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NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date_____

AUGUST 29, 1991

Time: 9:00 A.M.

NAME REPRESENTING LOCATION HOUSTON, TEXAS JIM COLLIER AMOCO PRODUCTION CO. Kellohn Kellahn autren SonterFe W (Kellahin Mark Corley Cheuran USA Inc Midland Ty alan Bohlnig Chevron U-SA. Sinc Mudlan TX Bill Hawkin anoco Production Denver Co Eric Nitcher the Galber Mainthe Midland, TK Bill Hastinge Houston TX Marathen MICHAEL WISKO FOFE MABATHON MILLANA , TY MARAHM Ron Folie Midland, TX. Maurice Thingson Dyran G SF Paul West Unocal Farmination Jerry Hoover Conoco Millend TX VICTOR LYON SANTA FE CONSULTANT midland mothon Tom Lowz Elfano, The HI Babe Konduch ElParo natural Bar HOUSTON, TR WILLIAM FOSHAG PODO PRODUCING CO

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STATE OF NEW MEXICO COUNTY OF SANTA FE OIL CONSERVATION DIVISION EXAMINER HEARING Case: 10377 AUGUST 29, 1991 BE IT REMEMBERED, that on the 29th day of August, 1991, the following case came on for hearing. This hearing was taken at the Oil Conservation Division conference room, State Land Office Building, Santa Fe, New Mexico commencing at 9:00 a.m. HUNNICUTT REPORTING

2 1 2 A P P E A R A N C E S 3 OIL CONSERVATION COMMISSION: 4 WILLIAM J. LEMAY, Chairman WILLIAM WEISS, Commissioner 5 GARY CARLSON, Commissioner Designee STATE OF NEW MEXICO OIL CONSERVATION DIVISION: 6 7 ROBERT G. STOVALL General Counsel 8 P.O. Box 2088 Santa Fe, NM 87504-2088 9 10 HALLWOOD ENERGY COMPANIES, MARATHON CORPORATION, CHEVRON USA, INC: 11 KELLAHIN, KELLAHIN & AUBREY 12 Attorneys at Law P.O. Box 2265 13 Santa Fe, NM 87504 BY: W. THOMAS KELLAHIN 14 AMOCO CORPORATION AND UNION OIL COMPANY OF CALIFORNIA: 15 CAMPBELL, CARR, BERGE AND SHERIDAN, P.A. 16 Attorneys at Law P.O. Box 2208 17 Santa Fe, NM 87504-2208 BY: WILLIAM F. CARR 18 AMOCO CORPORATION: 19 ERIC L. NITCHER 20 Attorney at Law Amoco Corporation 21 Law Department P.O. Box 800 22 Denver, CO 80201-0800 23 24 25 HUNNICUTT REPORTING

1	GAS COMPANY OF NEW MEXICO:
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4	Albuquerque, NM 87125
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CHAIRMAN LEMAY: On the record for the Oil 1 2 Conservation Commission hearing. Commissioner Bill Weiss, myself, and for Commissioner of Public Lands 3 Commissioner Baca. And we have Gary Carlson to my 4 5 right. We shall now call case number 10377. The 6 7 Oil Conservation Division calling the hearing on its own motion to accept nominations and other evidence 8 9 and information to assist in the determining the 10 October 1991 through March 1992 gas allowables for 11 prorated pools in New Mexico. 12 Appearances in the case 10377? MR. STOVALL: Robert G. Stovall of Santa Fe 13 14 on behalf of the Division. CHAIRMAN LEMAY: Thank you, Mr. Stovall. 15 16 How many witnesses do you have? 17 MR. STOVALL: I have one witness. Thank you. 18 CHAIRMAN LEMAY: 19 MR. KELLAHIN: Mr. Chairman, W. Thomas Kellahin of the Santa Fe law firm of Kellahin, 20 21 Kellahin & Aubrey. 22 I have three formal presentations to make 23 in this allowable case; one for Hallwood Energy 24 Companies. I have two witnesses, and I want to 25 address the Cat Claw Draw Morrow gas pool.

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1 Marathon Oil Company in association with 2 Mr. Thomas C. Lowry an attorney with that company. I 3 have two witnesses, and we want to address the 4 Blinebry pool. And then finally Chevron USA, and I have 5 one witness and we want to talk about the Eumont and 6 7 the Jalmat pool. CHAIRMAN LEMAY: Thank you, Mr. Kellahin. 8 9 Additional appearances in the case 10377? 10 MS. SMITH: Yes. Sarah Smith on behalf of 11 Gas Company Of New Mexico. 12 CHAIRMAN LEMAY: Do you have any witnesses, 13 Ms. Smith? 14 MS. SMITH: Yes. Victor Lyon may be presenting some testimony today on our behalf. 15 16 CHAIRMAN LEMAY: Okay. One witness then. 17 Thank you. Additional appearances in the proration 18 case? William F. Carr with the law 19 MR. CARR: firm of Campbell, Carr, Berge and Sheridan of Santa 20 21 Fe. I'm entering my appearance for Amoco Production 22 Company. I'm appearing in association with Eric 23 Nitcher, attorney for Amoco, from Denver. We have one 24 witness. I'm also entering my appearance for Union 25

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Oil Company of California. I will have one witness to 1 2 present for you. Thank you, Mr. Carr. CHAIRMAN LEMAY: 3 Additional appearances? Will those witnesses --4 5 MR. STOVAL: Mr. Chairman. CHAIRMAN LEMAY: Mr. Stovall? 6 Before we start, I must MR. STOVAL: 7 8 apologize. The private practice attorneys, since they 9 have problems communicating with their clients, I have 10 just been informed I have two witnesses this morning. 11 CHAIRMAN LEMAY: Two witnesses. Thank you. 12 Additional appearances? 13 (No response.) 14 CHAIRMAN LEMAY: Will those witnesses who 15 will give testimony please stand and raise your right hand. 16 17 (Witnesses sworn.) CHAIRMAN LEMAY: Mr. Stovall? 18 19 MR. STOVALL: On the tradition of my 20 mentors, Messrs. Carr and Kellahin, I'm tempted to give a long-winded, flowing, opening statement, but I 21 22 won't. I'll call my first witness, Mr. Jim Morrow. 23 24 The purpose of Mr. Morrow's testimony is simply to 25 explain the preliminary figures which the Division has

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put out and published with respect to the proposed 1 2 allowables for the prorated gas pools in New Mexico. There are copies of Mr. Morrow's exhibits 3 4 at the back of the room if anybody has not gotten them 5 yet. CHAIRMAN LEMAY: To make sure we've got the 6 7 proper exhibits, Exhibit 1 is the Preliminary Allowable Estimate for Southeast New Mexico. 8 9 Exhibit Number 2 is the Preliminary Allowable Estimate for Northwest New Mexico. 10 11 And Exhibit Number 3 is a Comparison Of 12 Monthly Average Pool Allowables, Sales, Fl and F2 13 Factors. We should each have one copy of each of 14 those items. 15 DIRECT EXAMINATION 16 BY MR. STOVALL: 17 Mr. Morrow, would you please state your 0 name for the record and place of residence? 18 19 Α Yes. My name is Jim Morrow. I live in 20 Santa Fe. 21 0 And what is your current, albeit, short-lived occupation at this time? 22 23 I work with the Oil Conservation Division Α 24 as chief petroleum engineer. 25 Q And your responsibilities in that capacity HUNNICUTT REPORTING

1 include making recommendations to the commission with respect to allowables and to administering the 2 3 allowables system? A Yes. 4 And are you prepared today to make 5 0 6 recommendations for allowables to cover the six-month period beginning October 1, 1991? 7 8 Α Yes. Before we get into specifics, would you 9 0 10 please give a brief explanation of New Mexico's gas proration system? 11 12 A New Mexico's gas proration system briefly 13 involves the assignment of allowables to gas wells in prorated pools so that each well will have an 14 15 opportunity to produce its fair share of the market 16 demand from that prorated pool. 17 0 And why is proration necessary? 18 Α In some of New Mexico's pools, the 19 producing capacity of the wells in those pools exceeds 20 the market demand, and some of the wells could not 21 produce their fair share of that market without 22 proration. 23 How much of New Mexico's gas production is 0 24 actually prorated under the proration pools of the 25 state?

A New Mexico has approximately 16,000 producing gas wells, and approximately 10,000 of these are in prorated pools. There are 14 pools in the southeast part of the state, and four in the northwest that are prorated.

6 In April and May of 1991, the prorated 7 pools produced approximately 29 BCF per month. And 8 that's approximately 44 percent of the total gas well 9 gas in production that's produced in New Mexico.

10 Q Now, the February 28th proration hearing 11 discussed recent changes in the gas proration rule. 12 I'm sure most everybody here is familiar with those, 13 but if you would just review those, briefly describe 14 what they are, and explain how the new system is 15 working.

A All right. In December 1990, the following
recommendations from a committee which had been
appointed by Mr. LeMay, the OCC approved a rules
change for gas proration.

The biggest most noticeable change in the proration system is that -- or was that we change from a monthly allowable system to a system where we would assign allowables for six months. And also the publication of proration schedules was switched from monthly to a semiannual basis.

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It's required considerable time and effort,
 especially on the part of the people that work for Jim
 Plewa in the proration section, Charles Engelke, Donna
 MacDonald, and Monica Romero to make the switch from a
 monthly to a semiannual system.

We got the schedule out for April through 6 7 September. It was some time in May before we were able to publish that. And we have been publishing 8 9 monthly production reports since that time. We still 10 have some work to do on it, but I think the people who 11 are working on it are dedicated to getting the job 12 done and making our system the best that there is 13 anywhere.

We have had some positive feedback from industry concerning the changes that have been made, so we feel like it was a good switch and we're going to get there within the system.

18 Q Getting into the specifics of the proposed 19 allowables for the next six-month proration period, 20 I'd ask you now to turn to Exhibits 1 and 2. These 21 are identified as the Revised Preliminary Allowable 22 Estimates.

Would you explain how these exhibits are
used to help determine the gas allowables to be
established for the following period?

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Yes, sir. I'd point out first of all that 1 Α these exhibits differ slightly from the December 2 tables, which were mailed out on August the 5th. 3 Those tables were based on production numbers that we 4 took at the end of each month from the proration 5 These have been computer-generated, and 6 schedules. they include any late file production or corrections 7 which might have come in subsequent to the initial 8 publication of what production was for particular 9 months. So I feel that these tables are more 10 11 accurate. The Fl and F2 factors that are shown here 12 are very close to those that were shown in the 13 mailout. In some cases they're even slightly higher 14 than those that were published with the letter that 15 16 went out on August 5th. These Preliminary Allowable Estimates for 17 each pool, take Exhibit 1 and start with, say, the 18 Atoka Penn, which is the first pool on the left on the 19 southeast exhibit, the primary basis for the allowable 20 21 for October through March -- October '91 through March of '92 will be the average monthly production for the 22 same period last year, for October '90 through March 23 of '91. And that's the -- that's the number that's 24 shown in line number one under Atoka Penn. 25

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We have a column number two for nominations which have been received and will be received for this upcoming period. Nothing is entered in there yet because we have not gotten very many nominations to this time.

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6 The third column is -- the third in line is 7 the adjustment line, which is used to adjust for 8 overproduction in the pools or to make an adjustment 9 to bring the allowable in line with the current 10 producing rate, or to adjust for data, information, 11 and recommendations which you all made here today from 12 the industry people who will testify.

13 The adjustments then are added to the 14 monthly pool allowable. Excuse me. They are added to 15 line number one of monthly pool sales, average monthly 16 pool sales, to come up with a monthly pool allowable 17 for the upcoming period.

Then we subtract from that an estimate of 18 what the marginal wells will produce. And this table 19 20 is based on marginal production for each pool from April and May of 1991. That's the most recent 21 production we have. I feel that that should reflect 22 what those marginal wells will continue to produce and 23 24 will produce for the October through March period. 25 The 6th line then is the difference between

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1 the total pool allowables and the monthly marginal 2 pool allowables. Line 5 is subtracted from line 4 to 3 come up with an amount to assign to the nonmarginal 4 wells in each pool.

And then seven shows the number of 5 6 nonmarginal acreage factors pool. Essentially, that's 7 the number of nonmarginal wells. And that's divided 8 into the amount of allowables we want to assign to the 9 nonmarginal wells' total to get an Fl factor which is 10 shown in line 8. And that Fl factor is multiplied 11 when we spread out the allowables. It's multiplied by 12 the acreage factor for each individual gas proration 13 unit to get that well's monthly allowable for the 14 period.

On Exhibit 2, this is for the northwest, and when you get down to column number 6, which shows the monthly nonmarginal pool allowable, we have got it there in the same way as we did on Exhibit 1, which was the southwest calculation.

The allowable in the northwest is distributed based on two factors instead of just one. In the southeast, only acreage is used to spread the allowable among the gas proration units. But in the northwest, deliverability times the acreage factor is also used to spread a portion of the allowable among

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the gas proration units.

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2 In Basin Dakota, 60 percent of the nonmarginal allowable is provided up among the gas 3 4 proration units based on the relative amount of 5 acreage they have. So 60 percent of that allowable 6 will be used to determine what the acreage factor will 7 The other 40 percent will be be for those wells. 8 divided up among the gas proration units based on 9 acreage times that well's deliverability. So that 40 10 percent then is divided by the number of nonmarginal 11 acreage times deliverability factors, which is column 12 A, to come up with the F2 factor, which is shown in 13 column 10. 14 And then when we get ready to assign

15 allowables, we'll use this Fl factor and the F2 factor 16 to assign the allowable to the individual well. The 17 F1 will be multiplied times that well's acreage 18 If it has an acreage factor of one, we'll get factor. 19 5.33 million per month for acreage, and then 7.44 will 20 be multiplied times its acreage times the 21 deliverability factor to come up with the amount of 22 allowable that it gets because of this acreage times 23 deliverability.

24

Let's see --

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Mr. Morrow, let me ask you now, have you

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1 made some sort of analysis with your current 2 recommendations for the October to March period with 3 previous historic production records to determine if 4 they make sense or are reasonable?

5 A Yes. That's contained in Exhibit Number 3. 6 This compares the preliminary allowables, the Fl and 7 F2 factors -- where F2 factors are applicable -- for 8 the October '91 through March '92 period to allowables 9 and production, Fl and F2 factors for two previous 10 years.

Look under each pool and you can see what happened in October '89 to March '90; the next year, October '90 to March '91; and the allowable in F1 and F2 factors, which these are preliminary allowables will propose to assign to each pool.

16 Q And based upon that analysis, these 17 recommendations appear to be reasonable at this time. 18 Is that correct?

19 Α Yes, sir. I think they are. The 20 Preliminary Allowable Estimates total 32.9 BCF per 21 month, adding up everything the preliminary allowables 22 will propose to assign in the southeast and northwest. 23 And this compares to a total allowable of 35.8 BCF per month for the same period a year ago, and a total 24 25 production of 31.8 for the year-ago period.

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So we're proposing to assign for allowables 1 2 here with the preliminary allowables than was actually produced during the year-ago period, but it is less 3 than the allowable we assigned for that period.

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Now, have you received any nominations from 5 0 6 transporters or purchasers with respect to the 7 proposed allowables for the upcoming period?

We received some -- just very scattered 8 Α nominations in the various pools. Actually the only 9 pool where we received nominations which even come 10 close to what we have proposed to assign here is in 11 12 the Cat Claw Draw pool where we received nominations 13 for a total monthly allowable of 407,000 MCF on a monthly basis. And that exceeds 161 acres we proposed 14 15 to assign. In all other pools I feel that we've only 16 got partial nominations because they are very low, but we have received some and possibly we'll receive some 17 more here today. 18

And that leads to the next question. 19 0 That in fact under the prior system, 20 21 nominations were the primary if not only input into the system other than production. But under the 22 current system, the hearing today, we're inviting 23 24 additional testimony which might affect the final recommendations that you would make. Is that correct? 25

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That's correct. 1 Α Yes, sir. You're right. 2 Nominations with all the information we've got from industry using the old system, which was primarily 3 4 based on production for two months prior. But as in 5 the case of the February 28th hearing, the appearance 6 indicate that we will receive some suggestions here 7 today which will better set the allowables.

8 Q And then do you have a recommendation for 9 the commissioners for the allowables for the period 10 October 1st through May 1991, through March 1st --11 31st, 1992?

12 A Yes. These preliminary allowables, are 13 starting to place. And they may and probably even 14 should be adjusted based on the testimony of operators 15 and purchasers and others who are here today 16 testifying.

After we hear that, you gentleman decide what adjustments are needed, then allowables should be assigned using these preliminary allowables as a starting place to set the allowables.

21 Q Do you have anything further you would like 22 to add to your testimony today?

A The only thing I'd add is that when I was
answering your question about are the allowables
reasonable, I had just a little more to say.

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1 The April and May 1991 production averages 2 29.6 BCF per month from the prorator. Based on that, 3 29.6 for April and May is fairly close to the 32.9 4 that we can add up here for the prorated pools. And 5 that would be a winter period.

5 So I think that the preliminary allowables 7 are reasonable and adjustments can be made. And after 8 you hear testimony we'll have allowables which are 9 appropriate for that period. And that's all.

MR. STOVALL: Mr. Chairman, I would like to point out that the Burton Flat Morrow pool is contained on the Preliminary Allowable Schedule, and has been carried on the Proration Schedule for the past two years, although it has been under an order of the Division, which effectively deprorated that pool.

And that pool -- that order originally went 16 17 through June of 1991 by the Commission Order establishing the six-month allowable for the period 18 19 that ends in September. That deproration was 20 continued. Whether to make that deproration of the 21 Burton Flat pool permanent or not is subject to a 22 hearing in September. So it may or may not be subject 23 to allowable as proposed based upon the results of that September hearing; however, it is contained on 24 the schedule as required by the Division order until 25

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1 such time as it may be permanently removed or 2 otherwise ordered by the Division. 3 And I have nothing further of this witness. 4 CHAIRMAN LEMAY: Thank you. We failed to 5 qualify Mr. Morrow. He is qualified to testify, and 6 also --MR. STOVALL: I thought that was just so 7 obvious that I --8 9 CHAIRMAN LEMAY: Will you move submit 10 Exhibits 1 through 3? 11 MR. STOVALL: I move to admit and submit 12 Exhibits 1 through 3. Qualify Mr. Morrow. I have 13 nothing further. 14 CHAIRMAN LEMAY: Without objection, those 15 exhibits will be entered into the record. Ouestions 16 of Mr. Morrow? Mr. Kellahin. 17 CROSS EXAMINATION 18 BY MR. KELLAHIN: 19 Mr. Morrow, a couple of points of 0 20 clarification. 21 Am I clear in understanding that the 22 primary objective of the proration system is to set 23 allowables so that they accurately reflect the market demand for the total pool production from that pool? 24 25 Yes, sir. I'd say that is certainly one of Α

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1 the -- possibilities. When we look at the spread sheet that you 2 0 have submitted as Exhibit Number 1, and for an 3 illustration, let's look at line 1 and move over to 4 5 the Cat Claw Draw Morrow pool. 6 Α All right. That line is identified as average monthly 7 0 8 pool sales? 9 That's correct. Α 10 0 How does the Division determine for this 11 spread sheet what are the pool sales on an average 12 basis for that pool? 13 Those come from the records Α All right. 14 contained in our record-keeping system from the C-111. 15 Would you identify what a C-lll is? Q 16 A C-111 is a monthly report filed by a Α 17 transporter to show the amount of gas with what is 18 produced from each well that he took gas from during a 19 monthly period. 20 Is the Division system set up such that you 0 can make a comparison between the C-lll's and the 21 22 operator's monthly producing report, the C-115's to 23 see if they are the same for the pool? Right now you can get the reports and do it 24 Α 25 just manually. You've heard about the ONGARD system

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which is being developed. And one of the goals of 1 2 that system will be to compare the C-111's and the 3 C-115's on a monthly basis using a computer. If an operator can demonstrate that actual 4 0 sales in the pool have exceeded a number reported to 5 6 the Division on the C-111's, then the appropriate place to adjust is in this line 1 of the spread sheet. 7 Α Yes, sir. That would be a good place, or 8 line 3 would be another good place to do it. Either 9 10 one, as long as you get it into the pool allowable.

11 Q So what we're intending to reflect are the 12 actual sales from that pool; regardless of how 13 reported, we want the most accurate number we can in 14 order to have some way to forecast what the past 15 actual sales were from that pool.

Yes, sir. That's the goal. 16 Α And, 17 incidently, one of the things we're thinking about 18 after we get the ONGARD system developed is to actually use C-115 numbers instead of C-111 numbers to 19 20 reflect production and use that in proration as well as on our production records, because we too feel that 21 22 that probably has a chance of being more accurate than 23 operative reports.

24 Q If an operator in this pool since the time 25 we established the summer allowables and prior to us

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setting the winter proration period brings on additional deliverability or capacity in that pool either with new wells or recompletions, where does it go into the system so the additional capacity is accounted for?

6 A In line 3, Adjustments. I think that would 7 be a good place to stick that in.

8 Q The market demand for the pool production 9 is tabulated in what fashion, Mr. Morrow? How is it 10 accounted for on the spread sheet?

11 A The intent was to make line 4 equal to 12 market demands. The total allowable would be assigned 13 to that pool. Our goal for that would be equal to the 14 market demand.

Q The system as we now have it is predicated now on operators, producers, transporters coming to this semiannual meeting and demonstrating what market demand is for their pool production, is it not?

19 A Yes, sir, I think that's a good change -20 in the way we do proration is if we get the input from
21 energy people before we set the allowables instead of
22 after.

