results. We possibly could if we were a little bit more successful. With our workover program, we hope to obtain better results, but the first two wells we've done just does not justify going for an allowable that is based on a forecast that we can't stand by. So, we hope in the future to be very successful with our workovers, but it's possible that we could be constricted.

Q. Current situation without the workovers, then, none of your nonmarginal wells are going to be curtailed if the Commission adopts your proposed level of allowables?

A. Not considering-- It's tough to look at, without considering the workovers. The workovers have already been done. We will do the workovers we have planned.

Q. Without that additional deliverability factor in the wells based upon these workovers that are being undertaken, the current status is that you don't have any well going into the next proration period that is going to be curtailed if we establish the allowables at 5.7 million a day?

A. We could possibly if we didn't have that plant shut in. We had to account for that. I wish my line would have been above the bar, but with a short production month in February and also the March down time, the pool itself is going to be short.

When you start looking at the winter allowables for next year, you're going to see that sales are down because of that.

Q. If the Commission adopts the Oryx/Marathon proposal at 6.5 million a day, then

for your spacing units you're going to generate some excess allowable, some underproduction credit, if I can characterize it in that fashion?

A. We don't agree with it but we would continue to produce our wells because we feel like it's a correlative right situation.

Q. Doesn't that differential, between the allowable assigned and what your wells will do, provide the economic incentive for Chevron to do what Oryx and Marathon have already done?

A. We feel it's too high. We don't need that much. The preliminary allowable estimate, as we've already shown through testimony, is adequate.

Q. Describe for me, without prolonging the discussion, what causes you to reach that conclusion that that allowable is reasonable?

A. We looked at all the data, we prepared our exhibits, we've already presented testimony. You can see from our nonmarginal wells and our forecast that we have actually been very conservative because the 5,700 is still very adequate for us. We feel that our exhibits and our testimony stand alone.

Q. Is that number affected by market

demand?

A. Not as much as has been portrayed today. There's other factors. We feel like there are some things that influence marketability just besides price, and that's the pipeline capacity, whether you have to be restrained by a processing plant, if you have down time on the wells. There's a lot of things to do with marketability besides just price.

Q. Will the lower allowables allow Chevron to maintain a competitive advantage in the reservoir because of its structural position, that you wouldn't enjoy if the allowables were higher?

A. No.

MR. KELLAHIN: No further questions.

CHAIRMAN LEMAY: Thank you, Mr. Kellahin. Additional questions of the witness?

MR. STOVALL: I just have a couple.

CHAIRMAN LEMAY: Mr. Stovall.

MR. STOVALL: The first one is just in case I get the opportunity to meet Mr. Kellahin in district court in Carlsbad at some time.

EXAMINATION

BY MR. STOVALL:

Q. I want to make sure that we understand that--you've referred to the 173,000 acreage factor for monthly, and I think your testimony was that you understood that we had to make an adjustment based upon correction of production data--

A. Yes.

Q. --and we're now using 178,000. And where you've referred to 173, can I substitute 178 in there throughout your testimony?

A. Yes, you can. Most of it was attributed to marginal production, so the adjustment, basically, was just marginal wells.

Q. Okay. The second question is a more fundamental question. Am I correct in the understanding that you are objecting to setting allowables based upon the highest capacity well, because that, then, gives those wells the potential to drain offsetting proration units and produce more than their fair share? Is that the fundamental underline, why you want to set it at the average level that you're talking about?

A. We basically think the reservoir is better managed. If you look at the acreage, we think the wells that are marginal effectively

drain their acreage. If they weren't, you would be seeing a lot of infill drilling. Is there any infill drilling going on? We've already seen this at some of the other Northwest pools that incorporate infill drilling, if they're not being drained, but I haven't heard of any wells that have been drilled on 320s, of recent.

Q. And by implication, the really high capacity wells are capable of draining more than their acreage, is that correct?

A. Yes.

MR. STOVALL: That's all I have.

CHAIRMAN LEMAY: Additional questions? Commissioner Carlson?

COMMISSIONER CARLSON: No.

CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: Yes, I have a couple.

EXAMINATION

BY COMMISSIONER WEISS:

Q. When you speak of workovers, what type are they? What do they do?

A. In the Helbing (phonetic) Federal well, we just changed out the tubing. Basically it had 2-3/8-inch tubing and we changed it out to

2-7/8. We're actually decreasing the friction loss. Bigger size pipe allows for more production. It had a small stimulation, but no additional perfs were needed. We felt like the wellbore was open in all the zones.

The other well, we went to a 3-1/2-inch tubing string on it. We did open some additional pay on this well, a small acid job. That's the type of work there. They're running about 150,000 apiece.

Q. There's general agreement that all the wells are hydraulically connected in this pool?

A. Generally, yes.

Q. Has there been any attempt to unitize it?

A. Yes. This unitization effort was not successful because, in a gas reservoir, you're required to get 100-percent participation and Marathon's attempt failed because of operators that didn't want to participate.

Q. And, on the drainage issue, is there a pressure history to support your observations?

A. We have some pressure data, but it's not as good as we would like to make a good conclusion. We do have shut-in calculated

deliverabilities. We do, for the State every year, our annual shut-in test, but the historical data is kind of hard to come by on pressure.

COMMISSIONER WEISS: No other questions. Thank you.

CHAIRMAN LEMAY: Maybe I just need to get your clarification on a point.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. You alluded to marginal wells. A marginal well in this field would be like a pretty good well in most fields since we have an allowable of five million plus a day?

A. About 4,000 a day.

Q. So a marginal well isn't the normal concept of marginal wells?

A. No.

Q. But you say the allowable is strong enough that these are good, economic wells that can drain their proration unit, but as you increase the differential between the allowables we give and what these wells are capable of producing, you increase the chance for violation of correlative rights, is that what you're saying, because the superstars can drain the

marginal wells easier?

A. If you base the allowables on the best wells of the field, you're looking at four or five wells out of 33 wells, we do feel like there is some drainage situation problem there as far as correlative rights, yes.

Q. That's what I'm trying to get at is your testimony that as you increase the allowable, the chance of--maybe not "chance," but the ability of the marginal wells to protect their acreage decreases?

A. Yes.

Q. Okay. I thought I understood. I just wanted to--

A. Unless we're talking about a homogeneous reservoir where everything's equal, and we're not.

CHAIRMAN LEMAY: Okay. I have no further questions. Additional questions? You may be excused.

MR. KELLAHIN: To expedite matters, Mr. Chairman, Mr. Folse and Mr. Gilbert have previously been sworn and would be continuing under that oath, as you have qualified each gentleman as expert in his respective field.

CHAIRMAN LEMAY: They've been both so qualified, so you may continue, Mr. Kellahin.

RONALD J. FOLSE

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Folse, let me direct you, sir, to what has been marked as Marathon Exhibit No. 1. Would you identify that for me?