Q And so the preliminary allowables today are
intended to be adjusted based upon the testimony today
of market demand for those individual pools.

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That would be my recommendation, yes, sir. 1 Α 2 Let me understand Cat Claw Draw. 0 For example, again, in the docket sheet that was submitted 3 4 to the industry attached to the Notice of Hearing, there is a spread sheet that is slightly different 5 from the spread sheet we have today as Exhibit Number 6 7 1. 8 Do you happen to have one of the spread 9 sheets from the docket, Mr. Morrow? 10 From that August 5th letter? Α Yes, sir. 11 0 12 Let me have yours. I've got mine in my Α briefcase. 13 Again, for explanation, Mr. Morrow, tell us 14 Q the kinds of things that you have amended from the 15 ones sent out in August to the one we have as Exhibit 16 17 1. Not asking each specific item, but simply take an example of what are the changes that have occurred 18 19 between the two spread sheets. Okay. We can go ahead and use Cat Claw 20 Α 21 Draw. Yes, sir. 22 0 23 Since that's one of the ones we were Α 24 talking about. 25 The August 5th letter shows production of HUNNICUTT REPORTING

136,500 MCF. And the Exhibit 1 that the commissioners 1 have shows 146,818, MCF. So that's 10,000 cubic feet 2 more than was shown on the earlier one. 3 The other thing that was adjusted was the 4 monthly marginal pools allowable. When the computer 5 6 went back and got those numbers, it was able to get directions and late-filed reports that were included 7 8 where we had not been able to do that earlier. So 9 that was also about 10 million higher. In line 6, the amount of allowables to be 10 11 assigned to the nonmarginal wells is 68,530 MCF. And 12 dividing that by the nonmarginal acreage factors, the 13 Fl factors for Cat Claw Draw is -- on Exhibit 1 is 14 34,265 compared to 29,106 in the August 5th letter. 15 Line 8 then would represent the monthly 0 16 allowable that's available for a nonmarginal well that 17 has a full acreage factor? 18 Α Yes. 19 So on a daily basis that's approximately 0 20 1.1 million a day? 21 Α Right. 34 million a month. 22 MR. STOVALL: Subject to check. 23 BY MR. KELLAHIN: 24 Exhibit Number 1 is updated through 0 25 approximately what date, Mr. Morrow?

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1 Α Actually, the production numbers are for October '90 through March '91. So the latest data we 2 have in the system at the time this was done, which 3 was August 16th, any revisions of that October through 4 March '91 production information would have been 5 6 included in this. 7 0 Okav. 8 A And the -- as I said, the estimate of 9 monthly marginal pool allowables was based on April 10 and May production since June was not available yet. 11 So those numbers too would have been updated with any 12 late file production reports or any corrections which had been made up until August 16th. 13 14 MR. KELLAHIN: Thank you, Mr. Morrow. 15 Thank you Mr. Chairman. 16 CHAIRMAN LEMAY: Are there additional 17 questions of the witness? CROSS EXAMINATION 18 19 BY MR. NITCHER: 20 Mr. Morrow, my name is Eric Nitcher, Amoco 0 21 Production Company. I have a couple of questions. 22 Looking at your exhibits and making your 23 recommendations as to allowables with the different 24 pools, do you take into account the overproduction of 25 that pool when you make a recommendation as to

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1 allowable?

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2	A Yes, sir. We did. On each pool that had
3	overproduction, and overproduction is just for its
4	comparison of nonmarginal wells and how much
5	overproduction is there. And then the underproduction
6	for nonmarginal wells is subtracted from that, so
7	we're talking about pool overproduction for
8	nonmarginal wells. But where there was
9	overproduction, we did add in some allowable in the
10	adjustment column to take care of that.
11	Q Likewise, do you take into account a pool's
12	underproduction status for the nonmarginal wells?
13	A We didn't on this particular estimate. We
14	did not do that in this case.
15	Q Why not?
16	A These were preliminary estimates, and I
17	suppose if someone else felt that we should take that
18	into account they would bring that into testimony
19	today and tell us about it.
20	Q Is overproduction and underproduction
21	within a pool a sign of pool balance?
22	A Say that again.
23	Q Is overproduction and underproduction
24	within a pool a sign of a pool balance or nonbalance?
25	Let me rephrase the question. If a pool

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1 was overproduced is it out of balance? 2 Α Well, it's an indication that we didn't 3 assign enough allowables to the nonmarginal wells, if 4 as a group they are overproduced. 5 If a pool is underproduced, is it out of 0 balance? 6 7 Α It would be under -- nonmarginal wells will 8 be overproduced. I would point out too in our system 9 there is a mechanism for cancelling underproduction, 10 which is not available for overproduction. It has to 11 be made up either by the assignment of additional 12 wells or by cutting back on what the wells are 13 producing. 14 0 Is pool balance important from a proration 15 perspective? 16 Α I'd say it should be considered. 17 MR. NITCHER: Thank you. No further 18 questions. 19 CHAIRMAN LEMAY: Additional questions? 20 (No response.) 21 CHAIRMAN LEMAY: The witness may be 22 excused. Thank you, Mr. Morrow. Mr. Stovall, you may 23 call your next witness. 24 MR. STOVALL: Mr. Chairman, my surprise 25 witness this morning is Mr. Ron Merrett.

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DIRECT EXAMINATION 1 2 BY MR. STOVALL: For the record, would you please state your 3 0 name and place of residence? 4 My name is Ron Merrett. I live in 5 Α 6 Albuquerque, New Mexico. 7 How are you employed? Q I'm employed as Director of the Office of 8 Α Interstate Natural Gas Markets and I head up the Gas 9 10 Marketing Bureau in the Oil Conservation Division. 11 Would you describe just generally what Q 12 those responsibilities entail; what your division or 13 bureau does? 14 Generally speaking, the Bureau and the Α 15 office of Interstate Natural Gas Markets is intended 16 to provide assistance to the natural gas industry in 17 the state. And we do this by regulatory interventions 18 and on a federal level in Washington and before state 19 commissions and other regulatory bodies. 20 We also act as an informational source for 21 the natural gas industry in the state through 22 publication of a news letter, a series of officer 23 elections, and we have the library available for use 24 by the industry. 25 Is it fair to say that in the course of 0

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carrying out your responsibilities that your bureau
 monitors and tracks natural gas production in the
 state of New Mexico and so you have a good idea of how
 the production trends are moving?

5 A We keep close watch on the statistical 6 information that was referred to in Mr. Morrow's 7 testimony. We also predict the trends in a very 8 limited fashion. We tend to do some forecasting of 9 what is going to happen in the industry, both in the 10 state and nationally.

11 Q Now, is it -- would it be correct to say 12 your understanding of the gas proration system that 13 it's -- what it attempts to do is to predict the 14 future based upon historical performance?

15 Generally speaking, that's right. In this Α state the marketplace determines -- tends to determine 16 17 the demand so that it is, I think, a reasonable approach to say that actual production is in fact 18 reflective of demand. That is the approach that Mr. 19 Morrow certainly has used, I believe, and his 20 21 predecessors too.

22 Q In order to establish a relationship 23 compared to what you are going to testify today and 24 what Mr. Morrow has said, would it be a fair 25 characterization to say that Mr. Morrow's testimony

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1 deals with production at the micro level, that is down 2 in the pool and well level, and what you're interested 3 in is the overall trends, sort of a macro approach to 4 analysis?

5 A That's correct. The purpose of this 6 testimony is to put in a broader context the detailed 7 supply/demand picture which you can see in the 8 prorated pools. Most of the data I will show this 9 morning is on a statewide basis and is not submitted 10 again for prorated and nonprorated pools.

I may say that that data is available in our records, and the numerical data is available for all of the slides that I will show which will deal with trends rather than individual numerical data.

15 Q Now, you indicated that you have some 16 slides which you want to show. These are in fact the 17 exhibits which you have prepared or prepared under 18 your supervision for purposes of this hearing as well 19 as other purposes.

20

A That's correct.

Q Have we designated -- a packet of the
graphs is available. Is that correct?

A That is available. In fact, I put a sheet
in the packet. Those members of audience who may want
to get a copy of the slides, if they would like to

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sign their name on the sheet before the end of the 1 2 hearing, we'll be glad to mail them. What I'd like to do at this time is mark 3 0 4 the entire packet of slides as Exhibit Number -- I'm 5 going to mark it as Exhibit Number 6, and there is a reason for that -- out of sequence. And at this time, 6 7 Mr. Merrett, let's go through this. 8 And if you would, identify on the overhead the various slides, what they show, and then explain 9 10 the significance of them in terms of gas proration. Let me first -- I won't make the same 11 12 mistake again -- offer Mr. Merrett as an expert in 13 natural gas marketing and forecasting, I guess, in 14 this case. 15 CHAIRMAN LEMAY: His qualifications are 16 accepted. 17 THE WITNESS: With the Chairman's 18 permission, I'm going to move up top. I can't reach 19 from here. 20 This first slide, which does not perhaps show too well to those in the back, and I would 21 suggest like in church you can all come to the front. 22 23 This slide shows the monthly production of 24 natural gas from 1988 through '90/1991 through June, 25 which is the latest data we have. The left hand

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access is a billion cubic feet, and the lower access 1 2 simply shows the months. BY MR. STOVALL: 3 Now, Mr. Merrett, just for the record, let 4 0 me clarify that this first sheet is entitled "New 5 Mexico Natural Gas Production 1988 Through 1991." 6 7 That is correct. A 8 This chart has many purposes. One of them 9 is to show that production has increased year by year 10 from 1988 through 1991. The principal purpose today 11 is more to point out the seasonal consistency in the 12 seasonal fluctuation. 13 As you will see, you start the year with 14 high production in each of these years, and it goes to 15 a lower level in the summer of June and July, and rises again in the winter. There is a certain 16 17 predictable trend, month by month, in each of the years. And we have done some other work which trace 18 19 these trends a little better. 20 Again, for the record, you put on another 0 21 slide which is entitled, "New Mexico Natural Gas Productions, Monthly Projection 1/87 through 6/91." 22 23 This shows the monthly production, Α Yes. 24 and, again, is intended soley to illustrate the 25 seasonal trend. You see the trend is upwards as was

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shown on the previous chart, but here you see the 1 2 seasonal pattern is shown very clearly. This slide is called Production of 3 4 Comparison of Eight Counties. We've taken four 5 counties in the northwest, which are represented by the blue lines, and four counties in the southeast, 6 7 which are represented by the green. 8 The blue line on the black and white copy 0 is the one with the crosses on it? 9 That's correct. And the green one is the 10 Α one with the squares. 11 12 The purpose of this slide is simply to show 13 that over the period January '88 through January 14 '91 -- in fact June of '91, the production in the southeast has been on a much more even monthly basis. 15 16 A lot of this gas is associated with crude oil, but there is a much more definite even trend. 17 The northwest is much more erratic with 18 19 much more violent swings during winter and summer, but the trend is dramatically upwards, there is 20 21 considerably more production from the northwest than 22 from the southeast, and that is a conclusion you can draw from this slide. 23 24 This slide is perhaps the most significant 25 of all for purposes of this hearing.

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Q Mr. Merrett, before we get started, let's look -- because I'm looking at the black and white and there are no simple associations. Can you identify the symbols?

Α

1

2

3

4

5

Sure.

6 This side is called "Trends: Northwest 7 Production, Conventional, and Coal Seam." The top 8 line is in purple on this slide and is a series of 9 X's, and we have calculated a trend line which shows 10 the trend rising fairly slowly, but it still rises.

11 The middle set of data is represented by 12 green diamonds with a -- and this is a conventional 13 production in the northwest. All this is northwest 14 production, by the way. And you see the conventional 15 production with an orange line representing the median 16 of those green diamonds, is a downward trend. At the 17 bottom, we show coal seam gas, which is represented by 18 a series of red squares and a blue rising trend line.

19 So the conclusion you draw is that total 20 northwest production has been rising steadily from 21 January through June of -- January of '90 through June 22 of '91. Conventional has been declining steadily as 23 you would expect during that period, and the coal seam 24 production has been rising continuously throughout the 25 period.

34

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This slide is called "New Mexico Natural
 Gas Production, Actual Versus Projected." I would say
 that we project for 1991 total production of natural
 gas around one trillion cubic feet, which will be the
 highest production for quite a few years.

6 This is referred to as the outer slide for 7 obvious reasons. And the final part of the slide on 8 the right, which is a series of green crosses linked 9 with a green line is an estimate of total production 10 towards the end of the year. As I said at the start, 11 these data are available in numbered form for those 12 who are interested, and we could provide them.

13 The next slide is rather difficult to see 14 from here. For the six-month proration period, we 15 have platted gas production based on -- and I'll try 16 and demonstrate what this slide shows. The estimated 17 '89/90, is production -- is in a series of blue 18 crosses drown by a blue line, and simply shows the 19 trend -- shows the actual production for this period.

The following, the next line up is an orange line, and it shows the actual production for the same period, '90/91. I guess that includes some estimated because we didn't have all the data at the time. And the yellow line above it shows the estimate for '91/92.

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The whole purpose of this slide is to try 1 2 to show for the proration period in question just what we expect the estimated gas production to be. 3 4 As I said before, history tells us that the 5 actual production is fairly well reflected on demand. The final slide is just for information. 6 7 It's our latest slide on estimated reserves. Let me point out, this is not in the black 8 0 9 and white stapled packet. It is in the black and white stapled packet 10 Α 11 that the commissioners have, but there wasn't enough 12 to have one for you. 13 0 Oh. 14 (Laughter.) MR. STOVALL: Surprise witness and surprise 15 16 exhibits. 17 MR. MERRETT: This is New Mexico's estimated reserves -- well, estimated reserves like 18 19 they are always estimated. But we just put in the 20 latest number for 1990, which is the number that will 21 appear in the federal government's statistics too. 22 And it is around 20 trillion cubic feet. So you see 23 that on this estimate, we have -- we are 24 approximately -- have reserves to production ratio of 25 20, since our production is estimated to be one BCF

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1 this year.

2 That concludes my slides, and I'll move
3 back down there to see if you have any questions.
4 BY MR. STOVALL:

5 Q Let me just ask you a couple of questions 6 with respect to the usefulness of this testimony in 7 your exhibits with respect to this proceeding.

8 It appears you have done a couple of things 9 here. One is that you have historically mapped 10 production and trends, again, in an effort for the 11 purpose of this to try to predict what will happen 12 during the next six-month period. Is that correct?

13 A That is correct. We don't pretend to have 14 a very sophisticated forepassing unit, but I think 15 probably we can do as well as we can with the 16 statistics we have available.

17 Q Now, it appears the other part of some of 18 your displays in this exhibit would indicate how past 19 predictions have actually measured up against actual 20 past performance.

A

That's correct.

Q And what is your opinion with respect to
the relative accuracy of predictions on a macroscale,
if you will.

25

21

A Well, in spite of the turmoil that has

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taken place in the gas industry over the last five or
 six years, I think it's quite surprising now how
 accurate the predictions have been and how parallel
 the seasonal trends are in every year.
 There are, of course, effects of different

5 There are, of course, effects of different 6 weather patterns in the nation, and particularly in 7 our principal market which is still California. But 8 nevertheless, the seasonal trend in production seems 9 to follow fairly closely year by year.

10 Q Based upon your analysis in the, if you
11 will, projections that have been made by the prorated
12 gas pool, do you believe that those proposed tentative
13 allowables that have been submitted are reasonable?

14 All I can comment on are the numbers I have A been shown by Mr. Morrow, and to the extent that they 15 seem to show a reduction in -- certainly in the 16 17 northwest part of the state anyway, a reduction in 18 expected production. I would think that is likely from conventional wells, which are the prorated wells. 19 20 Do you have anything further you would like 0 21 to add to your testimony?

A That's all I have.

22

23 MR. STOVALL: I have nothing further.
24 I move the admission of the complete
25 Exhibit 6, including the bargraph which I don't have

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39 1 in mine. 2 COMMISSIONER LEMAY: Without objection, the Exhibit 6 will be admitted into the record. 3 Ouestions of Mr. Merrett? 4 MR. KELLAHIN: Mr. Chairman? 5 Mr. Kellahin. 6 COMMISSIONER LEMAY: CROSS EXAMINATION 7 BY MR. KELLAHIN: 8 Am I correct, Mr. Merrett, in understanding 9 0 10 that you believe historical past production in 11 prorated gas pools is a good indicator of market 12 demand? 13 That's correct. Α That answer assumes that the allowables 14 0 15 previously set by the Division have accurately forecasted market demand. 16 17 It assumes that, and actually reflects Α 18 market demand I would say. 19 If historical past production is the only 0 parameter that we need to factor into the allowable 20 21 schedule, then there is no reason to have adjustments as Mr. Morrow has suggested in the formula. 22 23 That is not correct. As I understand the A 24 way the correction system works, it would be unwise 25 not to make adjustments if you know that they are

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realistically going to impact production. 1 Because we know historical past production 2 Q 3 is not only a reflection of market demand, but it is limited by the allowables established by the Division. 4 5 Α I suppose so. б MR. KELLAHIN: No further questions. CHAIRMAN LEMAY: Additional questions of 7 the witness? Mr. Carlson? 8 CROSS EXAMINATION 9 10 BY COMMISSIONER CARLSON: Ron, on your graph called "Trends: New 11 0 Mexico Gas Production," the middle line is the 12 13 conventional gas, right? Yeah, that's correct. 14 Α 15 What percent of that conventional gas is Q 16 prorated? I don't know. I'd have to ask Jim Morrow 17 Α 18 to address that question. I couldn't tell you. 19 Is it fair to assume the vast majority of 0 it is? 20 MR. MORROW: No. We had a number a while 21 ago. 44 percent of the gas well gas production was 22 23 prorated, but that included the coal seam too. COMMISSIONER CARLSON: And that's 24 statewide, right? 25

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MR. MORROW: Yes. 1 2 COMMISSIONER CARLSON: I'm talking about conventional gas out of the San Juan basin. 3 MR. MORROW: The production from the Blanco 4 Mesa Verde pool, to kind of partially answer your 5 6 question, is about equal or slightly less now than 7 what is produced from the coal seam production. So it is in the northwest, the -- since the Blanco Mesa 8 9 Verde is nearly as much as the coal seam gas, and then 10 you have the Basin Dakota, which -- what did we say, about eight BCF per month, I expect. So it would be 11 12 more -- conventional would be more. (Cross examination of Mr. Merrett continued:) 13 14 BY COMMISSIONER CARLSON: 15 And none of the coal seam gas is currently Q 16 prorated. Is that correct? 17 Α That's correct, to my understanding. 18 0 In your opinion, Ron, is the reason that 19 conventional gas production is decreasing -- let me 20 rephrase that. 21 In your opinion, why is conventional gas 22 production decreasing and coal seam gas production increasing in the San Juan basin? 23 24 That's a very difficult question. Perhaps Ά 25 because the coal seam gas has only really come into

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play in a big way in the last year and a half. 1 And the situation in the last year and a half has been a 2 little different than it was before that. There is 3 obviously some kind of decline on conventional 4 production anyway. An actual decline in production. 5 In addition to that, currently we have 6 pipeline restrictions out of the San Juan basin which 7 are causing the amount of total gas produced to be 8 limited. 9 Wouldn't those pipeline restrictions also 10 Q apply to coal seam? 11 12 It's hard to say. If the coal seam gas is Α firmly contracted to people to earn that capacity, 13 then the answer is no. If the capacity was -- access 14 capacity was equal among all producers, then that 15 might be so, but it isn't. 16 Would one possible factor be if coal seam 17 0 18 gas is not prorated while conventional gas is? 19 A I couldn't answer that. 20 COMMISSIONER CARLSON: Thank you. CROSS EXAMINATION 21 22 BY CHAIRMAN LEMAY: 23 Mr. Merrett, understanding the expansions Q 24 that are taking place and will take place in the northwest part of the state, how would those 25 HUNNICUTT REPORTING

expansions out of the San Juan basin affect your
 projections of future production?

There should be a release in the bottleneck 3 Α by the -- let's say during next spring, the spring of 4 '91/92. Let's say all gas that the producers wish to 5 flow could flow without restrictions through pipelines 6 or through plants by that time. And I would expect 7 there to be some increase, and it's very difficult to 8 9 say how much, but I would expect there would be some 10 increase in conventional production, and perhaps even 11 coal seam production because right now there are a 12 large number of wells which are not connected to 13 pipelines. I hesitate to say that they are fully 14 complete and ready to flow, but we know that there are a large number of wells which are not connected to the 15 16 pipeline. Part of the reason for that may be the 17 inaccurate pipeline capacity. So a projection usually would have to -- should allow for this impact of 18 19 removing the bottleneck in the pipelines.

20 Q Is it fair to say that the projected 21 expansions will not affect our -- the proration period 22 we're looking at from October through March, though, 23 this year, or do you anticipate some effect on that 24 proration?