A. Exhibit No. 1 is a map of the Indian Basin field, and it indicates the--it's an operator map indicating the operators for various sections in the field. The spacing for the field is on 640-acre spacing.

It shows the current eight operators in the field in the productive area with the productive acreage right now.

Q. What's identified by the green dots on the display?

A. The green dots represent the nonmarginal wells as Marathon believes they are in the current proceedings with the acreage factor of 5.49.

Q. You have not yet verified with Mr. Van

Ryan that the wells he has utilized to get that acreage factor are the same ones that you show on this display?

A. That's correct.

Q. Let's talk about the reservoir in general. Have you participated and been involved in reservoir engineering analysis of the Indian Basin Pool?

A. Yes, I have.

Q. And you've previously testified before the Division concerning unorthodox well locations in this reservoir? Were you not involved in doing some of the calculations with regards to that work?

A. Yes, I have been.

Q. So, in addition to studying prorationing, you have looked at the reservoir itself?

A. Yes, I have.

Q. Characterize for me, if you will, in a general way, the relative positioning of the wells among the operators in terms of their structural position.

A. In terms of the structural position, the reservoir, the shallowest part of the

structure is on the western flank of the field. As you go forward to the east, or toward the right on the exhibit, you're moving down structure. And, in general, the majority of the acreage--several of the acreage locations indicated in yellow, which is Marathon-operated, are along the eastern edge, which is close to water encroachment.

On the other hand, the acreage operated by Chevron, in particular indicated in red, the Mobil Flats unit in particular, several sections that are further up structure.

Q. Is it a fair characterization that as the water migrates through the reservoir that the Chevron gas wells will be the last wells producing in the Indian Basin-Upper Penn Pool?

A. That is correct, yes.

Q. Describe for me what is your recommendation for an allowable for the next proration period for this reservoir. What level of allowable are you seeking?

A. We're seeking a level of allowable to allow for the wells that Marathon has currently worked on in the past year and a half, to be able to produce at sufficient rates to not become

overly produced during any producing period.

Q. Do you see any opportunity to impair correlative rights or cause drainage among wells if the allowables are assigned as you propose to have them assigned?

A. I do not.

Q. Turn now to Exhibit No. 2. Would you identify and describe that display for us?

A. Exhibit No. 2 is the same aerial format with the operators indicated. The green squares indicate what Marathon believes to be the wells that well work has been performed during the period 1991-1992 to the current time, by the operator.

Q. Generally describe what has been the level of activity by the other operators in the pool in the recent past.

A. As can be seen in the acreage colored yellow, operated by Marathon, Marathon has performed work on seven wells during that period of time, Oryx has performed well work on five wells, and Chevron has performed work on two wells in the field.

Q. Turn now to Exhibit No. 3. Would you identify and describe that for us?

A. Exhibit No. 3 is a letter from Marathon to all the operators in the field that was faxed to them on August 24, 1992, advising them of our intention to request an adjustment to the allowables from what was proposed by the preliminary schedule to a value of 197,600 Mcf per month.

Q. All right, sir. Let's turn now to Exhibits 4, 5, and 6. Before we go back and identify these displays and talk about the information and conclusions, tell us what we're looking at.

A. We're looking at an exhibit, Exhibit 4, which is a tabulation of gross production from the wells from the period October 1990 through March 1992 for all the wells in the Indian Basin field in the Upper Penn reservoir.

Q. As we move from Exhibit 4 to 5 to 6, what is the difference?

A. As we move from Exhibit 4 to 5 to 6, the difference is, first, Exhibit 4 is based on the acreage factor of 5.49. Exhibit 5 is based on changing the acreage factor to 4.92, and Exhibit 6 is based on revising the acreage factor downward to 3.92.

Q. All right. Let's talk about the acreage factor adjustments. What has caused you to do three different spreadsheets doing three different acreage factor adjustments?

A. The reason for doing this evaluation, as we currently see it, there are six wells that are involved and the acreage factor is 5.49.

Q. You believe those wells to be the ones identified on Exhibit No. 1?

A. That's correct.

Q. Okay.

A. In reviewing the data, in particular there's a well that's currently, from production information, is not capable of producing its allowable at the current time.

Q. Which well is that?

A. It is the well in Section 1 to the south. It's the Musselman-Owen & King well. It's on the exhibit. It is the one to the far east side.

Q. It's identified in the purple, and in the caption says "MOK"?

A. MOK, that's correct.

Q. All right, sir. Any other wells that might affect how you factor the acreage

calculation in this spreadsheet?

A. Yes. In addition there is a well currently operated by Chevron that appears to be producing under its allowable, substantially, and we feel that based on its current production status that it should, in fact, be reclassified to marginal unless performance would result in its coming back up to nonmarginal well status.

Q. Subject to the Division making a determination of the proper number of nonmarginal acreage factors to use, lead us through how to use the display, Exhibit No. 4, and tell us what conclusions you reach as you go through the calculations.

A. In looking at Exhibit 4, on the bottom part of the page there's a summation of total production for all the wells during each month. In particular, below that there's a section that we're looking at, for example, the average pool production during the period being October 1991 through March 1992. And that's directly under that column heading of October 1991, which can be shown as 3,148,726, and then going on the additional months through March 1992.

With that first line, average pool

production during the period, and taking an average for the six months, you can see to the far right the average is 3,133,473. Okay. At that point in time, as mentioned in previous testimony and also during the earlier hearing this year, you can tell that in December 1991 and in January 1992, there was some plant down time as a result of problems in the plant, which actually was a fire, which resulted in six days down time.

Q. Let me stop you at that point. The Commission, in the last proration hearing, made an adjustment in the schedule to take into consideration the first plant fire that affected the actual production during that prior period that it was using to forecast allowables?

A. That's correct.

Q. What do you recommend the Commission do concerning the plant down time with regards to forecasting the allowables for this next period?

A. I am recommending at this time that as opposed to a six-month average, basing the pool sales on a six-month average, to go to an average for a four-month period, excluding December and January's numbers.

Q. If we do that, we're averaging what months in the calculation?

A. If we do that, we're averaging October and November 1991, and February and March 1992.

Q. And if that is done, then that is consistent with the past action of the Commission in setting the current allowable schedule that we're now in?

A. That's correct, yes.

Q. When you compare the tabulation of information the Division has provided, have you been able to verify and agree with those numbers?

A. I have been able to come close to those numbers, yes.

Q. Describe for us any differences that you find.

A. In terms of the average six-month period?

Q. It's easier to go down the spreadsheet, using the Division's exhibit, and have you show us where you have a different number.

A. Okay. Based on the acreage factor as indicated, 5.49?

Q. Let's keep it simple. Let's use the 5.49.

A. Okay. What Marathon is proposing is an adjustment on Line 3.

Q. What would that adjustment be?

A. Of 105,559.

Q. Do it one more time.

A. 105,559.

Q. Okay. Where else do we make an adjustment?

A. Based on that adjustment in Line 3, the revised Line 4 would be 3,605,030. This is based on our final recommendation for a revised F1 factor.