25

Α

It will not affect this proration period at

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1 all. 2 One additional question. 0 Your Exhibit 6 as far as reserves show an 3 increasing rate of reserves and a reserve production 4 I think you said of about twenty to one. 5 ratio. Do you have any idea how that compares 6 7 maybe with other states? My impression is that across the United 8 Α 9 States, the production -- reserve production ratio is less than ten. It's less than ten to one. 10 And I personally believe that that estimate we have given 11 is, if anything, on the low side. So our reserve 12 13 production ratio is likely in excess of twenty to one. 14 Nationally, the average I believe is around ten. 15 Is it extending too much the argument then Q 16 that we're not getting our fair share of the market 17 because we're producing less of our reserve than maybe 18 other states, or is that extending it beyond the 19 scope? That's very subjective. I think the fact 20 Α 21 is that too high a production ratio is a waste of And in the companies that don't want to 22 resource. 23 produce their gas, that's their prerogative. But I believe that you will -- that if your research 24 25 production ratio gets too high, you're wasting

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45 resource and wasting money. 1 2 By not being able to produce it? 0 Α Yes. 3 CHAIRMAN LEMAY: Thank you. That's all the 4 questions I have. Commissioner Weiss. 5 CROSS EXAMINATION 6 BY COMMISSIONER WEISS: 7 Who made the reserves determination? 8 0 The reserves determination is made 9 Α 10 principally within our division. With who? 11 0 Within our division -- Oil Conservation 12 Δ 13 Division. COMMISSIONER WEISS: That's all. 14 CHAIRMAN LEMAY: Any additional questions 15 of the witness? 16 17 (No response.) CHAIRMAN LEMAY: You may be excused. Let's 18 19 take a 15-minute break. (Recess taken.) 20 CHAIRMAN LEMAY: We will resume the case, 21 10377. Mr. Stovall? 22 MR. STOVALL: Mr. Chairman, I'd like to 23 recall Mr. Morrow on a couple of points to make sure 24 all the parties understand what we would like to have 25 HUNNICUTT REPORTING

from them in terms of testimony. 1 CHAIRMAN LEMAY: You've already been sworn 2 3 in Mr. Morrow. EXAMINATION CONTINUED: 4 5 BY MR. STOVALL 6 0 Mr. Morrow, you have provided some testimony with respect to allowables specific to 18 7 8 prorated pools in New Mexico. And Mr. Merrett showed some information with respect to production trends. 9 10 Now, as I asked him and to make sure your 11 understanding is clear on that as well, what he has 12 looked at is broad-based pictures that cover regions 13 for state-wide production trends and patterns over a 14 period of time. Is that your understanding of his --15 Α Yes. 16 And what you do is you try to take more 0 17 specific information and get it down to the individual 18 prorated pool level. Is that correct? 19 Yes, that's correct. Α 20 And in establishing or recommending Q 21 allowables, both in terms of your recommendations and 22 what the Division finally does in terms of it setting 23 allowables, what you attempt to do is predict what you 24 believe will be produced from a pool over a given 25 six-month period. Is that correct?

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1 Α Yes, sir. What we've done, as I have 2 explained, is to look at what was produced for the same period the previous year, two years previous, 3 compare those and just try to get an idea what that 4 pool would be expected to produce as a pool. And of 5 course we have invited comments, and some have 6 7 indicated they had planned to give us information we wouldn't have by looking at history in order to get at 8 9 a market demand for an individual pool rather than 10 statewide. 11 Of course, statewide trends give you some 12 indication of what might happen in a pool. But I 13 think the pool, specific pool information certainly 14 has to be looked at. 15 Okay. Once you get to the pool is you get 0 16 down to the total nonmarginal allowable for the pool, 17 and then try to allocate that amongst the wells in the pool based on the allocation formula for that 18 19 particular pool. Is that correct? 20 Yes, sir, that's right. Α 21 Then the purpose of that is to attempt as 0 22 best as possible to allow each nonmarginal well in the pool its opportunity to produce its fair share without 23 24 getting an excess share of production from the pool. 25 Is that correct?

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1 Α Yes, sir, that's right. There are some mechanisms there to protect relative rights, the 2 acreage factor. If the well is short on acreage, it 3 has a smaller acreage factor, it wouldn't get much, 4 say, as one that had twice as much. 5 6 0 There are some -- I think Mr. Kellahin seemed to be looking towards that it would be a 7 8 division desire and intent to establish a pool allowable which would not restrict that pool from 9 10 producing the gas which it could sell. Is that 11 correct? 12 If the market and the capacity to produce Α 13 to meet that market is there, I think the Commission 14 has indicated from previous actions that they want to 15 assign that allowable to the pool. 16 And so while there may be individual wells 0 17 within a pool that will be restricted, if in fact there is proration at all, some wells will -- by 18 19 definition will be intentionally restricted. The pool

20 should not be significantly restricted in terms of 21 meeting that market. Is that correct?

22

A That's true.

Q Now, in order to achieve that result what
you have to do is take the information you've got.
The only information you've got is history up to this

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Is that correct? 1 point. 2 Α Yes, sir. And then if any part has information, good 3 0 solid information and not just hopes for greater 4 volumes, then we ask that they put that information 5 in, and again you would make adjustments to the pool 6 allowable based upon substantiated information which 7 is submitted today. Is that correct? 8 9 Α Yes, sir. These gentlemen make certain -whatever adjustments they feel are appropriate. 10 11 0 And allocate that, again, to the 12 nonmarginal amounts of the pool after taking out the 13 marginal and give each well its fair share, in effect? 14 Α Yes, sir. MR. STOVALL: I have no further questions. 15 16 CHAIRMAN LEMAY: Additional questions? 17 (No response.) 18 CHAIRMAN LEMAY: If not, you may be 19 Thank you Mr. Morrow. Is there anything excused. additional you wish to present, Mr. Stovall? 20 21 MR. STOVALL: Unless I have any other witnesses that want to stand up, I think I'm through. 22 23 CHAIRMAN LEMAY: Thank you, Mr. Stovall. 24 Absent any surprise witnesses, we will call Mr. 25 Kellahin and he may present his witness.

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MR. KELLAHIN: Thank you, Mr. Chairman. At 1 this time I'd like to present Hallwood Energy 2 Companies' request for the Cat Claw Draw Morrow gas 3 pool, and I would call Mr. Kevin O'Connell. I have 4 5 distributed to the Commission copies of his exhibit 6 booklet. DIRECT EXAMINATION 7 BY MR. KELLAHIN: 8 Mr. O'Connell, for the record would you 9 0 10 please state your name and occupation? My name is Kevin O'Connell, and I'm a 11 A 12 Western District Drilling and Production Supervisor 13 for Hallwood Petroleum. 14 Are you a registered professional engineer? 0 Yes, sir, in the State of Colorado. 15 Α Summarize for us your educational 16 0 17 background and experience as an engineer. 18 Α I graduated in 1980 with a BS in petroleum 19 engineering from the University of Wyoming. I was 20 employed shortly thereafter by Amoco Production 21 Company, and I worked for Amoco for 10 years from June 22 of 1980 to June of 1990 in Alaska, Oklahoma, and 23 Colorado. And last year I joined Hallwood Energy 24 Companies, in July of 1990, and have been with them 25 since.

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Do your duties include managing Hallwood 1 0 2 Energy Companies' production in the Cat Claw Draw Morrow gas pool? 3 4 Α Yes. Pursuant to those duties have you studied 5 0 6 and made yourself familiar with the proration system of New Mexico insofar as it applies to that pool? 7 Yes, sir. 8 Α And in addition have you reviewed and 9 0 10 studied the preliminary recommendations for allowables 11 suggested by Mr. Morrow in his notice to the industry 12 in August? 13 Yes, sir. Α 14 And have you also looked at his Exhibits 1, 0 15 2, and 3 for today's hearings? 16 Α Yes, sir. 17 Based upon your entire study with regards Q to that pool, do you have recommendations for an 18 19 allowable level for this prorated gas pool? 20 Α Yes, sir, we do. MR. KELLAHIN: Mr. Chairman I tender Mr. 21 22 O'Connell as a petroleum engineer. 23 CHAIRMAN LEMAY: His qualifications are 24 accepted. 25 BY MR. KELLAHIN:

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Let's start with the ultimate conclusion 1 0 and we will go through your exhibit book, Mr. 2 O'Connell, and discuss the individual items. 3 What is your recommendation to the 4 5 Commission concerning an appropriate allowable level 6 to set on a monthly basis for the Cat Claw Draw Morrow gas pool for this winter proration period? 7 Α I would like to recommend a monthly pool 8 allowable for the winter, six-month period of 9 10 approximately 458,000 MCF, which is significantly higher than the level presented in the Exhibit Number 11 12 1. As part of your study have you come to a 13 Q 14 conclusion about the market demand for pool 15 production?? 16 Α Yes. 17 Does that requested level of allowables Q 18 reflect accurately the level of production for the 19 next proration? As to our level of production? Yes, sir. 20 Α Have you also studied the capacity of 21 0 Yes. the pool to deliver that volume of gas? 22 23 Α Yes. 24 0 And can it? 25 Yes. Α

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1 In fact the capacity of the pool exceeds Q that market demand. Does it not? 2 Yes. 3 Α Have you inquired of other operators in the 4 0 pool as to whether or not they have any objection to 5 6 your proposed level of allowables for the pool? Yes, sir. Approximately two weeks ago, 7 Α shortly after we submitted our nominations to the 8 9 state, we also sent a letter to the three other 10 operators in the pool; Texaco, Hondo, and Barbara 11 Fasken Properties requesting a letter of support. And 12 we have received them and those are attached as the 13 last three pages, 14, 15, and 16 to the exhibit 14 package. We received letters of support from all 15 three other operators, requesting that they support us 16 in assigning the allowables based on our nominations 17 that are submitted. Let's start with page 1 of Exhibit 1. 18 0 I've 19 taken your exhibit package, simply identified it as 20 Exhibit 1, and then numbered each of the pages in your 21 exhibit book. Let's start with page 1 and have you 22 given us a general summary of the status of the pool.

A Page 1 is just a map outlining at the Cat Claw Draw field and Hallwood's acreage. Hallwood is the major operator in the pool. We operate 15 wells;

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13 producers, two shut-in wells. The five remaining
 wells are operated by the three different companies
 that are mentioned; Texaco, Hondo, Barbara Fasken. I
 might add all of their wells are currently classified
 as marginal wells.

6 Q How many nonmarginal versus marginal wells 7 are in the Cat Claw Draw pool?

8 A There are currently two nonmarginal, and I
9 believe eight marginal.

10 Q When did you become specifically interested 11 in the allowable levels established for your pool?

12 A We began pursuing it after we started a
13 fairly extensive recompletion program this year.
14 We've worked on four wells within the pool and have
15 increased our deliverability considerably through some
16 successful work orders and recompletions.

Q Does the schedule that Mr. Morrow presented
today, does that now reflect the added deliverability
or capacity that you have added to this pool?

A No, sir, it doesn't.

21 Q Does your recommend allowable level include
22 that additional capacity?

A Yes, sir.

20

23

Q Summarize for us, on page 2 you have
identified a proration unit identified as the 1Y and

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1 the 13.

2 Α Yes, sir. This is a -- currently a nonmarginal unit that exists in the field. And I 3 reviewed that to see how that unit has been 4 5 performing. Why is that of importance to you, and why 6 0 should it be important to the Commission today? 7 Well, basically because we have been 8 Α curtailing and shutting in this unit a lot. During a 9 15-month period, the unit produced only 44 percent of 10 the time. And despite the restriction, the unit is 11 12 still the most overproduced nonmarginal unit in the pool. And we have withheld gases from the market even 13 when we have had the opportunity to sell it. 14 15 Basically my point in reviewing this unit 16 was that this was a good example to highlight the need 17 for raising nonmarginal unit allowables to allow units 18 such as this one to produce or --19 This unit, nonmarginal unit, is being 0 curtailable by its allowable? 20 Yes, sir, during the same 15-month period, 21 Α the well produced only 200 days out of 455 days. 22 The 23 average assigned allowable was coincidentally also 24 about 44 percent of the unit's sustained capability. On a daily basis, what has been your 25 0

1 allowable for this nonmarginal well? 764 MCFD for the nonmarginal unit versus Α 2 the unit's capability of 1616 MCFD. 3 Have you platted the sales from this 4 Q 5 nonmarginal unit versus its capabilities as well as 6 the allowable assigned to that spacing unit? Yes, sir, that's exhibited on the plat, 7 Α page 3. 8 Summarize that for us. 9 0 10 Α It basically has just three curves. It 11 shows -- the top curve is capability, which is what 12 the two wells on the unit can produce. Then I've also 13 platted the allowable on there, and that's represented 14 as the lower curve. And I've also platted average 15 sales on a monthly base into a daily rate. You can 16 see basically the unit has been shut-in for six to 17 seven months of 1990. 18 0 Why? 19 Mainly for the reserve allowable and to Α 20 prevent the unit from becoming too overproduced which would necessitate a shut-in in winter mounts. 21 22 During the summer months you're banking 0 23 your allowable, accruing your underproduction, and 24 trying to save that for the winter production period? 25 Α Yes.

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You start the winter production period in 1 0 2 October then? Yes. 3 Α And what's happened to sales? Sales have 4 0 exceeded the allowable until you became overproduced? 5 Α Yes. 6 Notwithstanding market demand, you had to 7 0 shut-in your well because you hit the OP limit. 8 9 Yes, sir. Α 10 Q Turn now to page 4. Identify and describe 11 the purpose of that display. 12 Α Page 4 is just a plat of the number of 13 days -- average days in a month that we have produced 14 that unit, and illustrates that we produced it until 15 approximately March or late March, April, and have had that unit shut-in until October. 16 17 In your opinion, is that is an effective 0 18 and efficient way to manage the production for this 19 proration? 20 No, sir. Α Turning to page 5, you're dealing with a 21 0 different proration unit. The unit 2 and unit 14 22 23 wells? 24 Yes, sir. It is currently on the April A 25 proration schedule -- is the other nonmarginal

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proration unit within the Cat Claw Draw pool. And I looked at this unit. And basically this unit is currently carried as a nonmarginal unit but should now be reclassified as a marginal as it meets the criteria by the OCD. It has not met it's allowable on any consecutive months, and it is also a currently underproduced unit.

8 And here we have compared the number of 9 days this unit has produced, 89 percent of the time in 10 that same 15-month period. Proration of this 11 nonmarginal unit has been working adequately primarily 12 due to two factors; one, production has been 13 declining, and the average assigned allowable has been 14 about 96 percent of the unit's capability. So there 15 is a close analogy there.

I also wanted to make a point that this example does illustrate that if nonmarginal unit allowables were increased in the field, proration units such as this one become reclassified as marginal and allowed to continue producing essentially at the same rates they are currently at.

22 Q And on page 6 you have made a plat of the 23 information on sales, allowable, and capability.

A Yes, sir. You can see that these three curves parallel a little more closely than the

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1 previous one.

2 Page 7 is the days on and off for that 0 proration? 3 4 Α Yes, this well was curtailed just a couple months in late summer last year. 5 Let's turn now to the Cat Claw Draw Unit 9 6 0 7 on page 8. What is the purpose of including this in 8 the presentation? The purpose in including this, this 9 A 10 proration unit is classified as a marginal unit, but 11 will most likely be reclassified as nonmarginal due to 12 a recompletion we did in May of '91. In essence we're 13 recommending essentially swapping this unit for the 2 and the 14, which will drop out as a -- from 14 nonmarginal to marginal, whereas this one will go the 15 16 other direction, from marginal to nonmarginal. 17 As I mentioned, this well was recompleted in May uphole from the Morrow C to four zones in the 18 19 Morrow A and B. The well has produced to rates up 5.8 20 million a day and created an absolute open flow of nearly 18 million a day, 17,658. We filed the C-104 21 form with the state on July 30, 1991. 22 23 Post recompletion production on this well, 24 which, by the way, this is a one-well proration unit, only one well exists, post recompletion production has 25

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been approximately 342,000 MCF. Current production is
 5.1 million a day at 1950 pounds flowing tubing
 pressure.

And then two points I wanted to illustrate 4 here, this proration unit has demonstrated capability 5 6 and gas sales that are eight times -- over eight times 7 the current top allowable for a standard 640 gas proration unit. And this proration unit illustrates 8 9 the need to raise the pool allowable to a level that 10 will allow nonmarginal units to be produced at rights 11 commensurate with their capability.

And associated with that on the next page, page 9, I have just platted the average daily production and tubing pressure on the well since the May recompletion and the start of gas sales from the new zone.

17 0 When you look at the status of the pool in terms of underproduced or overproduced in the 18 19 proration schedule, have the operators in the pool for 20 the nonmarginal wells utilized the allowable assigned 21 to them in the past pattern so they are now substantially overproduced on a pool-wide basis? 22 23 Yes, sir. Α 24 0 I talked with Mr. Morrow a while ago on

25 Exhibit 1 on averaging the monthly pool sales, which

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is line 1 of his spread sheet. 1 2 Α Yes, sir. Have you also gone back and tried to 3 0 4 determine what in your opinion is an accurate volume 5 to use for pool sales on a monthly basis? Α Yes, we have. 6 7 0 Is that shown on page 10? Yes, sir. 8 Α Summarize for us what you've done. 9 0 10 Basically I looked at the data on the A 11 proration schedule, the recent proration schedule as a 12 three-month interval; October, November, December 1990 average production of 158,408 MCF a month. 13 And then 14 I've looked at some data with the help of a 15 consultant, Victor Lyon, who has been working for us, 16 and indicated production is about 184,000 for the last 17 six-month winter period, October '90 through March 18 1991. And then also I looked at total monthly 19 20 production in January of 1991 from the pool, which was 21 about 194,381. And I have essentially averaged the 22 winter six-month period and the January '91, giving 23 more weight, of course, to the January period and 24 saying that would be an expected average for the

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upcoming winter monthly sales. And it's just under

1 190,000 MCF on a monthly basis.

2 Q What is your recommendation to the Commission for the monthly sales volume number that 3 4 accurately reflects the average monthly pool sales 5 from October '90 to March '91? That should be 6 substituted on Mr. Morrow's spread sheet for line 1? Yes, sir, we think the actual production 7 Α number is a little bit higher. 8 9 What number should that be? 0 10 A 189,546. Have you also gone through and estimated 11 0 12 what you believed to be the marginal well production? 13 Α Yes, sir. If I understand the Division spread sheet 14 0 15 correctly, if we look at row five, the Assignment of a 16 Marginal Pool Allowable. The 92,000 for Cat Claw 17 Draw. 18 Α Yes, sir. 19 How does that correspond to the information 0 20 you tabulated on page 11 of your exhibit? Are you attempting to address the same item? 21 22 Yes, sir, I am. Α 23 Okay. What do you find? 0 24 My number is significantly higher, 203,182. Α 25 And this was arrived at by assuming the production

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1 from the three other operators in the pool. Their 2 total nonmarginal production -- excuse me, marginal 3 production is about 50,300 MCF a month.

4 And then I sum up Hallwood's six marginal proration units, which is 11 wells. And that 5 production is 152,882 anticipated for the month -- for 6 the average monthly sales during the upcoming winter. 7 And that number excludes all but two proration units, 8 being the Cat Claw 1Y and 13, which we discussed, and 9 10 the Cat Claw Number 9, which we recommend remaining as 11 nonmarginal units.

So in essence the 152,882 from Hallwood
marginal units plus the other operators' 50,300 MCF,
totals 203,182 MCF for a marginal monthly total.

Q What number then do you recommend be put in
the Division spread sheet at line 5 for this pool?

A We would recommend that number.
 Q Turn now to page 12 and tell us how you

19 have determined the allowable for the two nonmarginal 20 proration units.

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A Basically I went through the same exercise
and the same criteria in the OCD format utilizing the
numbers we have discussed.

24Line 1 would be an average monthly pool25sale of 189,546. Line 2, total nominations of 410,000

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MCF, which we submitted to the state. Line 3 is our
 adjustment, and this is a significant number, 268,736,
 which reflects the new anticipated production from
 three regional completions we've done recently: Cat
 Claw Number 9, Cat Claw Number 16, and Cat Claw Number
 17.

7 They have all be completed since May then, 8 and the Commission is just becoming aware of this 9 information. They did not have that available to But those three wells have deliverability 10 them. 11 combined in the eight- to ten million a day range. So taking that major adjustment there and 12 13 add it to come up with my monthly pool allowable 14 458,282 MCF. And I subtracted out the previously 15 discussed marginal pool allowable. This gives a 16 nonmarginal pool allowable for the winter period of 17 255,100 MCF.

And then maintaining the 2.00 acreage factor for the number of nonmarginal units, we come up with a monthly acreage allocation factor of 127,550, which broken down on a daily basis is just under 4.2 million a day. 4196 MCF.

Q What have you done to satisfy yourself, Mr.
O'Connell, that you have a market for this additional
gas if the allowable is set at your anticipated market

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1 demand?