Q. Yes, sir.

A. That's correct. Then, as a result of the Exhibit 4, looking at the average four-month period for marginal well production from the pool, that number would be 2,520,206. Line 6 would then be revised to 1,084,824. Using the acreage factor on Line 7 of 5.49 results in a monthly acreage allocation factor on Line 8 of 197,600.

Q. How does the actual production from last winter compare to the pool allowables?

A. Looking at the average pool sales?

Q. Yes.

A. During the last winter period?
Q. Yes.
A. The average was 3,605,030.
Q. When you look at the individual months, where does the month of March compare to the allowables?
A. Could you repeat the question?
Q. When I look at the schedule, it appears that March's actual production is higher than the actual allowables assigned for that month?
A. That's correct, yes.
Q. What do you forecast to be the need for gas production out of the pool, in terms of an allowable level? You've concluded it's 197,600. What's the basis for using that number? I've confused you?
A. Slightly.
Q. Your recommendation is 6.5 million a day?
A. That's correct.
Q. You backed in to the 197,600?
A. That's right.
Q. Give me some sense of your argument to tell the Commission why you believe that adjustment is reasonable. What do you base it

on?

A. One of the things it's based on, which is not indicated here on Exhibit 4, is the average four months--the most recent average of four months, April through July, total pool sales that have been 3,698,422 Mcf. Based on that number and with the marginal pool production we've seen during the period and the acreage factor of 5.49, we feel that 197,600, or 6.5 million a day, would be in line with the pool sales.

Q. When you take the 3,698,000 number, and if you used that number and ran it through the calculation to forecast the F1 factor for this winter period, approximately what would that be?

A. If I use the average, the most recent four-month period?

Q. Yes. Actual production from April to July.

A. Which would be the nonmarginal well production?

Q. Yes.

A. Based on 5.49, it would be approximately 1,084,824 Mcf.

Q. Can you conclude from that comparison

that in order to maintain the level of production that you're currently permitted to have, you need to keep allowables set with an adjustment factor that gives you 197,600?

A. That's correct, yes.

Q. That change is not materially different than what is currently being allowed to be produced in the pool?

A. That is correct.

Q. Let's go now to Exhibit 7 and I'll have you identify and describe that for me.

A. Exhibit 7 is a graph of production from Marathon-operated well Indian Basin D 1 for the period January 1990 through June of 1992. This particular well was on marginal well status through September 1991. In October 1991 it was reclassified to nonmarginal well status.

Q. What's the point?

A. As can be shown here, during the period April 1991, as a result of well work performed by Marathon earlier in the year and beyond that, we have been producing over the allowable. And, more recently, through June 1992, we are still exceeding the allowables.

Q. Identify and describe Exhibit 8.

A. Exhibit 8 is a similar graph of production and the allowables for the North Indian Basin Unit 8, and it shows the well production during the period--let's see, even more recently during 1991 to the current time. The majority of the period, then, well production was in excess of allowables.

Q. Exhibit No. 9?

A. Exhibit No. 9 is a similar graph for Indian Basin E-1. This is the third nonmarginal well, as we currently believe exists. It was a marginal well through the period September 1991, when it was reclassified in October to nonmarginal well status.

Once again, Marathon had performed work in early 1991 to try to enhance production, and it can be seen that well production has exceeded the allowables through 1991. More recently, during the winter period, it is not actually exceeding the allowable, but as a result of field operations we had to actually change our operation during the winter to prevent any hydrate-forming problems which would have resulted in additional restrictions on the well, which would not allow it to produce at the

allowable rate.

In April of this year, Marathon has changed out the surface facilities, and we do not foresee the same problem this winter.

Q. Identify and describe for us Exhibit 10.

A. Exhibit 10 is a tabulation of gas volumes from the Well Indian Basin D 1, the first well I discussed. It has the production volumes for the period January through June 1992, it has the sales volumes, and it has the lease use volumes.

The purpose of this exhibit, as we are aware, the NMOCD uses production from the wells with lease use taken out, which is, in effect, a sales volume from the wells. The data I had presented earlier was C-115 information, but it was production information.

As can be seen here, the percentage of lease use to production is less than half a percent, so the numbers are not precise or comparable to the NMOCD schedule, but they are very close.

Q. Are they sufficiently accurate upon which, then, to base adjustments and forecasted

allowables for the winter period?

A. I believe they are.

Q. Summarize for us your company's position with regards to this allowable, the 6. million a day, and contrast that, if you will, to Chevron's proposal at 5.77 million a day.

A. I guess what I would say is Chevron wants an allowable which will be capacity allowable for their nonmarginal wells, and it proposes our request because of our wells having more capacity than theirs, and since they cannot take advantage of the higher allowables we are requesting.

The bottom line is that Marathon is requesting an allowable which would support the work that we have done recently, in the last two years. We're planning on additional work in the next year to enhance production from other wells.

To the opposite effect, I feel that the allowable request we are making will not impair Chevron's ability to market its share of the gas. I believe those are the differences there.

Q. When you look at 6. million a day, will there be wells in the pool that are constrained

to less than their full capacity to produce?

A. Yes, there will be.

Q. The level you have proposed for the allowables, summarize for us again how that compares to past allowables assigned for the pool and why in your conclusion it's a fair and reasonable allowable to set.

A. The allowable, I believe, set for last winter period, was 184,875. We feel that a six percent increase to 197,600 Mcf per day is justified based on the well rates we can see from our wells.

Q. Does that provide a continuing incentive for your company to additionally add capacity and deliverability to the wells and your spacing units in the pool?

A. Yes, it does.

MR. KELLAHIN: That concludes my examination of Mr. Folse. We move the introduction of his Exhibits 1 through 11--did we get that far? I guess 1 through 10, Mr. Chairman.

CHAIRMAN LEMAY: Exhibits 1 through 10 will be admitted, without objection.

Your witness, Mr. Carr.

MR. CARR: Thank you, sir.

EXAMINATION

BY MR. CARR:

Q. How many nonmarginal wells does Marathon operate in the pool at this time?

A. Marathon operates what we believe to be three nonmarginal wells.

Q. Those are the three wells you had production graphs on, your Exhibits 7, 8 and 9?

A. Yes, sir.

Q. Are you seeing kind of a decline in the production rates you're able to achieve with your workover program?

A. Based on the production we've seen, we have not seen a decline in the production. The wells are producing. We performed work on them during 1991.

More recently, we did, early this year, change out the stack pack production units on the lease to enable production through the winter period to go on at minimum restrictions compared to the facilities that were available for the previous 27 years of production life. We believe that as the reservoir pressure will decline, if you don't make any changes to the well producing

system, you will see some decline.

Q. Is it just too early to see a decline developing in any of these wells you worked over in 1991?

A. Yes, it is.

Q. You indicated that one of these wells was producing less than the allowable because of operational considerations? Is that what you said? I believe it was the 2 E well?