On the next page, page 13, our vice 2 Α president of gas marketing, Mark Gregory, has secured 3 a letter of intent from Gas Company of New Mexico to 4 purchase volumes up to 15,000 MMBTU per day during the 5 6 upcoming winter season. I'll ask Mr. Gregory about his analysis of 7 0 the market demand for the pool, but from your 8 perspective do you see any restrictions on pipeline 9 10 capacity to move this additional gas to market? No, sir. We're -- in fact we're currently 11 Α 12 moving right around 12 million a day out of our wells right now in the field with no restrictions. 13 14 If your allowable level is approved by the 0 15 Commission, do you see any adverse consequence to any 16 of the marginal wells in the pool? No, sir, because under the formula the 17 Α 18 marginal wells will be allowed to produce at their 19 current capacity. 20 What other pipeline pressures in the pool 0 are there? Are there such marginal wells which might 21 22 be displaced if the allowables are increased and 23 satisfied by the nonmarginal well? 24 I do not believe that will happen. I think Α 25 pipelines can -- all the gas in the field to my

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1 knowledge can get into the pipelines without any 2 restrictions. 3 MR. KELLAHIN: That concludes my examination of Mr. O'Connell. 4 Mr. Chairman, we would move the 5 introduction of his Exhibit 1, and while he didn't 6 7 specifically talk about it, the last pages are the 8 written verifications from the various operators in the pool that they support his level of nominations 9 10 for allowables in the Cat Claw Draw. 11 CHAIRMAN LEMAY: Thank you, Mr. Kellahin. 12 Without objection, Exhibit 1 will be admitted into the record. Ouestions of the witness? 13 14 MR. STOVALL: I have no questions. 15 CROSS EXAMINATION 16 BY MR. CARLSON: 17 Mr. O'Connell, how do you explain the 0 18 difference between Mr. Lyons' actual number of pool 19 sales and Mr. Morrow's? Wouldn't they be taken from 20 the same data? No, sir. I think that the difference is 21 Α something we discussed earlier when Mr. Morrow was up 22 23 here. And that difference being, some of the data 24 comes from C-111's, and some of the data comes from 25 C-115's. There appears to be a difference in who is

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1 reporting production, be it a purchaser or operator, and how it gets into the OCD system. 2 Mr. Lyons' information came from the 3 Q C-115's and Mr. Morrow's from the C-111's. 4 5 Α Yes, sir, I think that's a good portion of 6 the difference. COMMISSIONER CARLSON: 7 Thank you. 8 CROSS EXAMINATION BY MR. WEISS: 9 10 Q Does the revenue from the gas, does it split according to the working interest ownership? 11 12 Α Yes, sir. 13 0 For the whole unit. 14 Α Yes COMMISSIONER WEISS: Thank you. That's 15 16 all. 17 CROSS EXAMINATION BY CHAIRMAN LEMAY: 18 I have two questions, Mr. O'Connell. One, 19 Q 20 I guess being blunt, why didn't you bring this data 21 before the Commission six months ago since you had the 22 test? I don't remember you giving testimony on the 23 Cat Claw Draw. We didn't have this data six months ago. 24 Α 25 Which data are you referring to? HUNNICUTT REPORTING

1 Well, specifically the -- that 15-month 0 2 period of January 1990/March 1991, page 2, your Cat 3 Claw Draw 1Y and 13. The overproduced status of that well on 3/31. 4 5 And the question is why didn't we bring Α this forward at the last --6 7 0 Yes. 8 Α I think, quite frankly, the last hearing, 9 which was the first one open, we were not aware of the 10 new format and -- that the Commission was actively 11 seeking input from, producers on their wells. And I 12 think from one of our discussions with Jim Morrow, I 13 don't think we were alone. And there were a lot of 14 people that weren't aware of the new format and the 15 new procedure such as this. 16 0 Are you on a docket list? 17 Α Yeah. 18 MR. KELLAHIN: They are now, Mr. Chairman. 19 CHAIRMAN LEMAY: Every one on our docket 20 list gets the preliminary -- they did last time too --21 preliminary estimates of Mr. Morrow's work. 22 THE WITNESS: It may have gone to one of 23 our other addresses because Hallwood used to be in 24 Oklahoma. We changed our name recently. And we're 25 aware of it now.

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1 BY CHAIRMAN LEMAY:

2 Q ON page 12 on your request for adjustments 3 with this exhibit package it looks like the only hard 4 evidence you had on well capabilities is the number 9 5 workover at five million a day. Is it assumed 16 and 6 17 could produce that, or is there any production 7 history on those wells to verify their deliverability?

A We're just getting production -- Number 17 9 was recompleted about 40 days ago. About a week and a 10 half ago we submitted our C-104 to the Artesia office, 11 and that well is producing -- has been producing now 12 for about 25 days around a million a day. And my 13 nomination was submitted at 900 MCF a day. And that 14 appears to be able to deliver that.

15 The Number 16 was actually just recompleted 16 and prorated last Friday, put on gas sales on Tuesday at 1.1 million a day. Would average 1.5 million at 17 18 3,020 pounds. And the AOF and the four point test was 19 performed Monday on it and has an AOF of 4.9 million. 20 So we're just getting data on that. That appears to be a strong well capability easily of one and a half 21 22 to two million a day based on the data we're getting. 23 Is it fair to say those two wells are too 0

24 recent to get accurate decisions on sutainable
25 productions over a period of time without pressure

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1 drop?

2 Α No, I think we've seen a enough from the 3 bottomhole pressure work that those are sutainable because they do have original bottomhole pressure in 4 the field, which is about 4,014 pounds. And they have 5 6 strong tubing pressures and appear to be good wells that should hold up similar to some of the other 7 8 wells. But you're telling me that the production 9 Q 10 information is limited on those two wells to 25 days 11 and one or two days on the other? 12 Α Yes, sir. 13 CHAIRMAN LEMAY: Additional questions of 14 the witness? 15 (No response.) 16 CHAIRMAN LEMAY: That's all I have. Thank you. You may be excused. 17 18 MR. KELLAHIN I'd call Mr. Mike Gregory. 19 DIRECT EXAMINATION 20 BY MR. KELLAHIN: Mr. Gregory, would you state your name and 21 0 22 occupation? 23 Α My name is Mike Gregory. I'm vice president in marketing for Hallwood Petroleum. 24 25 0 Where do you reside, sir? HUNNICUTT REPORTING

Denver, Colorado. 1 A 2 0 Describe what it is you do for your company insofar as it applies to the Cat Claw Draw Morrow gas 3 4 pool. 5 Α It is my job to secure markets for 6 production of gas. And how long have you been doing that for 7 0 8 your company? 9 Α Since November of 1984 when I became 10 employed at Hallwood Petroleum. 11 MR. KELLAHIN: We would tender Mr. Gregory 12 as an expert in gas marketing. 13 CHAIRMAN LEMAY: His qualifications are 14 acceptable. 15 BY MR. KELLAHIN: 16 Q Mr. Gregory, summarize for us on a 17 pool-wide basis, where is this gas going to market? 18 Α We are going to be selling the company to 19 Gas Company of New Mexico directly with the sales 20 contract which we have been negotiating with recently. 21 During periods when they don't need the gas directly 22 for their system supply, we use them to transport the 23 gas to off-system markets beyond the El Paso Natural 24 Gas System. If Gas Company is not taking the gas 25 towards its supply, we have it transported by Gas

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72 1 Company to all off-system markets on either 2 Transwestern's pipeline system or El Paso Natural Gas 3 pipeline system. 4 0 That's the market for your share of the 5 pool production? 6 Α Yes. 7 Do you have a market demand that is in Q excess of the allowables that we're proposing? 8 9 A Yes, sir. 10 You can take all the gas that these wells 0 will produce, can't you? 11 12 Α That's correct. What is the market situation for other 13 0 14 operators in the pool? 15 Α I imagine it is similar to ours during the 16 six months we're talking about, which is the winter 17 There is typically much more demand for months. 18 natural gas than supply in this area. 19 Q Are you aware of any other operator or 20 owner with production in the pool that has not been 21 able to obtain a market if they wanted to? 22 No, sir. Α 23 0 Are you familiar with the pipeline capacity 24 of the gathering systems that take this gas into the 25 qas company system?

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Yes, I am. 1 Α 2 Do you know whether or not there are any Q pipeline capacity restrictions so that this additional 3 4 allowable, if approved by the Division, can in fact be 5 transported from the wells to the market? 6 Α I'm aware of no restrictions. In fact, 7 I've been told by the purchaser that they've got more 8 than enough demand to accommodate our supply. 9 If the market demand that you're trying to 0 meet is not satisfied with the additional allowable 10 11 for the Cat Claw Draw Morrow, would you get the gas to 12 satisfy that market? 13 You mean where would the gas company get A 14 its gas to satisfy its market if we don't deliver to 15 them? 16 The first question is, can you on behalf of Q 17 your company satisfy their needs if you can't get it 18 out of the Cat Claw Draw? 19 We could sell them gas from other sources, A 20 but --21 0 It would be from a different pool. 22 A Yes. 23 Q And conversely if you cannot make the 24 market that the gas company has for your gas out of 25 Cat Claw Draw, they'll have to go to alternative HUNNICUTT REPORTING

1 markets or sources of supply. 2 Α That's correct. 3 Q No further questions of Mr. Gregory. 4 CHAIRMAN LEMAY: Questions of the witness? 5 CROSS EXAMINATION 6 BY MR. CARLSON: 7 Q This is a prospective with the gas company? 8 Α Yes, actually it's an amount to an existing 9 contract. 10 You have been marketing the gas to gas 0 11 company over the last whatever periods we're talking 12 about here, a year and a half? 13 A Yes. Either as a direct sale to Gas 14 Company or an arrangement where they transport for us 15 to other markets. 16 MR. CARLSON: That's all. 17 CHAIRMAN LEMAY: That's all. Thank you. 18 You may be excused. Mr. Kellahin? 19 MR. KELLAHIN: Mr. Chairman I'd like to 20 make a presentation on behalf of Marathon for the 21 Blinebry pool. 22 CHAIRMAN LEMAY: Can we assume your 23 testimony on behalf of Hallwood is completed? MR. KELLAHIN: Yes, sir. 24 25 CHAIRMAN LEMAY: And this on behalf of

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75 1 Marathon --2 MR. KELLAHIN: Yes, sir. Different topic. CHAIRMAN LEMAY: You may proceed. 3 4 DIRECT EXAMINATION 5 BY MR. KELLAHIN: Q 6 Would you please state your name and 7 occupation? 8 Α My name is Ronald J. Folse. I'm a senior reservoir engineer with Marathon in Midland. 9 Mr. Folse, on prior occasions have you 10 Q 11 testified for the Division? 12 No, I have not. Α 13 Summarize for us your educational 0 14 background and your employment experience. 15 A I completed my Bachelor of Science degree 16 from Louisiana State University in 1976. I've been 17 working with Marathon Oil Company since 1977 in 18 capacities of production, operations, reservoir 19 engineer. I have also been engineering supervisor, 20 and am currently located in the Midland. 21 0 Then do parts of your duties include the 22 Blinebry gas pool production for your company? 23 A Yes. 24 Pursuant to those duties have you made Q 25 yourself informed on the proration system insofar as HUNNICUTT REPORTING

76 1 it applies to that? 2 Α Yes. 3 Q Based on your study do you have recommendations to the Commission for a pool allowable 4 5 on a monthly basis for market demand for that pool? 6 Α Yes. 7 MR. KELLAHIN: We would tender Mr. Folse as 8 an expert engineer in petroleum. 9 CHAIRMAN LEMAY: His qualifications are 10 acceptable 11 BY MR. KELLAHIN: 12 Q What is your recommendation to the 13 Commission, Mr. Folse? 14 My recommendation is that the monthly pool Α 15 allowable for the Blinebry, which is line 4, be 16 increased to 694,645, MCF per month. 17 In arriving at that recommendation and Q 18 conclusion, have you made a search and determined whether or not you have a market demand to meet that 19 20 allowable, if approved? 21 Yes, we have. Α 22 Have you also looked at the pool 0 23 deliverability to determine that the wells in fact 24 have the capacity to produce that allowable, if 25 approved? HUNNICUTT REPORTING

1 Yes, we have. Α 2 Have you also determined that the pipeline 0 3 gathering system has the capacity to take the initial gas? 4 5 Α Yes. In your opinion will the approval of that 6 0 7 allowable level cause any harm to the marginal wells 8 or to any other operator in the pool? It will not. 9 Α 10 Let's turn to your exhibit booklet, Mr. Q 11 Folse. And have you first identify Exhibit Number 1. 12 Α Exhibit Number 1 is the map of the Blinebry 13 pool, which indicates marginal and nonmarginal gas 14 wells. 15 Let's stop for a minute. How do you 0 16 distinguish between the marginal and nonmarginal gas 17 wells on this display? 18 The marginal gas wells are indicated by the Α smaller dots. The nonmarginal gas wells are the 19 20 larger dots. The color coding represents the various gathering system transports. 21 22 Have you reviewed the production from the Q 23 pool and determined historically whether the 24 nonmarginal wells in the pool have been utilizing the 25 allowable assigned to those?

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1 Α Yes, we have. And what did you find out? Are your 2 Q nonmarginal wells overproduced? 3 Α The nonmarginal wells, yes, are 4 5 overproduced currently. 6 0 What have you done to determine and satisfy 7 yourself, Mr. Folse, that the nonmarginal wells have 8 the capacity to deliver the additional gas if this 9 allowable level is approved? 10 Α Based on the recent well testing, which is indicated in Exhibit 2, we have produced Marathon 11 12 nonmarginal wells at higher rates to indicate its higher deliverability over the current allowables. 13 14 0 Describe for us how the tests were 15 conducted. 16 Α The tests were conducted -- current wells, 17 nonmarginal wells for Marathon are operated with 18 chokes, restricting chokes. The tests of this period 19 of time, seven days in August, were run with the 20 chokes fully open. The wells, as indicated in Exhibit 21 2, were then recorded daily, and for the rates 22 averaging the three wells indicated in the table of 23 over 1.7 million a day. 24 Approximately how many nonmarginal wells Q 25 are currently on the proration schedule for this pool?

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79 1 Α There are approximately 16 nonmarginal 2 wells. 3 0 And how many marginal wells are approved? Do you know? 4 5 Α There are approximately 97 marginal wells 6 total. 7 0 Have you made a plat to demonstrate how the 8 nonmarginal wells are operated by your company which 9 are being produced in relation to their allowables in the overproduction or OP limit assigned in the 10 11 schedule? 12 Α Yes. 13 0 Is that displayed on Exhibit 3? 14 Yes, it is. A 15 Q Show us what you've done. 16 Α Exhibit 3, entitled "Blinebry Pool, The 17 Nonmarginal Wells, Marathon Well," we've platted the 18 allowables starting in January 1989 through the period of June 1991. The allowables are in red. The sales 19 20 volumes are in green, and the cumulative 21 overproduction limits are in purple. 22 Okay. Let's follow the sales of the green 0 23 line and compare that to the allowable as well as the 24 OP limit, and tell us how the wells are being operated 25 and managed in relation to the allowables. HUNNICUTT REPORTING

1 Currently the wells are being operated Α 2 monitoring the allowables. Over a period of time when 3 the sales exceed the allowables, the well is -- rates 4 are reduced to bring the overproduction limits closer Once the overproduction limits reach a fairly 5 down. 6 reduced volume, in particular toward the -- after 7 January 1991, our sales volumes are increased over the 8 allowables. And at the present time, the wells are 9 currently being restricted to come within the limits 10 set by the allowables.

11 Q If you'll look in the center of that 12 display in that period of March and April of '90, do 13 you see where the sales drops to the bottom of the 14 chart and then it goes back on up to about the 200,000 level? What is going on during this period of time? 15 16 Α During this period of time there apparently 17 is a sales booking correction. Apparently the March

18 bookings for these particular wells were less than 19 they should have been, and had been corrected in 20 April.

21 Q So we have to ignore the March and April 22 displays on this plat because the date is incorrectly 23 displayed.

A That's correct.

Q

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Ignoring that then, what is your conclusion

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1 or major point about the information shown on this display? 2 3 Α In conclusion, the Marathon nonmarginal 4 wells are currently able of producing higher than the 5 allowables due to market demands, but are being restricted due to the allowables -- current 6 7 allowables. 8 Q If the allowable level is approved by the 9 Commission that you have requested, where would that put us on the vertical scale for this display? 10 11 А Could you repeat that? Sure. On the vertical scale you've platted 12 0 13 various allowables and MCF per month. 14 Α Correct. 15 Q All right. If the Commission accepts the 16 additional allowable you're putting into the system, 17 what is your monthly allowable level for your 18 nonmarginal wells? 19 Α The monthly allowable for the nonmarginal 20 wells would total 537,500. Monthly nonmarginal pool 21 allowables? 22 Q Let's start over. On a nonmarginal well, a 23 single nonmarginal proration unit, if your allowable 24 request is approved, what would that well receive on a 25 monthly basis?

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1 Α That well would receive approximately 50,000 MCF. 2 So if we look at the plat on Exhibit 3 and 3 Q multiply the 50,000 times the amount of nonmarginal 4 5 wells, what level would that put us at? 6 That would put us at right at 200,000. Α 7 Have you gone on Exhibit 4 now and 0 tabulated that same type of information not only for 8 9 Marathon's wells but all the other nonmarginal wells? 10 Α Yes. 11 Q And that's Exhibit 4? 12 Α Exhibit 4. 13 Tell us what this shows. 0 14 Α On Exhibit 4 the similar data is platted, 15 which would be the allowables, the sales, and the OP, 16 overproduction status of all the wells. There are two 17 periods of time where numbers go below zero, which 18 apparently are caused due to nonmarginal wells being 19 shut-in causing an underproduction status until the 20 wells are being reclassified. The overproduction 21 status goes above zero. The exhibit indicates though, 22 that in total for the nonmarginal wells, the sales are 23 fairly close to the allowables. 24 Q When we look at the two sharp dips in the 25 display on the OP limit in July and again in March of

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1 1990, what does that reflect? 2 Α That, again, reflects the situation where 3 there are shut-in nonmarginal wells that are affecting the overproduction limit by the underproduction. 4 And 5 at some point in time, in particular July and March, 6 those years, the well being reclassified to the 7 marginal status; therefore, being taken off the 8 nonmarginal wells. 9 In your opinion are the nonmarginal wells 0 10 being controlled by the allowable ceilings established 11 on the OP limit rather than market demand? 12 A That's correct, yes. 13 So the sales would have been higher to meet 0 14 market demand except it hit the OP limit and shut-in 15 to come into balance with the pool? 16 A That's correct. 17 Turn to Exhibit 5. Describe and identify 0 18 that for me. 19 A Okay. Exhibit 5 is the accumulation of the 20 Blinebry pool for all their wells. 21 These would be all your marginal and Q 22 nonmarginal wells? 23 Α That's correct. It indicates the total 24 allowable, which is in green, and total sales, which 25 is in red, indicating that the Marathon has typically

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or normally tried or has attempted to meet all the 1 2 allowables. And in particular, after January 1991, due to market demands, have actually exceeded the 3 allowables. 4 5 0 What is your ultimate conclusion then about 6 the preliminary estimates for allowables for this pool 7 that you saw on Exhibit Number 1 and introduced at the hearing this morning? 8 9 Α That they are low. 10 Q What in your opinion would be the allowable 11 level necessary in order to establish market demands 12 of the pool? 13 Could you rephrase that? Α 14 0 Sure. What in your opinion is the 15 appropriate monthly pool sales average to plug into 16 the allowable system? 17 A That would be the 694,645 for the total 18 pool allowable. 19 Have you made an effort to contact other Q 20 operators in the Blinebry pool to determine whether or 21 not there was any objection to increasing the 22 allowables above the level on the preliminary 23 recommendations established by the Division? 24 Yes, we have. Α 25 And have you met any opposition to 0

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1 increasing the allowables?

2 A We have. One of the operators has 3 indicated after some discussion that he felt the 4 allowables as proposed of approximately one million 5 cubic feet a day was acceptable. What operator was that? 6 0 7 Α That was John Hendricks. 8 Q If the allowable level that you proposed is 9 accepted, what would that be on a daily basis for a 10 nonmarginal well? 11 Α On a daily basis it would be 1,667 MCF per 12 đay. 13 0 So you're asking for another 667. 14 A That's correct. 15 0 Above what looks like to be an average on a 16 daily basis of just about 1,000 MCF a day? 17 That's correct. Α 18 0 Approximately what percentage of the 19 operators in the pool did you contact or were able to 20 contact about increasing the allowables? 21 We had contacted or made an attempt to Α 22 contact all of the nonmarginal well operators. And we 23 have contacted 74 percent of the marginal well 24 operators. 25 Q Have you received any objection from the

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1 nonmarginal well operators? 2 A The only objection was from John Hendricks. And he has a nonmarginal well? 3 Q 4 Α He has one nonmarginal well. 5 Q Have you determined whether or not the 6 pipelines from your perspective have such capacity to 7 handle the additional gas if this allowable level is 8 approved? 9 Α Yes, we have. 10 0 And what did you find out? We found that there was -- there were no 11 Α 12 problems with handling the additional gas. 13 Is there going to be an increase in line 0 14 pressure that would cause more wells to be displaced 15 from the systems? 16 Α There would not be, no. 17 MR. KELLAHIN: That concludes my 18 examination of Mr. Folse. We would move the 19 introduction of his exhibits, Exhibits 1 through 5. 20 CHAIRMAN LEMAY: Without objection, 21 Exhibits 1 through 5 will be admitted. 22 Ouestions of the witness? 23 CROSS EXAMINATION 24 BY MR. WEISS: 25 Q This pool is not unitized. HUNNICUTT REPORTING

No, sir. 1 Α MR. WEISS: That's all. Thank you. 2 CHAIRMAN LEMAY: Just a little 3 clarification. 4 5 CROSS EXAMINATION 6 BY MR. LEMAY: 7 On your nonmarginal operators you say you 0 8 contacted 100 percent of them with one opposed? 9 Α No. 100 percent of them with no opposed. 10 Q Talking about the nonmarginal. 11 Α Nonmarginal. 12 I thought Mr. Hendricks recommended a 0 million a day rather than 1.6. 13 14 Α Well, the first conversation with him he realized that there wasn't any problem because he does 15 16 have a nonmarginal well. Further conversations with 17 him, they do have 10 marginal wells. Then he restated 18 his comments that he felt that a million a day or 30,000 per month was acceptable. 19 20 He restated his opinion of what was Q 21 acceptable? 22 Α For the Fl factors? 23 0 Yes. For the wells, nonmarginal wells was 24 Α 25 acceptable at 30,000 as opposed by Mr. Jim Morrow. HUNNICUTT REPORTING

1 Can we clarify the record? He was opposed 0 2 to your recommendation and supported Mr. Morrow's 3 recommendation then? That's correct. 4 Α 5 0 Out of the 16 nonmarginal wells, how many 6 operators are there of nonmarginal wells? 7 Α Out of the -- rephrase that please. 8 Q Your testimony I think showed 16 9 nonmarginal wells and 97 marginal wells. 10 That's correct. Α 11 0 How many operators are there of the 16 12 nonmarginal wells? 13 I believe there are eight operators. Α 14 Eight operators. And all eight were Q 15 contacted, were they? 16 Yes, sir. Α 17 With only one opposed. 0 18 Α Right. 19 0 Basically. 20 Α Yes, sir. 21 CHAIRMAN LEMAY: Are there any additional 22 questions of the witness? 23 (No response.) 24 CHAIRMAN LEMAY: Thank you. You may be 25 excused. Mr. Kellahin?

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MR. KELLAHIN: Thank you. Mr. Chairman, I 1 2 would like to call at this time Mr. John Gilbert. DIRECT EXAMINATION 3 4 BY MR. KELLAHIN: Mr. Gilbert would you state your name and 5 0 б occupation sir? My name is John P. Gilbert, employee of 7 Α Marathon Oil Company, natural gas market. 8 9 How long have you been employed by your Q 10 company as gas marketer? 11 Α Right at exactly one year. 12 Now, what is your involvement with 0 13 production from Marathon's well regarding the Blinebry 14 qas pool? I sell the gas from the Blinebry pool on a 15 Α 16 30-day spot market. 17 Give us a general summary of the market 0 conditions for pool production on a pool-wide basis 18 19 for this pool. We have plenty of demand for gas out there. 20 Α 21 I have no problem at all placing our gas on the 30-day spot market. Often during the months I have phone 22 23 calls from parties seeking more gas, which of course I 24 placed and cannot provide. Where is your produced gas ultimately 25 Q

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1 consumed? 2 Α It is moved into the El Paso main line for California market. 3 Is that true of the other operators of the 4 0 5 production for the Blinebry pool? 6 Α Yes. 7 0 That is, it moves through the El Paso 8 system and moves on to the California market? 9 Α That's correct. 10 Are you aware of any capacity problems in 0 11 the systems available for pool production that would 12 displace any of the gas volumes if the allowable 13 levels were increased as Marathon requests? 14 No, sir, I believe no problem exists. Α In 15 fact, I talked to Northern Natural Gas, who of the 16 10.75 net wells, the acreage factor, Northern Natural 17 gathers 8.25 of those wells. Northern Natural was my main concern, and I talked to the field dispatcher of 18 19 Northern Natural Gas in Hobbs, New Mexico, and asked 20 him about the -- this question specifically. And he 21 stated that actually the increased production would be 22 welcomed to their system for their 20 pound pressure 23 efficiencies. 24 Do you have Exhibit 6? Do you have a copy 0 25 of that in front of you?

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1 Α Yes. 2 And you've prepared this display? 0 Yes. I prepared it from the gas proration 3 Α 4 schedule. When you looked at those wells gathered by 5 0 6 Northern Natural, what did you find? 7 Well, there are four operators that have Α wells gathered by Northern Natural. As I stated 8 9 moments ago, 8.25 net of the 10.75 are gathered on 10 Northern's system. 11 0 The El Paso system then has the Arco and 12 Exxon? 13 Yes. El Paso gathering system has Arco and Α 14 Northern has Hendricks, Marathon, Mobile, and Exxon. 15 Chevron, or an 8.25 acreage factor. Warren has .25 16 and Texaco has .25. 17 0 These are the nonmarginal well units? 18 Α Yes. 19 Do you see any opportunities for a 0 disparity or inequity between the four gathering 20 21 systems if the allowable levels are increased for the 22 pool? 23 Α No, sir, I don't. 24 Are there any pipeline pressure problems 0 that you're aware of that would be caused if the 25 HUNNICUTT REPORTING

1 allowable levels are increased?

2	A No, sir, there isn't. As I stated moments
3	ago, Northern maintained a 20-pound line pressure out
4	there. And the seven some odd million a day increased
5	production that in fact Marathon proposed were over
6	and above what the state is recommending. And
7	assuming the well could produce the additional MCFD, I
8	mentioned that to Northern Natural gas, and after
9	talking to Northern Natural Gas, the increased
10	production would be welcome for pressure efficiency
11	and the line pressure would not be increased, but
12	maintained at 20 pounds.
13	Q Is there a market demand for this
14	additional gas if the allowable was increased not only
15	for Marathon's share of the gas, but for all others
16	that produce that gas in this pool?
17	A Yes, sir, there is.
18	MR. KELLAHIN: That concludes my
19	examination.
20	CHAIRMAN LEMAY: Additional questions of
21	the witness?
22	(No response.)
23	CHAIRMAN LEMAY: I've got one, and you're
24	not obligated to answer this if the question implies
25	something that your company keepsconfidential.

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93 1 CROSS EXAMINATION 2 BY CHATRMAN LEMAY: 3 Q Since you're involved in the spot market, do you know if you've ever chosen not to sell 4 production because the price is too low? 5 6 A We have maintained our gas production. We 7 have kept our gas flow. 8 0 Without any -- the price never got low enough to where you decided --9 There has been discussion. 10 Α CHAIRMAN LEMAY: That's all I have. 11 Any 12 other questions of the witness? 13 (No response.) 14 CHAIRMAN LEMAY: Thank you. 15 MR. STOVALL: Mr. Chairman, I'd like to be 16 clear -- not with this witness -- but Commissioner 17 Weiss asked a question. Were you under the 18 understanding, Commissioner Weiss, that the Cat Claw 19 Draw pool was unitized? I don't think that is 20 correct. I think that was -- when the term unit was used, I believe that was proration unit. Is that 21 22 correct, Mr. Kellahin? 23 MR. KELLAHIN: It was a proration, spacing 24 units as opposed to the conventional unit we're talking about that would have multiple spacing units. 25

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1 CHAIRMAN LEMAY: At one time, correct me if 2 I'm wrong, that field was unitized, but it was under 3 Hannigans. Was it not? MR. KELLAHIN: I think Hannigans sold to 4 5 Tennaco. Tennaco eventually ended up with Hallwood. 6 A portion of the pool was unitized, but a substantial 7 portion was not. 8 CHAIRMAN LEMAY: So it's your recollection, Mr. Kellahin, there were no more unitized areas in 9 10 that pool in terms of a unit agreement? 11 MR. KELLAHIN: I'd be happy to check, but my 12 recollection is there is no unit in effect at this 13 point. CHAIRMAN LEMAY: If you could, Mr. 14 15 Kellahin, could you submit something to us concerning the unitized status, not proration unit, but the 16 17 unitized status of that pool? 18 MR. KELLAHIN: Yes, sir. CHAIRMAN LEMAY: 19 Thank you. 20 MR. KELLAHIN: I have a presentation for 21 Chevron, if I may. 22 CHAIRMAN LEMAY: You may continue. 23 MR. KELLAHIN: Call Mr. Mark Corley. 24 25 HUNNICUTT REPORTING

1 DIRECT EXAMINATION 2 BY MR. KELLAHIN: Mr. Corley, for the record would you please 3 0 4 state your name for the record? Mark Corley. I reside in Midland, Texas. 5 Α 6 My occupation is a gas engineer for Chevron, USA, in 7 Midland Texas. 8 0 Have you on prior occasions testified 9 before the Division or the Commission? 10 Α No, sir. 11 0 Summarize for us your educational 12 background and your employment experience. 13 A My educational background, I have a 14 Bachelor of Science degree in petroleum engineering 15 from the University of Texas. I have been employed 16 with Gulf/Chevron since 1980, approximately 11 years. 17 I've been in my current capacity job for a little over 18 a year. Prior to that I was in gas marketing for one year. Prior to that I held various positions as 19 20 reservoir engineer with Chevron and Gulf. 21 As part of your duties have you watched the Q 22 Eumont and Jalmat's production for that pool? 23 Yes, sir, it's a very key job Α 24 responsibility. 25 0 Have you made yourself knowledgeable and

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familiar with the proration system as it applies to 1 the production from those two pools? 2 3 Α Yes, sir. MR. KELLAHIN: We would tender Mr. Corley 4 as an expert petroleum engineering. 5 6 CHAIRMAN LEMAY: His qualifications are 7 accepted. BY MR. KELLAHIN: 8 9 0 Summarize for us what you want to demonstrate to the Commission today about principally 10 the Eumont pool, but some of those also apply to the 11 12 Jalmat. 13 Chevron sees this hearing as an opportunity Α to update the commissioners and also Mr. Morrow on the 14 positive impact of the minimum six-month allowables, 15 600 MCF per day in the Jalmat/Eumont fields, and the 16 benefits that Chevron has realized from those, and 17 18 also the proposed adjustments from the period of October '91 through March of '92, continuing the six 19 20 MCF allowable with adjustments is acceptable to 21 Chevron. As a result, direct result of the 22 Q establishing minimal pool allowables for both of those 23 pools, 600 a day, can you quantify the activity that 24 has increased on behalf the Chevron's operation within 25

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1 the Eumont gas pool? 2 Α Yes, sir. Have you reduced that to a display? 3 0 4 Α Yes, sir. It's shown in Exhibit Number 1. Identify and describe the points that you 5 0 6 want to present on this display. Exhibit Number 1, the tabular form the 7 Α Chevron activity is presented as history in 1989 8 9 before the minimum allowable in place. We had Chevron 10 operate an average of 78 wells that produced approximately 11,500 MCF per day. In 1990 we produced 11 an average of 80 wells that produced a little over 12 13 13,000 MCF per day. The key item as of October 1991, you see that we will have 98 wells on production for 14 15 an estimated average of 21,225 MCF per day. This 16 represents a change of 18 additional wells. That breakdown is eight new drills and 10 workovers which 17 18 we plug back to the Eumont. Also our production change is approximately 19 20 8,000 MCF per day, incremental over 1990. Percent 21 change is about 37 percent increase in production. Also footnoted is 18 a day, we average 440 MCF per day 22 for those big wells. And also that the production can 23 24 range from 150 to 1200 MCF per day for an individual 25 well.

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Q How has the establishment of a minimal
 allowable increased this activity?

A This increase in activity gives Chevron a more reliable basis to present their drilling programs. Budgeting a normal well requires about a year's time to pay out the expenditure. And with the six-month period, that gives us a better basis to forecast and present to management our claims.

9 Q You're obtaining a pool for the drilling 10 workover and recompletion of wells that you would not 11 otherwise obtain approval for if you didn't have a 12 minimum allowable.

13 A Exactly. The activity shown would not have
14 been done without the minimum allowables.

15 Q Turn to Exhibit Number 2 and demonstrate to 16 us the terms of impact of additional gas that has gone 17 out of the Eumont gas pool as result of establishing a 18 minimum gas allowable.

The Exhibit Number 2 is a graphic 19 Α 20 illustration of Chevron's Eumont gas production. You can see on the left it is a linear plat with MCF per 21 22 day on the left, and across the bottom we have a monthly scale. Referring to 1989, prior to the 23 minimum allowables, you can see there is an erratic 24 25 and unstable production due to monthly allowable

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1 assignments.

2	Moving into 1990, we did have four months
3	of temporary 600 MCF a day allowables. You do see
4	September of 1990 as a real short month, explaining
5	that our major gas processor shut down the plant for
6	approximately 16 days. So that figure of 90
7	represents a half month's production. The overall
8	trend for 1990 was encouraged with this four months.
9	However, the temporary basis of the allowable did not
10	allow any increased activity other than the two wells
11	I showed on the previous exhibit.
12	Moving on to 1991, after the minimal
13	allowable took effect, the first five months of the
14	year we have put on production five of those 18 wells.
15	You can see on a trend basis our production is on the
16	incline. The lightly shaded bars in June of '91 is
17	where our projected forecast for these wells starts.
18	The projection is based on previous six months, which
19	equates to 14,500 MCF per day. And it's also
20	illustrated at a 10 percent decline rate per year,
21	which is a very historical trend for our Eumont
22	production, around 18 percent per year.
23	Moving on to October of '91, you see the
24	slanted bars. This is the 13 wells waiting on
25	pipeline connection coming on connection in October.

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That's an increase of about 7200 MCF per day. Going 1 on to December of '92, you can see by the legend 2 that's labeled Phase II, a hatched bar on the very 3 4 top. This represents the continuation of the '91 program. We anticipate that these four wells will 5 6 produce 500 MCF per day per well, times four, as an additional 2,000 MCF to the pool. The combination of 7 8 Phase I, Phase II, plus the existing projected production shows a peak of about 23,000 MCF per day as 9 10 compared to 14,500 in June of '91. 11 In your opinion is there a continued need 0 for the incentive of having a minimum allowable in 12 13 both of these prorated gas pools? 14 Yes, sir, the allowable through our Α 15 activity has shown that it helps us in draining our 16 acreage and preventing waste to the reservoir. 17 And you'll continue to meet the minimum Q 18 allowable to encourage further development? 19 Yes, sir. The 1992 program is about four Α 20 to six new wells for 1992 and numerous workovers. 21 MR. KELLAHIN: That concludes my 22 examination, Mr. Chairman, of Mr. Corley's presentation. We would request the introduction of 23 his exhibits. 24 25 CHAIRMAN LEMAY: Exhibits 1, 2, and 3 will

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1 be admitted into the record. Questions of the 2 witness? 3 (No Response.) 4 CHAIRMAN LEMAY: Thank you. You may be 5 excused. 6 MR. STOVAL: Mr. Chairman, if I might 7 suggest, I've talked to the parties who have 8 additional witnesses. And Amoco and Unocal are the 9 only two that have definite plans. And Gas Company of 10 New Mexico is -- won't know whether they want to put 11 anything on until after they have heard Amoco and 12 Both have indicated to me their presentations Unocal. 13 are shorter than any of the ones we have heard so far, 14 and then Gas Company can then at that time make a 15 decision whether they want to or you can decide 16 whether you want to take a lunch break at that time. 17 That would be my recommendation unless there are any 18 other parties that want to make presentations. 19 CHAIRMAN LEMAY: Let's hear from Amoco and 20 Unocal. 21 MR. STOVALL: What I meant by that 22 statement, would you rather put them on before lunch? 23 CHAIRMAN LEMAY: Yes, sir we would. At this time Amoco will make its presentation. You may 24 25 continue, Mr. Nitcher.

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MR. NITCHER: Mr. Chairman, I'd like to 1 2 call Mr. Bill Hawkins. DIRECT EXAMINATION 3 BY MR. NITCHER: 4 Mr. Hawkins, would you please state your 5 0 6 name and business address for the record? 7 A James William Hawkins. I work in Denver, 8 Colorado, for Amoco Production Company. 9 0 And in what capacity are you employed? 10 I'm a senior petroleum engineering Α 11 associate assigned to regulatory affairs in the states 12 of New Mexico and Colorado. Have your qualifications been previously 13 Q 14 accepted by this Commission as an expert in petroleum 15 engineering? 16 A Yes they have. MR. NITCHER: I would offer Mr. Hawkins at 17 18 this time. 19 CHAIRMAN LEMAY: His gualifications are 20 accepted. 21 BY MR. NITCHER: 22 Mr. Hawkins, give briefly an overview of Q 23 what your testimony is here today. 24 Today I'd like to recommend some proposed Α 25 adjustments to the preliminary allowable schedule. HUNNICUTT REPORTING

It's been presented by the AMOCD. This will be related to the pools in northwest New Mexico.

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Q Mr. Hawkins, you have prepared two exhibits
which you have handed out. Would you please briefly
discuss these exhibits? And tell the Commission what
the importance of the exhibits are.

7 Look at Exhibit Number 1, please. This Α 8 shows the San Juan basin pool balance for nonmarginal proration units. It's a graphical depiction for each 9 10 of the four pools in northwest New Mexico. The graph shows at the bottom, the date, the numbers are -- the 11 12 first two numbers would be the year, the second two 13 numbers would be the month. So it runs approximately 14 June '89 through April of '91. And on the vertical 15 scale is an MCF, and this is overage production which 16 is production related to the allowable. The numbers 17 in parenthesis indicate overproduction or wells that produce greater than the allowable. 18

19 The exhibit shows that for the last two 20 years the nonmarginal wells have been overproduced but 21 are attempting to come back into balance. This is a 22 little bit misleading in that for this same period of 23 time a number of -- excuse me, the majority of wells 24 in these pools have become marginal. And there are 25 fewer and fewer wells that are left in the nonmarginal

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category. And this is primarily because of the high
 levels that have been established in these pools in
 the past.

4 For example, with Amoco's wells in about mid-1989, about 30 percent of the wells that Amoco 5 6 operates were in the marginal category, about 70 7 percent in nonmarginal category. By the time it 8 entered the graph, around the middle of 1991, less 9 than 25 percent of Amoco's wells were left in the 10 nonmarginal category. About 75 percent now in the 11 marginal category. What this means is there are fewer and fewer wells actually participating in a pool 12 13 balance.

14 Q Thank you, Mr. Hawkins. Could you move on 15 to Exhibit Number 2 and explain to the Commission the 16 importance of this exhibit?

17 Α Yes. Exhibit Number 2 is a listing that 18 shows for each of the four pools Amoco's recommended 19 adjustments to the allowables as recommended by the 20 AMOCD. We agree we should make these adjustments to 21 the actual pool sales for the mirror image, or I guess 22 what I'd call the period last year. And that is the 23 recommendation from the AMOCD.

If we start down and take as a sample run
through the calculations for the Basin Dakota, I think

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you will get an idea of how this works. In the Basin 1 Dakota the first column shows the pool balance of 389 2 cubic feet of gas overproduced. That's for the 3 nonmarginal wells. That should be the same number 4 that was shown at the end of the graph on Exhibit 1. 5 If we then look at the current period that 6 7 we're in, April through September, the average monthly 8 allowable, eight and a half BCF per month. They have 9 also published with notice of this hearing the average 10 monthly sales for April and May, which is the third 11 column, 614 BCF. If you take the difference there and 12 13 multiply that times two, is the next row, row four, it 14 would show that we have underproduced the pool by 4.4 15 BCF, which is going to significantly impact the pool balance. If you add that difference to the pool 16 17 balance shown on the first column, or first row, and 18 you get to row five, it shows as of June 1st then the nonmarginal pool balance would be four BCF 19 20 underproduced. 21 Based on the recommendation of the industry 22 committee, that was put together about a year ago, 23 Amoco participated in that. Recommendations at that 24 point were to make a 10 percent adjustment in these 25 imbalances in order to bring the pools back into

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balance. So we would take the number 37.996 BCF, divide it by 10 to get a 10th for the correction, and spread that over six months. So divided again by six it comes up with a 66 million cubic feet per month adjustment, downward from the previous period sales.

6 And I guess if you look at the Blanco Mesa Verde column, I'm not going to repeat all the numbers, 7 8 but the pool does start out in an overproduced state. 9 If you compare the sales to the allowable, the first two months of this period we actually overproduced the 10 11 allowable there as opposed to underproduce it. That 12 adds to more overproduction and balance. And it does 13 indicate you need a positive adjustment for that pool. 14 The adjustments that we were to look at for

Blanco Mesa Verde, Tapacito, you would come to the same conclusions, some negative correction to the allowable, and these adjustments which should start to bring the pools back into a balance.

Now, these adjustments that we're recommending are small enough that they are not going to represent any significant curtailment in production. But they will tend to bring the pool back into balance.

24 Q Mr. Hawkins, in a prorated system or pool, 25 in your opinion is it important to consider over- and

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1 underproduction from the pool in setting an allowable 2 or --Yes, in my opinion it is. In fact, we 3 Α 4 talked to Mr. Morrow. I think he thinks it should be 5 considered also. He has made some recommendations 6 based on overproduction. In my opinion you need to 7 make some corrections when you're in an 8 underproduction or underproduced state as well. 9 MR. NITCHER: I have no further questions. 10 CHAIRMAN LEMAY: Thank you. Questions, Mr. 11 Stovall? 12 MR. STOVALL: I do have one question just 13 for clarification of Mr. Hawkins. 14 CROSS EXAMINATION 15 BY MR. STOVAL: 16 Q Do you have a copy of the Commission's 17 recommendation that was submitted today? 18 Α Yes, I do. 19 0 Exhibit Number 2 is what I'm looking at, 20 the northwest pool. 21 Α Right. 22 The Commission recommended adjustment of Q 23 46,000. Is your recommendation of 29,000 in addition 24 to or in substitution of? 25 Α In substitution of.

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1	MR. STOVALL: Okay.
2	CROSS EXAMINATION
3	BY MS. SMITH:
4	Q Mr. Hawkins, directing your attention to
5	Exhibit 2 are the adjustments that you're recommending
6	listed in items one through six?
7	A The adjustments we're recommending are on
8	row six for each of the four pools. The other rows
9	really kind of lead you through some of the arithmetic
10	to get to the recommended adjustment.
11	Q And are you saying that in each case each
12	of your adjustments are within the 10 percent
13	adjustment range that was recommended by the
14	committee?
15	A I believe we're trying to follow the same
16	methodology that was recommended at that committee,
17	yes.
18	Q And so the answer is yes.
19	A Yes.
20	MS. SMITH: Thank you.
21	CHAIRMAN LEMAY: Thank you, Ms. Smith.
22	Additional questions of the witness?
23	(No response.)
24	CHAIRMAN LEMAY: You may be excused.
25	MR. CARR: May it please the Commission, at
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109 1 this time I would like to call Paul West, Union Oil 2 Company of California. 3 DIRECT EXAMINATION 4 BY MR. CARR: 5 Would you state your name for the record, 0 6 please? 7 Α Paul T. West. 8 0 Where do you reside? 9 Α Farmington, New Mexico. 10 By whom are you employed and in what Q 11 capacity? 12 Union Oil Company. California, as district А 13 production manager. 14 Q Have you previously testified before the 15 Oil Conservation Commission in allowable hearings? 16 Α Yes, I have. 17 0 And at that time were your qualifications 18 as a petroleum engineer accepted and made a matter of 19 record? 20 Α Yes, they were. 21 Q And you reviewed the preliminary 22 nominations that came out with the docket for this 23 particular Commission hearing? 24 Α Yes, I have. 25 Q Have you reviewed those?