A. Yes, sir.

Q. Other than that, are either of the other two nonmarginal wells being restricted in their ability to produce, or being curtailed?

A. No, they're not.

Q. Are any of these wells six times overproduced?

A. No, they're not.

Q. If your allowable rate is set, can you identify for me any well that you would anticipate would be shut in as a result of prorationing during the next period?

A. Toward the end of the next period, the first well we mentioned, the Indian Basin D 1, would be as a result of overproduction coming into this period, would have to be curtailed.

Q. That is if it continues to produce at current rates?

A. That's correct.

Q. Any other well you're aware of would be subject to shut-in, if your recommendation is, in fact, adopted?

A. No other ones.

Q. Aren't you really asking for an abolishment of prorationing in this field by setting the allowable rate so high?

A. I guess I don't have any comment on that.

Q. Would it be appropriate just to set rates high enough so that only the best well in the pool would be ever overproduced to the point it would have to be shut in? Would that be, in your opinion, effective prorationing?

A. I guess my understanding of prorationing, if you end up with an acreage factor of one, then you're simply setting the limits based on the top producing well in this particular field.

Q. During the current prorationing period, are you aware of what has happened to the pool status? Is it more or less underproduced than it

was going in?

A. During the current prorationing period?

Q. Yes.

A. I guess I don't recall what the numbers should be.

Q. Is the pool underproduced now?

A. The total pool?

Q. Yes.

A. I guess we have not tracked or looked at those numbers from a total pool basis.

Q. If we look at just your Marathon wells, you have wells that produce very well and you also have some wells that don't produce that well, isn't that fair to say?

A. That's correct.

Q. Have you looked at all Marathon wells to determine whether or not they are collectively in an overproduced or underproduced status?

A. At the current point in time, the wells that are under the current prorationing period, prior to the adjustment downward to 5.49, those wells were in an overproduced state.

Q. All of your wells?

A. All of those wells.

Q. When you say "all of those wells," you

mean all Marathon-operated wells in the pool?

A. All of the Marathon-operated wells that are nonmarginal wells?

Q. I'm talking about all of your wells now.

MR. KELLAHIN: Object to the question. It's confusing. If it's a marginal well, it can't be overproduced.

Q. All right. Do you have any information on the status of this pool as to where it stands today? Is it overproduced or underproduced, do you know?

A. I don't know.

Q. And yet you are requesting a six percent increase in allowable for the next period?

A. Yes, I am.

Q. You don't know what impact that would have, then, I guess it's fair to assume, on the over or underproduced status of the pool as a whole?

A. That's right.

Q. If we look at your Exhibit, either one, I guess, 1 or 2, the plat of the field, I believe you testified that structurally the Chevron wells

were located higher structurally and therefore were not going to water out at least as soon as the other wells in the pool, is that correct?

A. That's correct. That's in general.

Q. And isn't it because you see a water drive coming in from the east and the northeast?

A. That's correct.

Q. Hasn't BTA just drilled a well in Section 20, south and west of the Chevron acreage that has experienced a high degree of water production?

A. That's correct, yes.

Q. Isn't it possible there might be problems with water development from the south and from the west?

A. Yes, that is true.

Q. I think you've recommended that in setting the allowable, that certain months during the last period be excluded from the base calculation because there were unique physical problems at that time?

A. That's correct.

Q. Haven't you scheduled some plant work in March of 1993, during the next period?

A. For the current proration period which

goes through March of 1993, we have not looked at the possibility of any plant down time. The current forecast of the plant shut-in, for maybe a six-day period, is in conjunction with pipeline restrictions during that period. We're currently working on the schedule. It may or may not occur in March of next year.

Q. If it should occur, would it then be appropriate to assume, in setting--the next time you look at allowables, to throw out these months when there's down time due to plant or pipeline restrictions?

A. In looking at average pool sales over any particular period in time, if the plant shut-in did occur in calculating the numbers in the future, I would propose to exclude that month.

Q. Doesn't that actually result in consistently a little more allowable being assigned every time than actually can be used?

A. It results in the fact that if you don't have any abnormal shut-ins for a major facility, which is a plant in this field, you would be able to produce at that higher allowable.

MR. CARR: I think that's all I have. Thank you, Mr. LeMay.

CHAIRMAN LEMAY: Additional questions of the witness?

MR. STOVALL: I do have a couple.

EXAMINATION

BY MR. STOVALL:

Q. Let's stay on the subject of plant shut-in. Would you have any, rather than simply eliminating certain months from the production, would you have a problem, particularly with the abnormal things, upsets, fires, et cetera, just making an adjustment on Line 3 rather than tinkering with the number of months? Would that accomplish the same result and maintain the integrity of the method of calculation?

A. Yes, it could.

Q. Now, I need to go back over, because I don't think Mr. Van Ryan or myself followed how you ended up with some numbers that you ended up with. If you would turn to our Exhibit No. 1, and whatever exhibit you have used to come up with the numbers you filled in these lines with, and lead me through this again, because I think you were using your Exhibit No. 4, if I

understood?

A. That's correct, yes.

Q. And the bulk of that spreadsheet, that table up at the top, is the monthly production for each of those wells for each of the months based upon C-115s, is that correct?

A. That's correct, yes.

Q. Okay. Let me ask you to go through the Indian Basin-Upper Penn, our Exhibit No. 1, and help me fill in some numbers here. First off, and I realize your calculations were made when the number showing up was 2,768,000 and we have since adjusted that to 3,027,000 Mcf?

A. That's correct.

Q. You're okay there. Do you think a different number should be on Line 1?

A. If, in fact, you stay with the six-month average for October 91 through March 92, I guess I would propose a different number than yours. Was it 3,027,791?

Q. Yeah, I've got 3,027,791. That's what the Division records reflect as being the average monthly production for the pool. What number do you have?

A. I have, based on a six-month average,

that would be 3,133,473.

Q. Okay. Let me go back and see if I'm with you on that. And that's off the bottom right-hand area of your six-month production average off of your Exhibit 4?

A. That's correct.

Q. Do you have any idea what the discrepancy is between that number and the Commission's number? Where did you get that information?

A. This information is based on the form C-115 but it is production numbers and not sales values.

Q. So you're saying the difference is accounted for because we use sales values?

A. Correct.

Q. Which takes out shrink, plant use, et cetera?

A. Well, it takes out lease use.

Q. That's what I meant. I'm sorry. Now, to arrive at the 3,133,000, you used the production column on the C-115, is that correct?

A. That's correct.

Q. Or did you go to the sales column and apply a mathematical formula to go back to the

production column?

A. I used the production column. The information that I used here is due to the fact that we don't get easily obtained all the C-115s. This is the data from the PI Database Retrieval System, and it is production from the C-115s.

Q. Okay. At least I know now how you got the number. It does not appear to be a significant discrepancy in there.

A. No.

Q. Now, nominations, we're not considering anything as nominations from this pool, but you are proposing an adjustment, is that correct?

A. That's correct.

Q. And what adjustment are you proposing, based upon the six months and given the Commission's methodology I think it's virtually impossible for us to try and guess plant outages and adjust the number of months, and I think we have to use this line to make corrections. Do you have a number? Are you having to come back from your four-month and do a mathematical to get back to it?

A. I believe I'm having to come back to my

four months.

Q. If I figured that right, you would multiply your four month times one and a half? Would that get you your six month? or do you divide it by two-thirds?

Take a moment and give me a number to plug in there, because we can't do this without your--do you have a calculator?

Q. The numbers you gave before when you were talking to Mr. Kellahin were off your four-month column, is that correct?

A. That's correct, yes.

Q. Okay. These number of times on your six-month column, are they the ones you want to use? Do we need to do calculations or are they right there?

A. They're actually right there. The first number is 3,133,473, the second number is what I believe to be based on 5.49 acreage factor, the nonmarginal well production average for six months, which is 808,028.

Q. Now, that would be the equivalent of Line 6, is that correct, on your report?

A. That is correct.

Q. Well, let's go to the marginal, because

the way we get to it is we subtract the marginal. Your marginal production you show is 2,325,445?

A. That's correct.

Q. Now that's--let me look at my adjustment table here--that's about, what, 270,000 above what the Division shows, if you look at Exhibit 3 of the Division? That was our adjustment table here.

A. That's correct, yes.

Q. Now, do you account for that difference being the same manner that you're using production, rather than sales, as the number?

A. That's right.

Q. So, then, if you subtract the 2.3 from the 3.1, that's where you come up with your 808,000?

A. That's correct, yes.

Q. Which leads to an average nonmarginal well production of 147,000 for each well?

A. That's correct, yes.

Q. You don't have your adjustments on this line, so we do have to go back and--

A. --make the adjustment--

Q. --and figure out what line to put in on the table that the Division proposes to use.

A. What I've done here, if we assume 5.49 as still the acreage factor, which we are now--

CHAIRMAN LEMAY: Is there some way you could all get together on the mathematics later?

MR. STOVALL: I would be happy for him to submit the numbers later.

CHAIRMAN LEMAY: Let's do it that way. We're taking a lot of time going over someone's numbers with a calculator, and I think there's a better way to spend our time.

MR. STOVALL: I don't mind doing that.

Q. Okay. Given the fact that the difference is based upon production versus sales, so long as the allowable is set using the same number, in other words, if the allowable is based upon sales and the measurement against allowable is based upon sales, is there any problem with using the Division's sales numbers rather than your production numbers to get to the same point?

A. No problem.

Q. Do you have a problem with the numbers the Division has used, as far as their accuracy? I'm not talking about whether you want an adjustment or not. Or have you verified them? Are you in a position to verify those, 3,027,000?

A. They appear to be within reason of the numbers we calculated.

Q. So you will provide for the Commission a number to go on Line 3 to get to the allowable you see there?

A. That is correct.

Q. Just one quick question on your field use. I think you gave an example for one well, is that correct?

A. That's correct.

Q. Do you have any opinion or knowledge as to whether that is a good example to use throughout the field for all operators?

A. This is a particular well that is on wellhead compression. As we can see here in Exhibit 10, it has an average lease use per month of 373 Mcf. Other wells typically that are not on wellhead compression could be as low as 100 Mcf per month. This is probably a high-side number. It could be less.

Q. You think that's higher field use than there may really be?

A. For any one well, yes.

Q. If we use sales all the way across the board, it eliminates the concern about whether an

operator has got a different field use number, would you agree?

A. That's correct, yes.

Q. Finally, am I understanding correctly that Marathon's philosophy, that you are setting forth, is to base the allowable upon the high capacity wells rather than upon some average of nonmarginal wells? You want to let wells produce to capacity?

A. We would like to see them produce close to, if not at capacity, yes.

CHAIRMAN LEMAY: Are there additional questions of the witness? I'm sorry, are you through, Mr. Stovall? I thought you said that was your concluding question.

MR. KELLAHIN: Mr. Chairman, I appreciate the fact you treat your counsel as we are treated.

CHAIRMAN LEMAY: I'm just taking him at his word. He said that was the final question and I was assuming that was.

MR. STOVALL: I do have to have one more because the matter is not in the exhibit. I apologize.

Q. (BY MR. STOVALL) Again, looking at the

table that was circulated, is it not true that the pool has been underproduced for the past three similar periods, assuming those figures to be accurate?

A. That is correct.

MR. STOVALL: Okay. That's my last question.

CHAIRMAN LEMAY: Are there additional questions of the witness? Commissioner Carlson?

COMMISSIONER CARLSON: I hate to ask this, Bob, what did you just give him?

MR. STOVALL: The last question?

COMMISSIONER CARLSON: Yes.

MR. STOVALL: It was the table that has been referred to several times, and it just shows that the pool is underproduced for each period. The actual production and sales for each of the last similar periods, the October through March period for the last three years. And his answer was yes, they have been underproduced for each of those proration periods.

EXAMINATION

BY COMMISSIONER CARLSON:

Q. I think I understand what Marathon wants as far as number adjustments. I don't want

to get into math. I still don't understand why you ran, I guess your Exhibits 4, 5 and 6, why you used the number of acreage factors different in each one, and what you are proposing out of that. Would you please explain that?

A. The Exhibits 4, 5 and 6 are simply to demonstrate the effect of the averaging for the acreage factor as it affects the average rates for nonmarginal wells; to show the effects, for example, of a well that, as a result of reservoir performance or mechanical problems, is not capable of producing its nonmarginal or its allocated share or its allowable; and the effects of lowering the average for nonmarginal wells in the pool.

The other example showed the fact that if an operator so chooses not to perform any well work on a well and the rates are much lower than the allowable, it has a lowering effect on the average for those nonmarginal wells.

Q. But you aren't proposing that a different number of acreage factors be used? You're satisfied with the 5.49, is that correct?

A. I guess I am suggesting that we could, in fact, adjust or change the acreage factors,

even though I am not aware of exactly which wells are in the current, proposed acreage factor of 5.49 from the Commission.

Q. But you don't have a recommendation, or do you have a recommendation for the Commission to follow for determining acreage factors?

A. I believe there is sufficient regulations and all that are available right now for making those changes or adjustments.

MR. STOVALL: Commissioner Carlson, can I ask a question to follow-up on what he raised?

CHAIRMAN LEMAY: Let's have--it's Commissioner Carlson's turn. You're interrupting him.

Q. You're not making a specific recommendation, are you? And if you are, what is that recommendation?

A. I guess one of my recommendations would be that the fact that there is a well not capable of producing at the current time, in particular the MOK well, and that if that is the case for a prolonged long period of time, several months as indicated here in Exhibit 4, that the well be reclassified.

COMMISSIONER CARLSON: I have no more

questions.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. Do your workover procedures vary materially from Chevron's?