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1 Α Yes, excepting the Tapacito P.C. 2 MR. CARR: Are the witness's qualifications 3 acceptable? 4 CHAIRMAN LEMAY: His qualifications are 5 acceptable. 6 BY MR. CARR: 7 Mr. West, what does Unocal seek by 0 8 appearing in this hearing? 9 Α We seek to recommend that the OCD accept 10 the preliminary level of allocation as they have 11 proposed them. 12 Now, the data presented in the Commission 0 13 exhibits here today differ somewhat from the material 14 contained in the preliminary nominations mailed with 15 the packet. 16 Α Yes, they do. 17 0 Does that make -- have any significant 18 impact on your presentation here today? 19 No, they are reasonably incidental changes. Α Could you refer to what has been marked as 20 0 21 Unocal Exhibit Number 1 and identify that please? 22 Α That is just simply a plat of the San Juan 23 Basin, Basin Dakota pool allocation for the six-month 24 winter stretches through the last six years, and also includes the OCD's preliminary estimate for the 25

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preliminary estimate that they had. 1 2 Q Is this basically the same exhibit you presented in the last allowable hearing? 3 No, it is not. 4 Α What is the purpose of this exhibit? 5 0 6 Α It just indicates that the proposal, 7 allocation for this next six-month period is a 8 reduction from the previous years, especially '89, and 9 '90, where the contract situations have been more consistent than we have today. And that's what the 10 11 level indicates. 12 Let's go to Unocal Number 2. Would you 0 13 identify that? 14 Α This is the same kind of a plat for the 15 Blanco Mesa Verde pool. 16 And, again, this just shows the recent 0 17 production from that pool? 18 This shows the allocation for those time Α 19 periods and indicates the same thing. It is just a reduction over '89 and '90. 20 21 0 Are either or both of these pools currently 22 in an underproduced status? 23 Α Yes, they are. 24 Do you believe that the underproduced 0 25 status should be factored into the allowables that

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1 would be set for the next six-month period? I do not believe that should be a basis for 2 A 3 that. Why is that? 4 Q 5 The pool, the mechanism itself if we Α established previous production as a basis for an 6 7 allocation of a pool, it will restrict the better 8 nonmarginal wells. The status of wells in regard to 9 their balance is important. The nature of the system 10 is such that if you establish the same allocations 11 previously produced, the better wells are restrained 12 more than they would be for that previous amount, the 13 previous allocation period, and it just spirals itself 14 down from one six-month period to the next. Of course

15 another real basic reason for not using that as a 16 basis is that if you're talking about previous periods 17 and you try to combine summer and winter, that is a 18 whole n'other ball game because you try to save 19 allocation.

20 Q Let's refer now to Unocal Exhibit 3. Would 21 you identify that for the Commission?

A This gets down to the Fl and F2 factors and how they affect the allocation receipt on the well. The only way it is easy to demonstrate that is by looking at some example calculations. And in the

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1 northwest you have to use an assumed deliverability number, in other words, to look at any examples. 2 What deliverability did you use here? 3 0 I picked 300 MCF per day for the Basin 4 Α Dakota, 400 for the Mesa Verde, 150 for Picture Cliffs 5 6 as representative of a good nonmarginal well. Not necessarily the best, but a very good one. 7 8 0 What does this table actually show? 9 Α It shows the daily allowable to be granted 10 to a well in those pools if it had that certain 11 deliverability, and it indicates that for the estimate 12 '91/92 six-month stretch they would be somewhat in 13 line with the previous two years, very slightly above 14 '89 to '90 and significantly below '90 to '91. 15 0 Now, these recommended rates are below the 16 capacity of wells that are being produced. Is it not? 17 Α That is correct. The actual capacity of a 18 well can also be above the deliverability number, in 19 fact, so that these numbers would be significantly 20 less than the well's capabilities. 21 0 And thses allowables would in fact restrict 22 the production of the pools. Would they not? 23 A That's correct. 24 Why do you believe it is appropriate to 0 25 adopt these numbers?

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A Well, I think that the Commission does have a challenging task of trying to set these allocations in the throes that we have now with the pipeline constraints, and it is kind of a hard thing to hone in on as far as what the allocations should be.

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I think that we do anticipate constraints through this winter period. We have already seen some. We'll probably see more significant restraints through actual work on the systems, the plant turnarounds, mainline work that we have in just the daily constraints and when the system is operating normal.

13 But we do anticipate when they see that the 14 lines are being expanded at this point, and through this six-month stretch it is a fact of life that we 15 16 are going to be constrained. I think in that regard, 17 that these lower levels with allocation are okay. If 18 we were to have a surprise and not have pipeline 19 restrictions, we would be I think unnecessarily 20 restricted. But in all probability these are as good a numbers as we can zero in on right now. 21 I think 22 that they offer protection of any rights issue that 23 might come up and as well any preventional waste 24 issues, and I think they are probably acceptable. 25 Q Were exhibits 1 through 3 prepared by you?

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1 Α Yes they were. 2 MR. CARR: At this time we would move the admission of Unocal Exhibits 1 through 3. 3 CHAIRMAN LEMAY: Without objection Exhibits 4 5 1 through 3 will be admitted into the report. 6 MR. CARR: That concludes my examination. 7 CHAIRMAN LEMAY: Additional questions of 8 the witness? 9 CROSS EXAMINATION BY MR. NITCHER: 10 11 Concerning restriction of production of the 0 12 pool, are you saying that in a prorated pool there 13 should never be restriction on production? No, I'm not. 14 Α 15 MR. NITCHER: Thank you. 16 CHAIRMAN LEMAY: I've got one, I think, Mr. 17 West. Maybe you could clarify it. Six months ago, 18 didn't Unocal conserve allowables in Basin Dakota? 19 Α Yes. 20 Do you have any understanding for or any 0 21 explanation for that? 22 A combination of things. I think that the Α Basin Dakota was increased over preliminaries. Not as 23 24 much as we had requested, but it was increased. And 25 Mesa Verde I don't think was increased very much. Had

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1 we not run into the pipeline restraints, we still would have been underproduced on those wells because 2 3 of the summer period. We would have utilized our 12 4 times over allowables and underproduced throughout the whole stretch with the intent of overproducing for 5 6 this upcoming six-month stretch. It looks like that 7 is all for naught now because of the pipeline 8 restraints. 9 0 Thank you. 10 Α In a normal year we would have 11 underproduced and we have done that, underproduced 12 through the periods April through September. 13 0 Is it fair to characterize your testimony 14 as you withheld production to build allowables for 15 this last six-month period? 16 Α That is correct. Okay. You say in this 17 particular past six months? 18 Q Yes. 19 Α It's been a combination. When we started 20 the six-month period we were underproducing and 21 conserving allowables. We were coming out of a winter 22 period. Some of our good marginal wells, nonmarginal 23 wells were overproduced so we brought those back into 24 balance. 25 Towards the tailend of this summer, started

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in about June, we no longer had control of managing 1 2 underproduction. Pipeline constraints as well as work 3 on a couple of the plant turnarounds in the area, 4 turnarounds on one of the main line pressure stations, 5 plant work in the El Paso system. And now daily 6 restriction has forced us to underproduce a lot more than we wanted to. As result we now have a large 7 amount of underproduction. 8

9 Q Well, is it your testimony then that you 10 have had an unusual set of circumstances these last 11 six months that did not reflect the ability of the 12 wells in that field to produce their allowable?

13 A That is correct. And I think it became 14 more of an issue around June, and has continued to 15 date, and I'm sure it will continue through September. 16 And then I think this next six-month period will be 17 very much unpredictable.

18 Q Unpredictable in terms of pipeline 19 restraint, pipeline maintenance?

A That's correct.

20

21 Q Is price a factor?

A I don't see a factor in our shop. As far as ability to market the gas, to finally find a buyer, and in our shop to sell at these low prices, that's not an issue. We would be selling over -- we would be

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1 overproducing during this next six-month stretch with 2 just those factors, but we can't get it through the pipeline. 3 4 0 You said that was not an issue? 5 Α The marketing of it is not an issue. The low price is not an issue as far as our wanting to 6 7 produce the gas. Of course we would like to have the price hike too. 8 9 CHAIRMAN LEMAY: Thank you. Additional 10 questions of the witness? 11 (No response.) 12 CHAIRMAN LEMAY: If not, he may be excused. 13 Gas Company of New Mexico? 14 MS. SMITH: We'll not be presenting any 15 testimony this morning. 16 CHAIRMAN LEMAY: Mr. Nitcher? 17 MR. NITCHER: Mr. Chairman, I may have overlooked having Mr. Hawkins' exhibits moved into the 18 19 records. 20 CHAIRMAN LEMAY: Mr. Hawkins' exhibits will 21 be admitted into the record without objection. 22 CHAIRMAN LEMAY: Before we close, are there 23 any statements? I'd like to at this time to recognize 24 Mr. Stovall. 25 MR. STOVALL: Thank you, Mr. Chairman. I'd

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like right now to express our appreciation of Mr. Jim
 Morrow. Dick Lyons, and many people came in here and
 helped design this system and make it respond to the
 new conditions. Then he turned around and left and we
 hired Mr. Morrow to come in and make Mr. Lyons' system
 work.

7 Jim's been with us a little over a year. 8 He took this from scratch, implemented the system, got 9 caught between computer binds. He had an old system 10 that wasn't quite ready for it, a new system that 11 wasn't quite developed. So he has made it work, I'd 12 like to express my personal appreciation and ask the 13 Commission to formally express its appreciation and 14 thanks for his work, and unfortunately he's leaving us 15 in a short time. So he won't be here doing it again. 16 CHAIRMAN LEMAY: Did you say fortunately or unfortunately? 17 18 MR. STOVALL: I said unfortunately. 19 (Laughter.) 20 CHAIRMAN LEMAY: I'd like to second Mr. 21 Stovall's praise of Mr. Morrow's work, and I don't 22 think it's inappropriate to give him a round of 23 applause. 24 (Applause.) CHAIRMAN LEMAY: Anything else in this 25

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1	case?	If not,	we'll	take	this	under	advisemen	t. We	
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1 STATE OF NEW MEXICO) 2 COUNTY OF SANTA FE)

I, PATRICK M. MALONE, RPR-CP-CSR, and Notary Public, DO HEREBY CERTIFY that I did report in Stenographic shorthand the questions and answers set forth herein, and the foregoing is a true and correct transcription of the proceeding had upon the taking of this hearing.

9 I FURTHER CERTIFY that I am neither employed 10 by nor related to any of the parties or attorneys in 11 this case, and that I have no interest whatsoever in the 12 final disposition of this case in any Court.

I3 I FURTHER CERTIFY that I have retained the original copy of this deposition to seal and deliver to The Oil Conservation Division.

WITNESS MY HAND AND SEAL

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Court Reporter & Notary Public Certificate No. 412

My Commission expires 2/1/93

this 28th day of September, 1991.

LANPHERE REPORTING SERVICE, LTD.

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE , NEW MEXICO

Hearing Date_

NOVEMBER 14, 1991 Time: 9:00 A.M.

NAME BETTY DIETER KEVIN O'CONNEll MIKE GREGOR! VICTOR T. LYON Roser M. Ross

REPRESENTING	LOCATION
HALLWOOD PETROLEUM	DENVER
HAllwood Petroteum	Denver
HALL WOOD PETROLFUM	DENJER
Sampbell, Jan, Bug + Shendlen	South Fe
GAS CO /NM	Sonta Fe
AMERADA HESS CORP.	TULSA, OLC.
918-599-4201 PCASIZ 10398	

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE , NEW MEXICO

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Hearing Date NOVEMBER 14, 1991 Time: 9:00 A.M.

NAME	REPRESENTING	LOCA	TION

Dockets Nos. 34-91 and 35-91 are tentatively set for November 21, 1991 and December 5, 1991. Applications for hearing must be filed at least 23 days in advance of hearing date.

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 7, 1991

8:15 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before David R. Catanach, Examiner or Michael E. Stogner, Alternate Examiner:

CASE 10395: (Continued from October 31, 1991, Examiner Hearing.)

Application of Hal J. Rasmussen Operating, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water into the Jalmat Pool in the perforated interval from approximately 3260 feet to 3269 feet in its Mobil State Well No. 1 located 660 feet from the South line and 1980 feet from the East line (Unit O) of Section 16, Township 23 South, Range 36 East. Said location is approximately 13.5 miles north-northwest of Jal, New Mexico.

- CASE 10409: Application of Stevens Operating Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 2766 feet to 3130 feet and in the open hole interval from approximately 3205 feet to 3300 feet in the McClellan Oil Corporation, McClellan Federal Well No. 1, located 660 feet from the South and East lines (Unit P), Section 27, Township 13 South, Range 29 East. Said location is approximately 18.3 miles east by north of Hagerman, New Mexico.
- CASE 10399: (Continued from October 17, 1991, Examiner Hearing.)

Application of Meridian Oil, Inc. for a high angle/horizontal directional drilling pilot project, special operating rules therefor, non-standard oil proration unit, special project allowable and increase in gas-oil ratio, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks to initiate a high angle/horizontal directional drilling pilot project in the Rio Puerco-Mancos Oil Pool by commencing its San Isidro Wash Well No. 1 at a standard surface oil well location tentatively selected in the NW/4 (Unit D) of Section 21, Township 20 North, Range 3 West, drill vertically to a depth of approximately 3,000 feet, kick-off in a southeasterly direction, build angle up to approximately 80 degrees and then drill horizontally for approximately 4,000 feet. Applicant, further seeks the adoption of special operating provisions and rules within the pilot project area including a special project allowable of up to 640 BOPD with a GOR of 1,000 to 1, and an unorthodox well location exception. Applicant further seeks the flexibility to dedicate the N/2 of said Section 21 to the well as a standard 320-acre spacing unit or, in the alternative, the approval of all of Section 21 as a 640-acre non-standard spacing unit. Applicant proposes to keep the horizontal displacement of said well's producing interval within the allowed 660 foot setback from the outer sides of the assigned spacing unit. Said unit is located approximately 12 miles west-southwest of Cuba, New Mexico.

CASE 10391: (Continued from October 31, 1991, Examiner Hearing.)

Application of Bird Creek Resources, Inc. for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Bone Spring formation or 8300 feet, whichever is deeper, underlying the N/2 NE/4 of Section 21, Township 23 South, Range 28 East, forming a standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre oil spacing within said vertical extent, which presently includes only the Undesignated South Culebra Bluff-Bone Spring Pool. Said unit is to be dedicated to its Barkham Well No. 3 to be drilled at a standard oil well location in the NE/4 NE/4 (Unit A) of said Section 21. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 0.5 miles northeast of Loving, New Mexico.

CASE 10410: Application of Mewbourne Oil Company for compulsory pooling and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the base of the Abo formation to the base of the Morrow formation underlying the following described area in Section 16, Township 18 South, Range 27 East, and in the following manner: the W/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre gas spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated Scoggin Draw-Atoka Gas Pool, Undesignated Red Lake-Atoka-Morrow Gas Pool, Scoggin Draw-Morrow Gas Pool, and Undesignated Red Lake-Pennsylvanian Gas Pool; the SW/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; and, the SE/4 SW/4 forming a standard 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent. Said units are to be dedicated to a single well to be drilled at an unorthodox gas well location 990 feet from the South line and 1980 feet from the West line (Unit N) of said Section 16. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said area is located approximately 6 miles south of Riverside, New Mexico.

Application of Pantera Energy Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled CASE 10411: cause, seeks an order pooling all mineral interests from the surface to the base of the Morrow formation underlying the following described area in Section 22, Township 18 South, Range 28 East, and in the following manner: the S.2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre gas spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated Palmillo Draw-Atoka Gas Pool and Undesignated North Turkey Track-Morrow Gas Pool; the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; the S/2 SE/4 forming an 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre oil spacing within said vertical extent; which presently includes only the Travis-Upper Pennsylvanian Pool; and, the SW/4 SE/4 forming a 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent. which presently includes but is not necessarily limited to the Undesignated Artesia Queen-Grayburg-San Andres Pool. Said units are to be dedicated to a single well to be drilled at a standard location 660 feet from the South line and 1980 feet from the East line (Unit O) of said Section 22. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said area is located approximately 12 miles southwest by west of Loco Hills, New Mexico.

CASE 10386: (Reopened and continued from October 31, 1991, Examiner Hearing.)

Application of McKay Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Undesignated South Dagger Draw-Upper Pennsylvanian Associated Pool underlying the N/2 of Section 25, Township 20 South, Range 24 East, forming a standard 320-acre oil or gas spacing and proration unit for said pool. Said unit is to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 8 miles west-southwest of Seven Rivers, New Mexico. This matter is being reopened at this time to consider additional testimony regarding an assignment of overriding royalty interest within the subject area.

CASE 10363: (Reopened and continued from October 31, 1991, Examiner Hearing.)

Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Undesignated South Dagger Draw-Upper Pennsylvanian Associated Pool underlying the W/2 of Section 25, Township 20 South, Range 24 East, forming a standard 320-acre gas spacing and proration unit for said pool. Said unit is to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 8 miles west-southwest of Seven Rivers, New Mexico. This matter is being reopened at this time to consider additional testimony regarding an assignment of overriding royalty interest within the subject area.

DOCKET: COMMISSION HEARING - THURSDAY - NOVEMBER 14, 1991

9:00 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

(The Land Commissioner's designee for this hearing will be Jami Bailey)

CASE 10398: (Readvertised)

In the matter of the hearing called by the Oil Conservation Division on its own motion to amend Rules 403 and 1110 of the General Rules and Regulations of the New Mexico Oil Conservation Division by adopting alternate methods for measuring and reporting gas production from low capacity wells.

CASE 10377: (Reopened)

In the matter of the hearing called by the Oil Conservation Commission for the purpose of considering gas allowables for the prorated gas pools in New Mexico for October, 1991 through March, 1992. This case will be reopened solely to consider the application for rehearing filed by Hallwood Petroleum Inc. regarding the allowable established for the Catclaw Draw Morrow Gas Pool in Eddy County.

<u>CASE 10345</u>: (De Novo)

Application of BHP Petroleum (Americas) Inc. for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Basin-Fruitland Coal Gas Pool underlying the W/2 of Section 23, Township 29 North, Range 13 West, forming a standard 320-acre gas spacing and proration unit for said pool. Said unit is to be dedicated to its existing Gallegos Canyon Unit Well No. 390 located at a previously approved unorthodox coal gas well location 245 feet from the South line and 1530 feet from the West line (Unit N) of said Section 23. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located at the southeast edge of Farmington, New Mexico. Upon application of Louise Locke d/b/a Locke-Taylor Drilling Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

<u>CASE 10346</u>: (De Novo)

Application of BHP Petroleum (Americas) Inc. for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Basin-Fruitland Coal Gas Pool underlying the E/2 of Section 23, Township 29 North, Range 13 West, forming a standard 320-acre gas spacing and proration unit for said pool. Said unit is to be dedicated to its existing Gallegos Canyon Unit Well No. 391 drilled at a standard location 975 feet from the North line and 870 feet from the East line (Unit A) of said Section 23. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located at the southeast edge of Farmington, New Mexico. Upon application of Louise Locke d/b/a Locke-Taylor Drilling Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

NEW MEXICO OIL CONSERVATION COMMISSION 1 2 STATE LAND OFFICE BUILDING STATE OF NEW MEXICO 3 CASE NO. 10377 4 5 IN THE MATTER OF: 6 7 The hearing called by the Oil Conservation Commission for the purpose of considering gas 8 allowables for the prorated gas 9 pools in New Mexico for October, 1991, through March, 1992. 10 11 12 13 **BEFORE**: WILLIAM J. LEMAY, CHAIRMAN 14 WILLIAM WEISS, COMMISSIONER 15 JAMI BAILEY, COMMISSIONER 16 State Land Office Building 17 Morgan Hall 18 Thursday, November 14, 1991 19 **REPORTED BY:** 20 DEBBIE VESTAL 21 Certified Shorthand Reporter 22 for the State of New Mexico 23 24 25 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 FOR THE APPLICANT: KELLAHIN, KELLAHIN & AUBREY Post Office Box 2265 Santa Fe, New Mexico 87504-2265 BY: W. THOMAS KELLAHIN, ESQ.

INDEX Page Number Appearances WITNESSES FOR THE APPLICANT: KEVIN O'CONNELL 1. Examination by Mr. Kellahin Examination by Comm. Weiss Examination by Comm. Bailey Examination by Chair. LeMay Examination by Mr. Stovall Further Ex. by Chair. LeMay Further Ex. by Mr. Stovall Further Ex. by Chair. LeMay Certificate of Reporter EXHIBITS Exhibit No. 1 Exhibit No. 2 Exhibit No. 3 Exhibit No. 4 Exhibit No. 5 Exhibit No. 6 Exhibit No. 7 Exhibit No. 8

CHAIRMAN LeMAY: Now, we'll back up to 1 2 Case 10377 and call for appearances in Case 3 10377. May it please the MR. KELLAHIN: 4 Commission, I'm Tom Kellahin of the Santa Fe law 5 firm of Kellahin, Kellahin & Aubrey, appearing on 6 behalf of Hallwood Petroleum, Inc. 7 CHAIRMAN LeMAY: How many witnesses do 8 you have, counselor? 9 MR. KELLAHIN: I intend to only call 10 Mr. Kevin O'Connell. He's our petroleum engineer 11 12 that testified before the Commission at the There are also 13 original Commission hearing. 14 additional individuals in the hearing room that are available if you desire to ask questions. 15 16 I have Mike Gregory with me today. Mr. Gregory also testified at the Commission 17 hearing. He's a gas marketing individual for our 18 19 company and originally testified on market demand. 20 21 Mr. Vic Lyon is available. He is 22 representing Gas Company of New Mexico, but I 23 would certainly invite you to draw upon his expertise when it comes to prorationing, and 24 25 perhaps he may have comments in regards to this

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1 particular case.

1	particular case.
2	In addition, I would like to introduce
3	to you Ms. Betty Dieter. Ms. Dieter is the
4	Western District Manager for Hallwood Petroleum.
5	And, Ms. Dieter, would you stand up, please.
6	CHAIRMAN LEMAY: Welcome to New
7	Mexico. Thank you.
8	MR. KELLAHIN: My primary presentation,
9	though, is through Mr. O'Connell, and he will
10	talk to you and describe to you the specifics of
11	his concerns about the allowables that were set
12	for the winter proration period.
13	CHAIRMAN LEMAY: Thank you, Mr.
14	Kellahin.
15	Additional appearances in Case 10377?
16	MR. STOVALL: Mr. Chairman, I would
17	
	enter an appearance, Robert G. Stovall, on behalf
18	enter an appearance, Robert G. Stovall, on behalf of the Division. This is kind of an unusual
18 19	
	of the Division. This is kind of an unusual
19	of the Division. This is kind of an unusual proceeding, so I guess I am going to recommend a
19 20	of the Division. This is kind of an unusual proceeding, so I guess I am going to recommend a procedure, the nature of the case being that of a
19 20 21	of the Division. This is kind of an unusual proceeding, so I guess I am going to recommend a procedure, the nature of the case being that of a rule-making.
19 20 21 22	of the Division. This is kind of an unusual proceeding, so I guess I am going to recommend a procedure, the nature of the case being that of a rule-making. The case involves 17 prorated gas pools
19 20 21 22 23	of the Division. This is kind of an unusual proceeding, so I guess I am going to recommend a procedure, the nature of the case being that of a rule-making. The case involves 17 prorated gas pools in the State of New Mexico. The Division

the state; therefore, I'm going to ask that the 1 2 record from the previous Commission hearing on this matter be incorporated into this. 3 I think because it is a rehearing, I 4 don't think there's any problem with that. 5 Ι think it is part of the record. 6 7 CHAIRMAN LEMAY: Any objection to that? 8 9 MR. KELLAHIN: We concur with Mr. Stovall. 10 MR. STOVALL: I don't intend to present 11 12 anything additional today. The Division would 13 stand on the presentation by Mr. Morrow and the record made in the original hearing in this case. 14 15 CHAIRMAN LeMAY: Okay. Additional 16 appearances in this case? If not, you may proceed, Mr. Kellahin. 17 We need to swear in the witnesses. 18 19 Just in case -- do you want to swear them all in 20 in case they do give testimony? 21 MR. STOVALL: Because I've entered an appearance, Mr. Chairman, I would ask that you do 22 23 the swearing. 24 CHAIRMAN LEMAY: Would you all stand and be sworn in case we do call you. I think 25

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that's probably the easiest, even though I 1 2 understand Mr. O'Connell will be chief witness. 3 (The witnesses were duly sworn.) CHAIRMAN LeMAY: You may be seated. 4 5 Thank you. MR. KELLAHIN: May it please the 6 Commission, let me give you some preliminary 7 comments from my own perspective and then 8 indicate to you our suggestions on the 9 presentation of this particular matter to the 10 Commission for consideration. 11 Let me tell you, first of all, what I 12 have distributed to you. The first item on top 13 is another copy of the application for 14 rehearing. Attached to the application that I 15 16 have prepared behind the first blue tab is a copy of the proration order that was entered by the 17 Commission on October 3. 18 You'll find a yellow tab partway 19 through that order. It will be on page 3. And 20 it is that page that sets forth the specific 21 22 findings that dealt with the Catclaw Draw. There are two principal findings, No. 9 and 10. We'll 23 have Mr. O'Connell specifically discuss those, 24 but for your reference, that is the content of 25

7

1 the Commission order.

In addition, I have given you another copy of the Hallwood exhibits that were presented at the Commission hearing of the allowable case, which took place back on August 29. You'll find that behind the next blue tab. There's another yellow tab marker.

8 I've selected one of Mr. O'Connell's 9 spreadsheets in which he substitutes in his 10 recommendation for the numbers or volumes that 11 correspond to what Mr. Morrow used on his 12 spreadsheet, and we'll be talking about that 13 exhibit again to refresh your recollections.

And finally, the last attachment to the application for rehearing is a letter from Gas Company that demonstrates the market demand problem that's created by the allowables established by the Commission in the first order.

The simple matter is that the allowables established did not accurately reflect market demand for production out of the Catclaw Draw. The reduced allowables that were established by the Commission is going to cause Gas Company to take gas that otherwise would come

from Catclaw Draw and supply that market with gas
 from somewhere else.

The next document we provided is a copy of the pool so that you can get a perspective on the size and configuration of the pool itself.

While this case is extremely important 6 to Hallwood, it does represent a compact example 7 of prorationing in southeastern New Mexico 8 because it's a very small pool. We only have 19 9 wells or proration units, if you will. Of the 19 10 proration units, only two of those are 11 12 nonmarginal. I think it represents a manageable quick look at the mechanics of prorationing. 13

And Mr. O'Connell and I will discuss with you shortly some of the things that we think require adjustment in this particular pool in order that allowables may truly reflect market demand.

When you look at this display, Mr. O'Connell will identify for you the bigger producing wells. Of particular importance is the No. 9 Well down in Section 35. It is the well that demonstrates the best capacity to produce, as currently classified as a nonmarginal well. For your information and by way of

1 comparison then of the spreadsheets, there are a
2 series of additional documents that we've marked
3 as exhibits. The first one is going to be marked
4 as Exhibit No. 2 for the rehearing. And it
5 represents the summer proration schedule for the
6 pool. This is the April through September 1991
7 schedule.

And that would be our starting point 8 then for looking at the next display, which is 9 10 Exhibit No. 3. And that represents Mr. Morrow's preliminary allowable estimates. This is the 11 12 spreadsheet he brought to the last hearing in August and discussed with the Commission. 13 We've shown that portion that looks at the Catclaw Draw 14 15 Morrow. You can see the numbers that he has 16 utilized in his spreadsheet. Again, Mr. 17 O'Connell will comment specifically about those numbers, contrast them to his numbers and 18 19 recommendations.

The next spreadsheet is a duplication of the spreadsheet for the allowables in the order itself. You can find, again by looking at Catclaw Draw, the adjustments that were made by the Commission order when that order was entered.

And then, for completeness, the next 1 2 one marked is Exhibit 5 -- is actually what was printed in the allowable schedule for October 3 through March of 1992. Again, Mr. O'Connell will 4 comment about some of the problems that he's 5 experiencing with that particular spreadsheet. 6 The next exhibit you'll find is a 7 package of documents that Mr. O'Connell has 8 9 prepared and which I have marked collectively as Exhibit No. 6. He and I will go through this, 10 and he can describe orally the particular points 11 12 and conclusions he wishes to make. For your use 13 he has written or summarized in a narrative form the presentation that he will make to you 14 15 orally. 16 Then, to complete the record, we have marked for introduction the Gas Company letter of 17 18 October 15, which demonstrates that we do have a market demand for additional gas from the pool 19 that the current allowables set for this winter 20 21 period do not let us satisfy. 22 And then finally, I think perhaps the most useful of the exhibits, is what we have 23 marked as Exhibit No. 8. It is Mr. O'Connell's 24 summary in which he specifically identifies 25

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1 exactly what he thinks is wrong with the Commission order, where he thinks the differences 2 are. He's attempted to quantify those. 3 And he and I will spend some time on 4 this Exhibit No. 8 so you'll have at least a 5 clear understanding of his position concerning 6 the areas of difference between the Commission 7 order and what Hallwood seeks to accomplish in 8 9 this rehearing. We do appreciate the opportunity the 10 Commission has given us to have another 11 opportunity in presenting to you the Catclaw Draw 12 questions. It is our belief that the allowables 13 should be established based upon market demand. 14 I think we have a market demand that is not being 15 satisfied by the current allowables, and we 16 17 desire an adjustment. With those preliminary comments, if I 18 may, please, I would introduce Mr. O'Connell at 19 20 this time. 21 EXAMINATION 22 BY MR. KELLAHIN: For the record, Mr. O'Connell, would 23 Q. 24 you, please, state your name and occupation. 25 My name is Kevin O'Connell. I'm the Α.

1 Western District Drilling and Production Supervisor for Hallwood Petroleum. 2 Did you testify in that capacity on ο. 3 behalf of your company at the Commission hearing 4 in August concerning allowables for the Catclaw 5 Draw Morrow Gas Pool? 6 Α. Yes, sir. 7 Were your qualifications as an expert 8 Q. witness with regards to prorationing matters for 9 10 this pool accepted at that time? Α. Yes, sir. 11 12 Ο. Subsequent to your previous testimony, have you continued to study the Catclaw Draw 13 14 production and to look at the allowables assigned by the Commission for that pool? 15 16 Α. Yes, sir. MR. KELLAHIN: We tender Mr. O'Connell 17 18 as an expert petroleum engineer. 19 CHAIRMAN LEMAY: His qualifications are 20 acceptable. Mr. O'Connell, let me draw your 21 ο. 22 attention to Exhibit No. 1, which is the plat of 23 the pool. And to give us some background on what has happened in the pool, let's start off and 24 have you identify what are the current 25

13

1 nonmarginal wells in that pool.

Α. The current nonmarginal units, there's 2 3 two of them that technically exist right now, are the No. 9, which consists of Section 35, and then 4 just north of it, the Catclaw Draw 13, and 5 Catclaw Draw No. 1Y in Section 26. 6 7 Ο. When we're looking at the boundary of the pool, how is that identified? 8 Α. It's the hashed -- no. The field 9 boundary is the solid, I believe it's a 10 11 brown-colored line, that outlines the pool. The hashed line is Hallwood's acreage position within 12 13 the pool. I believe Commissioner Weiss asked at 14 Ο. the prior Commission hearing what was the 15 16 consolidation of the acreage in terms of potential units in this area. Would you describe 17 18 that ownership arrangement for us briefly? In the unit? 19 Α. 20 Yes, sir. Q. 21 The Catclaw Draw unit that we have, Α. 22 it's a unitized royalty interest. All royalty interests are common within the unit. 23 And the unit is identified with the 24 ο. 25 hashed line?

Yes, with one exception. Wells No. 16 1 Α. and 17 to the far north are not in the unit. 2 They're in the Catclaw Draw field, but they're 3 not -- their royalty interest is not unitized. 4 How do the working interests share in 5 Ο. production from the pool? 6 Α. They do and can vary some between the 7 wells, but they're -- the majority of the wells 8 9 are guite similar, within two, three, four percentage points difference. Basically they 10 11 have the same owners throughout the entire field 12 with just slight variations in working interest 13 ownership. 14 In examining the deliverability for the Ο. pool, can you summarize for us what in your 15 16 opinion is the total pool deliverability of the Catclaw Draw Morrow Pool? 17 18 Α. Monthly basis? 19 Q. Yes, sir. Well, it's around 400- to 425,000 Mcf 20 Α. 21 per month. Let me take some of the exhibits out of 22 Ο. order and direct your attention to Exhibit No. 8, 23 24 which is your notations on the pool. Yes, sir. 25 Α.

And the first question you've asked 1 Q. yourself is what is the total pool of the field 2 deliverability? Describe for us how you went 3 about coming to that conclusion. 4 Well, basically, it's -- you know, 5 Α. under the current proration system, marginal 6 wells are allowed to produce at capacity, in 7 other words, unrestricted. So, therefore, the 8 9 total pool delivery is simply the sum of the marginal wells' production, plus the sum of the 10 11 nonmarginal units' production. 12 All right. When you look at the Q. exhibit and look at total marginal production, 13 where do those numbers come from? 14 Those are numbers that we project, the 15 Α. marginal well productional fee for the pool over 16 the next six-month -- or the current six-month 17 period we're in. And that will be around 203,000 18 19 to roughly 226,000 Mcf per month. What do you look at to get that 20 Ο. 21 information? Just the sum of all the marginal wells' 22 Α. 23 production. 24 Q. In addition to that, then -- well, why 25 would that represent -- why would the marginal

well production represent the deliverability of 1 those wells? 2 Α. Because they're allowed to produce at 3 total capacity. 4 When you look at the -- I guess there's Ο. 5 17 of the marginal wells? 6 Α. Yes. 7 When you --8 ο. There are 16, I believe. 9 Α. 10 Sixteen. There are two currently Q. 11 classified nonmarginal units? Α. Yes. 12 Describe for us how you've estimated 13 Q. the deliverability of those proration units for 14 this winter proration period. 15 16 Α. Well, we've just looked at the -- what those wells could deliver, reasonable capacity of 17 the wells. And the 1Y and the 13, they can 18 deliver about 1,400,000 a day, which is about 19 42,560 a month. And the Catclaw Draw No. 9, it 20 can sustain easily about 5,000,000 day, which on 21 a monthly basis is 152,000. So the sum of those 22 numbers, coupled with the marginal production, is 23 the range I've given of just under 400,000 to 24 25 421,000 Mcf.

Q. When you look at the 1Y Well and the 13 Well in Section 26 and then the No. 9 Well in 35, do you see any opportunity for the impact on the correlative rights of any of the owners of the offsetting sections if additional allowable is assigned to those nonmarginal wells?

Α. No, because the Section 26 is 7 developed, fully developed, with two wells in 8 And that's all you can have in that section, 9 it. or that's the maximum. Section 35 only has one 10 There is a possibility for another well in 11 well. 12 the extreme south. But given the information we have, that would be risky to drill another well 13 there right now because it would strictly have to 14 be on the merits of increased gas recovery or 15 16 additional reserves.

And the other thing that's unique -- is 17 the best word is to describe the situation that 18 we have on the No. 9 -- is that Section 35 is 19 surrounded on five sides, five sections, by 20 21 Morrow dry holes. There is no commercial Morrow 22 wells in those sections to the south, so -- and 23 the field has been fully delineated. You have a nose that extends there that rapidly falls off on 24 25 the east and west and the south, and they're

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unable to establish any commercial production. 1 Let's turn to the sequence of 2 Ο. spreadsheets that were prepared for eventually 3 determining the allowable for the Catclaw Draw. 4 Let me take you back to Exhibit No. 2, which is 5 the April through September 91 summer proration 6 And give us a guick reading of the 7 schedule. status of the allowables for the pool as you 8 begin to analyze what then should be the 9 10 allowables for the winter period. 11 Do you have a copy of Exhibit No. 2? 12 Α. Yes. Could you restate question? 13 Ο. Sure. When we look at that sheet, 14 we're dealing with a display that shows the marginal and nonmarginal wells? 15 Yes. 16 Α. 17 Q. What is the total nonmarginal pool 18 allowable that's available for the nonmarginal 19 wells in the summer proration period? 20 That was 22,117 Mcf. It's over there Α. 21 in the -- about halfway down on the farthest 22 right column. And that you can see was assigned the two units, Catclaw Draw 2 and 14, and also 23 the 1Y and 13. Since then, the 2 and 14 has met 24 25 the requirements to be reclassified as a marginal

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And the 9, No. 9, which is on there as a 1 unit. 2 marginal, should be reclassified as a 3 nonmarginal. So those two basically should have 4 swapped their marginal and nonmarginal statuses 5 on the current proration schedule. 6 As we move up to the August 1991 7 Q. hearing, describe for us what has happened 8 between the adoption of the summer proration 9 schedule and the beginning of the process to 10 adopt the winter proration schedule in terms of 11 additional deliverability added to the pool. 12 13 Well, basically, we went into a fairly Α. extensive workover program this summer, started 14 in May, and we worked over four wells and had 15 16 excellent results on three wells. And basically have added pretty close to 8,000,000 a day of 17 additional deliverability from the three 18 successful workovers, and that being -- the wells 19 20 being Catclaw No. 9, Catclaw No. 16, and Catclaw 21 No. 17. 22 Let's go now to Exhibit No. 3, which is Q. 23 the Division's preliminary allowable estimates 24 that they circulated to the industry in August, I 25 believe?

1 Α. Yes. Do you have a copy of that? 2 Q. Yes, sir. Α. 3 Perhaps now is a useful time to take Q. 4 that preliminary estimate and turn back to the 5 presentation you made at the Commission in which 6 you summarized what you thought the allowable 7 determination ought to be for the pool when you 8 9 utilized two nonmarginal wells. 10 Α. Yes. And that will represent in the 11 Q. rehearing application the second yellow tab. Do 12 you have a copy of that, Mr. O'Connell? 13 Yes. That was this one? Yes. 14 Α. It should be captioned, "Catclaw Draw 15 Q. Morrow Field, Allowable Determination," says, 16 "With Two Nonmarginal Proration Units." 17 The first entry under line 1, "Average Monthly Pool," 18 is going to 189,546 Mcf a month? 19 20 Α. Yes. All right. We're all looking at that 21 Ο. Let's take that spreadsheet that you 22 same thing. 23 prepared and have you make a direct comparison then to what the Division used for each of those 24 lines under the column that shows Catclaw Draw 25

1 starting with the first entry.

A. Okay. When we received the early August preliminary nomination, which you've shown as Exhibit 3, that's when we knew, based on the results we were having, that we had to get fairly actively involved in this because -- or else we were going to have a significant amount of our gas curtailed this winter.

9 And going through on the lines, 136,500 for average pool sales, where we show a higher 10 number, pushing 190,000, I think that's just due 11 to some data we previously talked about, whether 12 it comes from C-111's or C-115's, and there's a 13 14 discrepancy there that accounts for some error. 15 What's your recollection for how Mr. Q. Morrow was deriving the sales numbers used for 16 Catclaw Draw when he prepared his spreadsheet? 17 I believe it was from C-111's. Α. 18 He was taking them off the transporter 19 Ο. 20 report?

A. Transporter report, yeah, and not the
operator report. There's quite an opportunity
for error and discrepancies there.

Q. When we look at the 189,000,
approximately, how did you obtain that number?

Α. That's just from going back through our 1 2 wells and the other wells and just adding up what they've been producing during that October 90 з 4 through March 91 period. Okay. Now, let's turn to Exhibit No. 5 **Q**. 4, which is the spreadsheet for this pool that 6 was adopted by the Commission and attached to the 7 Commission order as Exhibit A. What happened 8 9 when the Commission order was entered? Well, they used -- increased that 10 Α. slightly to 146,818, so about a 10,000 Mcf 11 increase but still --12 In your opinion, is the 146,818 an 13 Q. 14 accurate reflection of sales on a monthly basis for production from the pool? 15 No. I think for the period they looked 16 Α. 17 at it, it's still a little bit low. Some data 18 was missing. 19 What number would you recommend be put ο. 20 in the spreadsheet at that point? I think the -- our number, 189,000, is 21 Α. more reasonable. I think what it is, is we've 22 got, as operator and as operator of the majority 23 of the wells, we have quicker access to the 24 data. And sometimes the data doesn't, either 25

1 through the different forms submitted, transporters or whatever, it doesn't get all the 2 way into the system here. 3 Perhaps the next line to examine in 4 Q. Exhibit No. 3 is to skip down to the monthly 5 marginal pool allowable, which would be line 5, 6 and go across to the Catclaw Draw. What number 7 do you find in Mr. Morrow's spreadsheet for the 8 9 preliminary estimate on Exhibit No. 3? 92,289. 10 Α. When we look at your exhibit from the 11 Ο. Commission hearing, what was your calculation of 12 13 the average monthly marginal pool allowable under line 5? 14 203,182. Α. So over twice as big. 15 Can you explain for us why there is 16 Q. such a substantial difference between the two 17 numbers? 18 Well, primarily, it's from the work 19 Α. that we have done or the new work that was coming 20 21 on-line in May, June, and July that Jim didn't 22 have access to that info other than through our nomination number. And also there was going to 23 24 be, you know, a well shifting from nonmarginal to marginal. And, you know, there's some 25

1 substantial volumes that were suddenly, because 2 of the big changes in the field, going to be -would fall under the classification as marginal 3 4 well production. When we look now at Exhibit No. 5, 5 Ο. which is the Commission order after hearing, what 6 was used by the Commission in line 5 for the 7 monthly marginal pool allowable? 8 9 Α. It was the same, essentially 92,288. So no adjustment was made based on the 10 Q. 11 data that you had presented? 12 Α. No. 13 Let's go back and compare then, and Ο. 14 I'll let you select the next line, to show the differences between Mr. Morrow's spreadsheet and 15 your recommendations at the prior hearing so that 16 we can ultimately understand, Mr. O'Connell, how 17 we got such a large difference in the actual 18 allowable being assigned to the two nonmarginal 19 20 proration units. Take us through the summary. 21 Α. On that Exhibit 8? Or just a 22 comparison of these? I think on the comparisons is easier. 23 Q. 24 Well, the main areas are the -- is the Α. 25 adjustments. We recommend an adjustment upwards

of 268,000 Mcf a month, and that was due to those 1 three wells coming on. 2 All right. Let's look at the 3 Q. adjustment line then on the preliminary 4 estimates, line 3. Preliminary estimate was 5 72,000 under Mr. Morrow's preliminary sheet? 6 Α. Preliminary adjustment? 7 No. Yes, sir. 8 Q. Α. 14,000. Next one over. 9 I'm sorry. I was looking at Carlsbad. 10 Q. 14,000? 11 12 Α. Yes. 13 Your presentation for an adjustment is Q. 268,736? 14 15 Α. Yes. And then the Commission order makes an 16 Q. adjustment for the pool of a little over 95,000? 17 Yes, sir. 18 Α. 19 Ο. Lead us through the other lines. Well, then, basically the adjustment 20 Α. is added to your average monthly sales, and then 21 22 you -- the summation of those is your monthly 23 pool allowable. And you can see where we're 24 starting to build our discrepancy. We were 40-some thousand off on the production and 25

1 170,000 off on the adjustments. So the end result is we have an 2 allowable that was ultimately assigned 242,288 3 versus what we felt was a more reasonable number 4 of 458,282, which is quite a discrepancy. 5 All right. Let's go back now to 6 Q. Exhibit No. 8 and talk about market demand. 7 We've got the Commission using a monthly pool 8 9 allowable of 242,000, and your recommendation was 10 458,000. Which of those two numbers more closely approximates the market demand for production 11 12 from the pool? 13 Α. Well, I think our number, and then 14 that's what I've tried to show under Item 2 on that Exhibit 8. You know, what is total pool for 15 16 field market demand? 17 Describe for us how you've analyzed **Q**. that issue. 18 19 Well, that's what the other operators, Α. 20 the other three operators, what they can sell 21 from their five wells, plus what Hallwood can 22 sell, which would be an excellent approximation of market demand. The thing you keep in mind, 23 24 the other operators, all their wells are marginal, and they average around 50,300 a 25

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So it's pretty safe to assume that 1 month. they're going to produce those at that rate or at 2 or near that rate throughout the winter period. 3 We can sell and, in fact, have 4 delivered as much as 12- or over 12 million a day 5 from the pool. We can deliver from 12- to 6 7 13,000,000 a day. And that on a monthly basis is 8 364,800 to 425,600. The total of those, that, 9 plus the other operators is, again, this 415,100 to 475,900. So a little under half a Bcf a month 10 for the pool. And that falls close to the range 11 12 above, which is pool deliverability. 13 So, essentially, what we're leading up 14 to is the pool deliverability is equal to -- is 15 at or equal to market demand for Catclaw Draw. And how does that compare to the 16 0. 17 October allowable assigned for the pool under the Commission order? 18 19 Α. Well, it's about -- our number is about 20 71 to 96 percent higher than the 242,288 that was 21 ultimately assigned. 22 Ο. Let me have you turn to page 2 of 23 Exhibit 8, and let's talk about how the market demand ought to be allocated back to the 24 25 individual proration units. Lead us through your

1 analysis.