A. The workovers Marathon performed during 1991 and early this year were similar procedures, where we were replacing tubing, adding perforations, and in many cases we had to actually add perforations. The method they use, I believe, is not substantially different from the way we do it.

Q. And you mentioned that you saw no problem with the protection of correlative rights if we provide for these higher allowables, but you didn't say why. Could you tell me why?

A. Several areas within the field are currently--there's water encroachment in several of those leases. If we are adversely held down below its deliverability, the water encroachment will continue based on total withdrawal from the reservoir. If we are, in fact, restricted when the well does water out, remaining gas under that lease will not be recovered by that well, and it

will be, therefore, recovered by other wells in the field.

COMMISSIONER WEISS: No other questions. Thank you.

CHAIRMAN LEMAY: I've just got a couple.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. This is a family feud, I understand. You can't get together on unitization, is that right?

A. That's right.

Q. And is it fair to say that Marathon's got the rock and Chevron's got the structure?

A. Correct. Yes, sir.

Q. So, is it fair to say that you may be using our allowable process here to maximize your advantage in the reservoir?

A. Could you define "maximize"?

Q. Yeah. If you've got the rock you can pull it as hard as you can and get more gas. Whose gas, you don't know. You're sitting on top of the structure with poor rock, you're producing at capacity, you can't produce more to suck up the water because you've got some limestone in

there, not good dolomite, so you're stuck.

If you can't get together on unitization, you're here arguing allowables before us to maximize your position in the reservoir, as far as I can see. Why can't you unitize?

A. The area we see, in terms of the Vogel Flats area, has the same potential capacity as the areas we're performing work on.

Q. Why can't you unitize? You've been working on it. You've reached an impasse, right?

A. Yes, sir, we have.

Q. You must have a different view on who is going to get the most if you don't or if you do, or under what parameters?

A. That's correct.

CHAIRMAN LEMAY: I have no further questions. Anyone else have other questions?

MR. STOVALL: I have one administrative question I would like to ask.

EXAMINATION

BY MR. STOVALL:

Q. You've identified--apparently you've disagreed with the 5.49. You think there are some nonmarginal units that haven't been

identified or reclassified yet, is that correct?

A. That's correct.

Q. Would you please, with the Commission's position, identify those to the Division so if there are errors in it--because it is a regulatory function and not an opinion and input recommendation function--if you would help us to identify those, then we can make the appropriate reclassifications if that is appropriate under the rules?

I don't mean here. You can do it after the hearing, just for our purpose.

A. Okay.

CHAIRMAN LEMAY: Get together and have your numbers checked. That can be done.

MR. STOVALL: That's all I'm asking.

CHAIRMAN LEMAY: Additional questions of the witness? If not, he may be excused.

MR. KELLAHIN: To expedite the process, Mr. Chairman, I don't believe that there's any dispute among the operators that whatever gas is authorized to be produced can be produced. Mr. Gilbert is here as a gas marketer, but that would be his testimony and I don't think that's of concern today.

CHAIRMAN LEMAY: I don't see any. Does any commissioner have a problem with that?

MR. STOVALL: The Division doesn't have a problem with that.

CHAIRMAN LEMAY: We don't have a problem with that, do we?

MR. KELLAHIN: Then let me move on to the Oryx presentation.

UNIDENTIFIED SPEAKER: Could we have a 10-minute recess?

MR. KELLAHIN: Do you want to take a break?

CHAIRMAN LEMAY: Let's take a five-minute recess. We want to speed this thing along and get it done. Can you do it in five minutes?

[A recess was taken.]

MR. KELLAHIN: Thank you, Mr. Chairman.

CHAIRMAN LEMAY: Thank you, Mr. Kellahin.

TOM ADAMS

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Adams, would you please state your name and occupation.

A. Yes. Tom Adams, and I'm a petroleum engineer with Oryx Energy Company. I graduated from the University of Texaco in 1983 with a bachelor of science in petroleum engineering.

I have been working with them for coming up on 10 years. I've worked in this particular area for approximately nine months.

Q. Are you a reservoir engineer?

A. Yes. I have been in reservoir engineering since graduation.

Q. Do you participate on behalf of your company with analyzing the Indian Basin-Upper Penn Reservoir?

A. Yes, that falls under my area of responsibility.

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

CHAIRMAN LEMAY: Mr. Adams is so qualified.

Q. Briefly, Mr. Adams, I would like for you to give us a general reservoir description of the mechanics and operation of the reservoir,

specifically as it relates to the Chairman's last questions with regards to whether or not those operators that are less structurally favored to Chevron are going to have reservoir capacity, if you will, that they will achieve an advantage by an adjustment in the regulatory system that sets producing allowables for those wells.

A. Okay. I have been involved in the reservoir engineering work as far as the unitization. You asked a question about the unitization, as far as why it was stalled. That was basically killed by a very small interest owner, Texaco, who did not want to participate, maybe for reasons that they had a small interest, weren't interested, et cetera. It was not killed by Oryx, Marathon, Chevron, et cetera.

It was stalled at that point. It was not stalled because there was a real interest in equity, as far as someone being able to produce more of the gas than any other party.

Oryx has completed a simulation study. I don't want to get into that. It's completely separate from Marathon's. Came up with results that were very similar. And, from what we see of this reservoir and the water encroachment, and

unsteady straight water encroachment, the structural position is advantageous.

Looking at the rock properties of the rock, we see no indication of Chevron having poor rock. They've done two workovers. I believe between Marathon and Oryx, we've done 15. They have still a lot of acreage to do workovers on.

There is an instance where we have one well, Chevron operates 94 percent, I believe, and 87 percent of the other well. We've yet to see workovers done on those wells. We feel like there's additional potential out there on the top of the structure that hasn't been realized. We see no difference necessarily in the rock properties coming off the top of the structure down into, say, our wells or Marathon's wells.

The water encroachment is coming based on our simulation study. What we see is that you can produce at a rate in this field and the water encroachment is going to continue to come. If you produce at a higher rate, the water encroachment is continuing to come at the same rate. Therefore, Mark did mention that you had some heterogeneities. That is true. But, in the overall generality, the water is coming at a set

pace.

You can pull this reservoir at 10 million a day or you can pull it at six million a day. If you don't produce your gas before that water hits you, if you're in a structurally lower position, you will not recover those reserves. Chevron sits with the majority of their acreage at the top of their structure and they have the benefit of that. They do have, from what we see, the same benefit in rock quality to do the work. There may be a lot of difference in the workover procedures and there may be a difference in the tubulars, the production facilities, restrictions of that type. We don't necessarily have data on their wells to quantify that. All we know is there's a lot of potential, and we have the majority interest in some of that and we've yet to see that work being done.

We just wanted to quantify what we were hearing, and your impression was that us and Marathon were sitting in the structurally low position and wanted to increase the rates and take advantage of our position, but we do not see it that way. We see it that we're trying to increase the rates. We've spent, and Rick will

get into substantial evidence on how we've increased the rates. We've spent substantial dollars, and we feel we need a rate of return on that to justify the work we've done, and we feel like there's additional potential out there that has not been realized. That's very brief.

MR. KELLAHIN: That concludes my presentation of Mr. Adams.

CHAIRMAN LEMAY: Thank you. Fine. Questions of the witness?

MR. CARR: I have no questions.

CHAIRMAN LEMAY: Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. Does Oryx have any nonmarginal wells?

A. Not currently at this time.

Q. You anticipate having one?

A. Yes. Rick will be getting into the discussion of the well work we've done, and we anticipate having two to three possible nonmarginal wells at the current rates that we have.

And he'll get into the discussion of how we came up with 6.5 million a day and why we feel that's equitable and why we feel like we're

compromising to come down to that point. We will be cutting back some wells if we do not want to go into an overage position. And that's how we came up with our number.

COMMISSIONER CARLSON: Thank you.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

Q. I'm concerned about correlative rights. Would this field be unitized if it weren't for Texaco? Is that what you said?

A. I'm not going to say that. They were the initial block in our last meeting. There are a lot of obstacles, and as Mark has elaborated, too, it's not a simple, homogeneous reservoir.

Protection of equity would be your hardest point in trying to unitize the reservoir because you've got people at the bottom of the structure who are not going to want to give up their current rate because they realize the water is coming and they want to keep that rate, but the people at the top of the structure are not going to necessarily want to give those people at the bottom any equity. Because we know from our work in simulation that their equity is

short-term.

So, you've got a real difficult situation in trying to get an equity parameter to unitize on. That's going to be the bottom line or hardest point. The people at bottom are not going to want to give up their current cash flow.

Q. Maybe the allowables are too high.

A. Why would you say that?

Q. Sometimes unitization takes place when they go down.

A. Well, one thing you would do if you reduced allowables substantially more, you would shut down all additional work out there. There wouldn't be any incentive for us or Marathon or even Chevron to continue their program. You're going to be costing the state money because you're going to shut down our production and it's going to lower that, and still I don't think that would increase your incentive to unitize.

COMMISSIONER WEISS: Thank you.

A. My personal opinion.

COMMISSIONER WEISS: No other questions.

EXAMINATION

BY CHAIRMAN LEMAY:

Q. Mr. Adams, these wells are great. It's hard to imagine that you need additional incentive beyond four and a half million a day or whatever you want to talk about in terms of our historical allowables to do workovers. Are you making a case that you need higher allowables to do workovers in here?

A. Additional work? In the climate that we're in of short capital, when you go to a manager and say, "I'm going to do this well work and I'm going to have to end up shutting the well in," they'll say, "Why do it?"

Q. Your credibility is getting strained. At four and a half million a day, I think anyone would love to do a workover. I mean, we're talking about a great field with great allowables now, and you want them higher, and you're talking about needing even more for economic justification?

A. To do additional work to support that.

Q. I know. I'm talking about that.

A. You could continue to produce this field at four and a half--

Q. Okay, you've got great prospects if you've got stuff competing with this.

A. We did the workovers.

CHAIRMAN LEMAY: That's all the questions I have.

MR. KELLAHIN: I would like to call Mr. Rick Hall, if there's no more questions of Mr. Adams.

CHAIRMAN LEMAY: Thank you.

RICK HALL

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

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

A. Sure. My name is Rick Hall, and I'm the operations engineer for Oryx Energy Company out of Dallas.

Q. When and where did you obtain your degree?

A. I obtained my degree in 1981 from the University of Oklahoma.

Q. Summarize your employment for us.

A. I began work shortly after graduation with Sun Exploration Production Company, who later became Oryx, and I've worked with them

since, for about 11 years.

Q. Have you performed operational engineering functions for your company with regards to its properties and operations in the Indian Basin-Upper Penn Pool?

A. Yes, sir, I've had the Indian Basin area for about 10 months now.

MR. KELLAHIN: We tender Mr. Hall as an expert operations engineer.

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Let me direct your attention to Exhibit No. 1. Would you identify and describe it for us?

A. Exhibit No. 1 is a letter from Oryx to the Commission asking for the allocation factor, the F1 factor, to be raised to 197,600 Mcf per month in the Indian Basin-Upper Penn Pool, covering the period of October 92 to March of 93.

Q. What is your recommended level of allowable for that pool for this next period?

A. That equates to about a six and a half million a day.

Q. You're in agreement with Marathon on the allowable request level that's ultimately

calculated into the schedule?

A. Yes, sir, we are, and that reflects about a 6.9 percent increase over the same period of last year. And I might add that the year prior to that, a 6.7 percent increase was granted and two years prior to that a 30 percent increase in the allowable was granted, and I believe that this is a reasonable increase and falls in line with previous increases that have been granted by the Commission in the past.

Q. At the last allowable hearing in February of this year, when Marathon requested a higher rate than Chevron, you were opposed to the Marathon rate?

A. Yes, we were.

Q. What changed your mind?

A. We reviewed the Marathon work and saw their success and immediately began studying our wells and mimicked that success; saw the opportunities downhole, mostly.

Then we produced to our management with AFEs to basically copy that work, and we wrote up five AFEs and were successful on all five.

Q. Marathon's success, then, in improving the deliverability of its wells, is not unique to

Marathon and its position in the reservoir?

A. No, sir, it's not. And I believe it's a factor of how you've got your plumbing done down hole, if I may use that term.

Q. Is that an opportunity for additional capacity that could be realized by the wells operated by Chevron?

A. Well, not looking at their downhole conditions, I don't know, but I would assume it would be, yes, sir.

Q. Do you have interest with Marathon in wells operated by Chevron for which you have sought to have this additional work done?

A. Yes, we have.

Q. Describe for us in a general term, before we get to the details, the kinds of work that you have done to increase the deliverabilities of your wells.

A. Okay. First of all we ran what's called a NODAL analysis on each well.

Q. Spell that.

A. N-O-D-A-L. What that is, it checks your efficiency from the sand face or, in this case, the limestone or dolomite face, up through your production unit. From that we modeled our

current conditions and then the program shows us that we can enhance those efficiencies by making changes down hole.

And in this case these included adding perforation density to some of the wells, just a matter of adding, going to four shots per foot versus one shot per foot. In some of the wells we actually added feet of pay. In all of the wells we stimulated, pretty large stimulation. I've heard people referring to small, we did one rather large. It would also entail changing out tubing and increasing the size of that.

That's the down hole. Then you get to the surface and you can take out chokes and upgrade up-size flow lines, compression.

Q. You haven't even gotten to compression in some of your activities?

A. No. We've only got one well on compression out of the five, and we can make these allowables that we're proposing on two of the five wells without any compression at all. We can make more on all five wells, or on the remaining four, if we were to put them on compression.

Q. Can you give us an example of a well

and what rate it was producing at before you did a workover on it?

A. Yes, sir. Some of our wells were making about four million a day, and we went to management and got them up to 6.9 million a day.

Q. You must have scared management to death when you asked them to kill a 4 million a day well?

A. That was exactly right. Which maybe some of the other operators' problems is going to their managers and saying, "Look, I want to work on a four-million-a-day well. But, if I can get you 6.9 million a day, will you work on that well?"

Originally they said, "No." Later they came back and we said, well, Marathon is doing it and it's something that needs to be done, it's something that can be done economically, and we should do it.

Q. Let's turn now to Exhibit 2. Identify and describe that for us.

A. Exhibit 2, I wouldn't say detailed, but a summary of capital outlays and expenditures that Oryx Energy has spent in 1992. This program began in the beginning of April, and I might

mention that we did this program in April not to take advantage of winter gas prices but to actually get the gas on this summer. It turns out that the prices have went up this summer. Normally they go down, but we were still able to do the work.

Q. Is your marketing strategy like Marathon's and Chevron's, that you'll produce without regarding to seasonal adjustments?

A. We're without regard to any seasonal adjustments or price. We're wide open. And obviously in this case prorated to whatever that rate may be.

The well work cost, as the sheet says, $284,000. One compressor, the installation cost was $8,000, and we're currently rebuilding production units at $30,000. We've spent a total of $422,000.

Q. Okay. Let's turn to Exhibit 3. Identify and describe that display.

A. Exhibit 3 is a list of our wells on the first column, by name. The second column is the gas proration schedule given to us by the Commission, April 92 through September 92. I will mention that these were all classified as

marginal wells.

The total rate is 451,000 Mcf per month. Our production estimate through September, after these workovers, will be 737,000 Mcf.

The third column is a production estimate based upon all the wells being on a full six-month period of time, and also limiting two wells, the Conoco State No. 1 and the West Indian Basin No. 1, to the 197,600 Mcf that we propose today. Giving us a total of 851,000, is what we're projecting for the winter period.

Q. If this level of allowable adjustment is approved by the Commission, you anticipate that you'll still have two nonmarginal wells that will be capacity restricted?

A. Yes, sir. And we feel like we could get the other ones to a nonmarginal status by adding compression, if we're given the opportunity to raise the allowable.

Q. If we use the preliminary schedule, the 5.77 million a day, isn't that enough incentive to justify the workovers? Do you need the additional incremental difference when you get to the 6.5?

A. I need the 6.5 to do any additional work.

Q. Why? I don't understand.

A. Because if I'm at 5.9 now, what good would it be for me to do any work if I can only produce 5.7?

Q. When we go to Exhibit 4, what do you have displayed here?

A. Exhibit 4 is a production of Oryx's producing wells or operated wells in the Indian Basin. This is a gross production curve, gas production on the left by month. These are daily volumes.

As you can see, early in 1992 we were producing around 17 to 18 million a day. We're currently at 27 million a day through the summer months.

Q. Okay. Exhibit 5?

A. Exhibit 5 and following, the next five exhibits, are the plots of the individual wells and the results of those workovers. First of all the Bright Federal, I went from four million a day to a little over five million a day.

Q. Exhibit 6?

A. Exhibit 6 is the Bunnel Federal No. 2.

This well basically stayed flat; perhaps a 500 Mcf a day gain. This is the well we've put additional compression on, and the projection at this time is that it will make four million a day. It's currently making two million a day.

Q. All right. Let's go on to Exhibit 7.

A. Exhibit 7 is another workover, the Conoco State No. 1. We went from four million a day up to 6.9 million a day.

Q. This is one of the wells that would be restricted even at your allowable request?

A. Even at our allowable request, and obviously at the Commission's proposed allowable.

Q. Exhibit 8.

A. Exhibit 8, production went from four million a day to six million a day on this well, also, the Federal 28.

Q. All right. Exhibit 9.

A. Exhibit 9, the production on this well, about four million a day to 6.9 million, also one that would require curtailing at our proposed allowable.

Q. And finally, Exhibit 10?

A. Exhibit 10 is a TA'd well that we currently have in the field.

Q. Do you have additional plans for additional workovers or other activity on any of your wells?

A. Yes, sir, we do. We obviously could put the wells on compression that are not at the allowable rate if the allowable rate exceeds an economical margin between what we're producing and what that rate is.

Also, the TA'd well we showed you there, we're planning about a $150,000 workover on that well.

Q. Have you contacted your gas marketing people within your company to determine whether or not they can market and sell this additional volume of gas that is eligible for production if your allowable level is approved?

A. Yes, we have, and that's Exhibit 11. It's a letter from one of our marketing reps stating that there is not a problem with marketing the gas, and there are plenty of markets out there. They're urging us to take advantage of this window of opportunity that the prices have been up, and they expect the prices to continue to be up.

Q. Are you aware of any limitations in

terms of gathering, transportation of the gas through the plant in order to accommodate production at these levels you're requesting?

A. No, sir.

MR. KELLAHIN: That concludes my examination of Mr. Hall. I move the introduction of Oryx Exhibits 1 through 11.

CHAIRMAN LEMAY: Exhibits 1 through 11 will be entered into the record without objection.

Mr. Carr?

MR. CARR: I have no questions.

CHAIRMAN LEMAY: Additional questions of the witness? Commissioner Carlson?

EXAMINATION

BY COMMISSIONER CARLSON:

Q. What's the deliverability on those two wells that you say would be curtailed?

A. Okay. The Conoco State No. 1 is around 6.8.

Q. That translates monthly to-- How much above the proposed allowable is that?

A. Your proposed allowable or mine?

Q. Yours. We don't have one?

A. That calculates to 206,000 versus the

197,600. I might add, that's without compression. That's in its natural state. With a compressor on it, the well could make eight million a day.

Q. At 206,000, that's five percent, maybe, over your suggested allowable, give or take?

A. Whatever. Yeah. Nine.

Q. So you would have to produce many months to reach the maximum of six times overproduced?

A. That may be correct.

COMMISSIONER CARLSON: That's all I have.

CHAIRMAN LEMAY: Commissioner Weiss.

COMMISSIONER WEISS: I have just a simple question.

EXAMINATION

BY COMMISSIONER WEISS:

Q. Do you know how much TA'd wells there are in the field?

A. No, I don't. We have two.

COMMISSIONER WEISS: No other questions.

CHAIRMAN LEMAY: I have no further questions.

MR. KELLAHIN: That concludes our presentation, Mr. Chairman.

CHAIRMAN LEMAY: Thank you. You may be excused.

Additional presentations or statements in the Indian Basin Field?

MR. CARR: No, sir.

MR. KELLAHIN: No, sir.

CHAIRMAN LEMAY: We'll take that one under advisement. Are there any other fields you would like to give any kind of statements on or presentations?

If not, thank you very much, gentlemen. We'll take the allowable hearing under advisement.

(And the proceedings concluded.)

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 Commission 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 September 11, 1992.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ, RPR
CSR No. 4