2	A. Well, what I did here was just jumped
3	immediately down to line 4, which is monthly pool
4	allowable, because we're basically assuming the
5	pool can deliver what the capacity is. And that
6	number, 445,500, is simply where I averaged our
7	total range on the previous page, that 415- to
8	475-range. I averaged that for simplicity rather
9	than have three or four sets of numbers here.
10	Likewise, the monthly pool marginal, I
11	averaged that, and that's 214,673. Again, I'm
12	just following the formula whereby a monthly pool
13	allowable is established. You subtract off your
14	monthly pool marginals because they're allowed to
15	produce. They receive preferential production.
16	And that leaves you 230,827, which compares with
17	150,000.
18	As we've discussed, there's two
19	nonmarginal units, so that would get a monthly F1
20	of around 115 a little over 115,000.
21	Q. Compared to the Commission order of
22	75,000?
23	A. Yes, sir.
24	Q. Reducing that to an average daily rate
25	results in what number?

About 3.8 million. 1 Α. Let's turn now to the third page of 2 Q. Exhibit 8 and have you summarize for us your 3 analysis of how we got so far apart on the 4 numbers. 5 Well, that's what I was trying to Α. 6 simplify here. Just a little simple math 7 And we're vastly different. And 8 problem. 9 there's only two areas where we're different, and that's marginal well production and monthly pool 10 allowable. 11 Marginal well production, as I said, 12 13 214,000 versus, roughly, 92,000. And that difference is 122,385. And where that came from 14 is basically the marginal pool production number, 15 that 92,000, was based on past production 16 numbers, not the new production that we have, and 17 of which the Catclaw 16, a new recompletion, 18 Catclaw 17, a new recompletion. I found out the 19 Catclaw 6 production data was absent from the 20 last two schedules. And also the previously 21 22 mentioned shift of the 14 and the No. 2 to a non -- to a marginal, you add all those up and 23 24 there you're at 98 percent, or 120,000 of that 122,000. 25

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1 So that's where the major difference comes from. It's a combination of some missing 2 data, some new recompletion data, and the shift 3 of another well from nonmarginal to marginal. 4 And the same analogy basically falls through on 5 the monthly pool allowable. 6 We're 200,000 off, which if you take 7 the 16, 17, and 6 production off of there, you 8 9 wind up with an extra 100,860, which basically, you know, 75 percent of that could be assigned as 10 additional allowable to the No. 9 Well, via a 11 higher F1 factor. 12 13 Q. What's your recommendation to the 14 Commission, Mr. O'Connell? Well, I think, you know, the system we 15 Α. 16 previously came down here in August prior to the hearing and discussed this with members of the 17 OCD, and they requested good numbers, good 18 nomination numbers, to make the system work. 19 And that's what we were trying to provide, was good, 20 21 accurate representation of what we could produce 22 and sell. And that's -- we would like to see a 23 higher -- we would like to see some of the 24 numbers we provided utilized because I think we 25

proved we can produce that. And if we can't, 1 2 we'll adjust our nominations accordingly. In your opinion is there a market 3 Q. demand for that additional gas production that 4 the allowables don't currently allow you to 5 6 produce? Yes. We can sell the gas we can 7 Α. produce now at Catclaw Draw. 8 Let's look at Exhibit 5, which is the 9 Q. winter proration schedule that was published by 10 the Division. Do you have a copy of that? 11 12 Α. The winter proration? 13 Q. Yes. October through March of 92. 14 For the Catclaw Draw? Α. 15 Q. Yes, sir. Α. 16 Yes. 17 Q. Describe for us any of the particular 18 details of how this system is now in place for the winter proration period that causes you any 19 problems in managing your production from the 20 21 pool. 22 Α. Well, one of the obvious ones is 23 basically, at the front of the order, we have the results of the order, and it discusses our 24 situation. And the -- a lot of the changes that 25

we recommended didn't get into effect. 1 Most notably is the No. 9 Well is still classified as 2 a marginal well with an allowable 8700 Mcf a 3 month. 4 And, consequently, some of the other 5 changes that were recommended, both by Hallwood 6 and by Victor Lyon, as a consultant to the 7 Commission, did not take effect in the actual 8 9 published schedule. Specifically what items? 10 Q. Just like the shift from the 2 and the 11 Α. 12 14 to marginal, some of the acreage factors are 13 incorrect, and then the corresponding F1's that 14 would go with those. Let's focus now while I think it's 15 Q. convenient to look at the overproduction limit, 16 17 the OP limit. Yes, sir. 18 Α. It's the fourth column over from the 19 Q. 20 And on this schedule for the winter, it right. 21 says 222,000-plus. 22 Α. Yes. 23 How do you obtain that number? Q. 24 Α. That's six times the January F1 -- six 25 times the current year's January F1 factor.

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And that would have been January of 1 Q. 1991? 2 3 Α. Yes, sir. That is utilized to get your OP limit 4 Q. 5 for that nonmarginal well? 6 Α. Yes. Tell us what's happened and what effect 7 Q. that OP limit has on the production from that 8 well. 9 10 Α. On which? Any specific well? On any of them and how you calculate 11 Q. the OP limit now. 12 13 Well, basically, it's six times that Α. 14 January number. And you're technically not allowed to exceed that amount of overproduction. 15 16 If you do, you run the risk of having your well 17 curtailed or shut in until such overproduction is 18 made up. Does that OP limit for January of 1991 19 Q. 20 reflect the ability of that well to produce gas and sell gas on a monthly basis? 21 22 No. It's just six times the top Α. 23 allowables, so it's --24 What adjustment is going to be Q. 25 necessary in order to preclude that well from

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being shut in as a result of this OP limit? 1 Well, really, the OP limit should come Α. 2 up to correspond to six times that 75,000 F1 that 3 That would be my recommendation. was assigned. 4 The OP limit, it would -- should change with each 5 six-month period, because in this instance you 6 have a new F1 with an old OP. You have two 7 8 things that are distinctly different. The F1 factor at 75,000 would result in 9 Ο. an OP limit of what number? 10 450,000. It would be six times that 11 Α. amount, which it's our understanding that won't 12 13 take effect until the new proration year, which begins April 1, 1992. And this was from talking 14 with Commission people this week. 15 16 Well, I understand the Commission is Q. 17 trying to make this proration system, including the one for the Catclaw Draw, work as effectively 18 as possible. Do you have any suggestions or 19 20 recommendations for the Commission as to how to avoid having this OP limit being artificially set 21 22 too low based upon past data causing wells to be 23 shut in that would otherwise have a market for that gas? 24 Well, yes. I would recommend that the 25 Α.

OP limit change twice a year along with the new
 proration schedule.

Q. And, apparently, the way this is working now, the OP limit is only being set once a year?

And it's conceivable that you Yes. 6 A. could have an OP limit assigned in January of 7 1991 and be stuck with that OP limit for 8 9 literally 15 months until April 1 of the following year. So I think it could be more 10 11 timely to have that OP limit correspondingly change each of the two six-month periods we have 12 13 now because we're not on a monthly basis.

I've asked you, Mr. 14 All right. Q. 15 O'Connell, to review the Commission order, page 3, Findings 9 and 10, and to prepare a response 16 including your data, your conclusions, and your 17 comments concerning the specific findings. 18 That study that you have made is now presented to the 19 Commission as Exhibit No. 6. 20

And let me have you simply go through your analysis of the impact of the Commission order and give us an understanding of your conclusions and the basis for your reasons that support those conclusions.

1 Α. Okay. How did you approach answering the 2 Q. questions? What was the first thing you did? З Well, the first thing we had to do was Α. find out the current status of the No. 9 Well, 5 because that relates directly to part of it, how 6 the order was issued, and that will be discussed 7 on page 3. 8 9 But the current -- what we've done is since the recompletion, assumption No. 1 was 10 that -- and the way that the system works -- the 11 well was assigned a shadow allowable, which is 12 the top allowable for that field, during that 13 14 period. And it was assigned that shadow allowable until the new F1 or the new order went 15 into effect in October. And then, again, you see 16 the current OP limit, 222. 17 Going through on a monthly basis, it 18 shows the production, the volumes we've sold from 19 Third column is the allowable. the well. Fourth 20 21 column is the over- or under-status. And bear in 22 mind that the minus sign represents overproduction. And then the cumulative 23 24 overproduction status. So you can see right off that the No. 9 25

Well is currently -- or based on the current OP 1 limit, is overproduced, although we've reduced 2 the amount of overproduction in October because 3 we've cut our production down. 4 Now, the obvious question, or one that 5 I would anticipate, is why did we get the well 6 overproduced? Well, that's -- basically, when we 7 recompleted this well, we needed to determine if 8 9 this well would hold up to see if it had sustainable deliverability. 10 Look back at the Commission order. 11 ο. One of the specific findings in paragraph 10 presumes 12 that the producing capacity of this No. 9 Well 13 may be expected to decline over the next few 14 months. 15 And that's one thing we wanted to 16 Α. Yes. prove to ourself and to the Commission because --17 18 and I've seen many a Morrow well that have come on strong and a year later they were -- we were 19 getting ready to plug them. 20 21 Q. Does the No. 9 Well demonstrate that 22 early decline projection? 23 Α. No. And also from an internal aspect, we needed to obtain some good production data to 24 see if we could support the reserves we intended 25

to book on it to the SEC and that the well, quite 1 2 frankly, would not decline off rapidly. And so going on to page 3, I looked at 3 three portions or three statements of the order 4 that was issued in October. The first statement, 5 being an F1 of 75,000, which is 2.46 million a 6 day, together with the OP limit of 222,888 should 7 provide sufficient opportunity for operators to 8 9 produce their nonmarginal wells. And, basically, it appears to me that 10 11 this order was issued on a two-part basis whereby the intent was to allow this OP limit to act as a 12 method or vehicle to allow you to essentially 13 14 overproduce. If you take that 228 -- or excuse me, 15 222,888 and spread it out over a six-month 16 period, that gives you an additional 1.2 million 17 18 a day. So you could conceivably produce at 19 roughly 3.7 million a day. However, as we've shown on the previous page, we basically consumed 20 21 our OP status during the summer. And we don't 22 have that opportunity to overproduce via the OP 23 limit unless the OP limit was higher. And I went on to state, the higher F1 24 would not be excessive at this time. We do have 25

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the capacity to produce it. Our purchaser, Gas 1 2 Company of New Mexico, has expressed a definite desire and need to purchase it, the in-state 3 das. 4 As I've shown on the map, correlative 5 rights will be protected because the field has 6 been fully delineated and it's rimmed on three 7 sides by dry holes. 8 9 And also, back to our original application, we solicited and obtained letters of 10 11 support, not objections, by all the other offset operators in raising allowables. 12 Let's go to page 4 and look at your 13 Q. statement No. 2. 14 This is what you were alluding to Α. Yes. 15 a couple of minutes ago. The producing capacity 16 / 17 of the Well No. 9 may be expected to decline over the next few months. All indications to us from 18 producing data we have to date, flow rates and 19 pressures have shown little, if any, indication 20 of decline in the next few months. This well is 21 a very strong well. Substantial gas reserves. 22 23 And, really, it's a well thats longevity is measured in terms of years, not months. 24 On the following page, page 5, is a 25

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plot that we submitted in the August 29 hearing. 1 It's basically a flow rate versus tubing pressure 2 versus time. And this was the early time data 3 since we recompleted in May. And at the bottom 4 in blue there, you know, this well on the plot 5 6 looks like it was averaging 2500 a day at 2200 pounds to 2250. In fact, on June 21 an actual 7 8 point was 2546 Mcf at 2250. The well is currently at 2500 a day, 2100 pounds, which is 9 only a 6.6 percent pressure drop after producing 10 nearly 6/10 of a Bcf. 11 So we're pretty encouraged that this 12 well -- you know, we've only lost just a little 13 under 7 percent of pressure after producing 6/10 14 of a Bcf, so that's a good indication it's a 15 16 strong well. 17 And then I went on to make a statement 18 that I discussed a little bit earlier. You know, we're trying to work with the OCD because the 19 allowable system has not been working as they 20 21 wanted it to. We're providing good operator --22 providing nomination volumes to accurately allow 23 or assist the OCD in establishing allowables. And, guite frankly, you know, we've 24 25 recommended the F1 allowable be set at or near

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our original request, and then when the field 1 or the well's ability to produce declines, we 2 will adjust our nominations accordingly. That's 3 the -- you know, anything we do out here, it's 4 not a permanent or irreparable. It's only a 5 six-month occurrence. And next February and when 6 we prepare for the April -- or the summer 7 proration period, we can adjust accordingly, 8 either up or down as needed. 9 I direct your attention to your third 10 Ο. 11 statement concerning the findings of the order. The order reflects in a finding that the 12 allowables will be by definition, restrict 13 production from the highest -- from the highest 14 capability wells. In analyzing how the Division 15 16 and the Commission have handled prorationing in the other pools that are prorated, have you found 17 18 an example of where in fact the highest capacity 19 or capability wells are not restricted by the 20 allowable? Yes, sir. 21 Α. In your analysis do you find any basis 22 **Q**. for restricting the high capacity wells to less 23 24 than their capacity in this particular pool? No. 25 Α.

Do you see any indication of possible 1 Ο. adverse consequences of drainage or damage of 2 3 correlative rights of anyone in the Catclaw Draw? No, sir. Α. 4 Let's go to your analysis about the 5 Q. Indian Basin and how the proration system has 6 worked for Indian Basin and whether or not they 7 have been required to restrict the high capacity 8 wells in that pool. 9 Well, what I did, I literally just 10 Α. 11 happened on this one day in going through all these numbers and comparing things back to 12 Exhibit No. 4, which was the final field summary 13 of each of the different wells. If you drop all 14 the way down to line 8, which is the monthly 151 16 acreage factor, you see Catclaw Draw has that 75,000 number, which is our current F1. 17 I looked across there one day just two 18 rows over to the Indian Basin Morrow field, and 19 you have an F1 of 146,000 a day. And that's 20 21 assigned to one nonmarginal unit. In fact, it has an acreage factor of less than 1. 146,000 a 22 day is about a 4.8 million-a-day allowable -- or 23 24 excuse me, 146,000 a month is about a 4.8 million 25 a day allowable.

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So I looked into it a little further. 1 And we have an amazing similarity, really, 2 3 between Indian Basin Morrow and Catclaw Draw On page 6, I've summarized some of the Morrow. Δ similarities. Indian Basin Morrow is only about 5 ten to twelve miles west of Catclaw Draw. 6 There's eleven wells, five operators, and one 7 nonmarginal unit presently. Catclaw Draw has 8 nineteen wells, four operators, and two 9 10 nonmarginal units. 11 Marathon Oil completed the North Indian Basin Unit No. 8 Well on June of 1990. Had an 12 AOF of 14-, almost 15 million a day. Our No. 9 13 Well had an AOF of just under 18 million day, so 14 you have another similar point. And basically 15 that well averaged gas sales of 148,000 a month 16 for the last half of 1990. And allowables were 17 18 averaging 52 million a month in the field prior to Marathon's new well. 19 20 And this -- maybe we can look right On page 7 is a plot of basically of the 21 away. allowables in the Indian Basin Morrow field over 22 23 the past year-and-a-half. On the right column is 24 Mcf per month. On the left column is just an equivalent Mcf per day. And on the bottom is the 25

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1 monthly periods. Then going to the two six-month 2 periods on the far right for the current 3 proration periods. 4 And you can see that the allowables 5 were in the 50- to 75,000 range. They increased 6 dramatically to well over 200,000. And even now 7 they're still around the 150,000 a month.

My initial reaction was that maybe 8 Marathon had gone through a process similar to 9 what we're going through to obtain all that 10 11 increase. And I approached them and discussed it with some personnel from the Midland office. 12 And basically they did not do any kind of proactive 13 request like we're doing. They simply 14 overproduced their well and were able to get the 15 16 allowables up.

And the reason they did this was 17 basically it was a unique well in that it was 18 completely surrounded by dry holes on all sides. 19 20 They never intended to drill down there, but they dual-completed it with the shallower formation. 21 22 They decided to drill to the Morrow. They happened to get a good well. They produced 1.2 23 24 Bcf out of it in about a 15-month period. And the well is now depleted. 25

They knew from the geology and the dry 1 holes around it that it was a finite amount of 2 gas, and so they chose just to overproduce 3 because they -- the well would fall. The well 4 eventually fell off a few months ago and is now 5 not producing. 6 But that's where the similarity ends, 7 is -- you know, we think our well is going to be 8 9 around to produce, you know, for 15, 20, 30 years And so we've got -- we just can't afford 10 or so. to overproduce and run the risk of getting shut 11 12 in. One other item -- I think one other 13 point I wanted to make is in that April order, 14 three fields were singled out: Atoka Penn, 15 Indian Basin Morrow, and Indian Basin Penn. 16 They were singled out to raise -- to increase 17 allowables. 18 19 The reason was stated: The higher allowables were based on increasing pool sales, 20 21 nominations, and recent producing rates for nonmarginal wells. And we've met all three of 22 23 those criterias in our Catclaw Draw. We've 24 increased pool sales; we've increased our 25 nominations; and we've increased our producing

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rates from nonmarginal wells. 1 And, again, the top allowable now for 2 the Indian Basin Morrow increased another 33.6 3 percent to the 146,000 a month. That's 4.8 4 million a day. And the wells averaged only 2.1 5 million a day April through June, and is in fact 6 7 shut in now. And I made three conclusions from this 8 that I think help support our position. 9 The allowables, certainly the months when the 10 11 allowables were well over 200,000, did not restrict production from the highest capacity 12 wells. Item No. 2, the nonmarginal unit 13 allowables have increased 178 percent in just 14 15 over a year. 16 And the above scenario almost seems to 17 promote overproducing as a method to raise 18 allowables rather than working cooperatively with the OCD to raise allowables. As I've discussed 19 20 earlier, they could afford to do that because 21 they knew they would quickly fall back in line. We can't for that because we can't afford to have 22 this well shut in 60, 90-plus day during a period 23 24 of peak demand, and so that's why we're here to 25 work with them, to get these allowables up.

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Let me have you turn to the last page 1 Q. of Exhibit 6 and give us your ultimate 2 3 recommendations for the Commission. Well, that was just simply back to a Α. 4 lot of this math and gyration of numbers that we 5 talked about. Number one, rather than wait till 6 April 1, 1992, we could increase the -- we'd like 7 to see an increase of the OP limit now to 8 450,000, which is, again, as we've mentioned, six 9 times the current F1. 10 11 And/or -- "and" we'd like both of these things. We would like to see an F1 factor, you 12 know, go up to the 140,000-a-month range. Again, 13 as we've discussed, the allowable well to be 14 produced at a higher capacity. 15 16 MR. KELLAHIN: That concludes my examination of Mr. O'Connell. We would move the 17 18 introduction of Exhibits 1 through 8. 19 CHAIRMAN LeMAY: Without objections, Exhibits 1 through 8 will be admitted into the 20 Questions of Mr. O'Connell? 21 record. CHAIRMAN LEMAY: Mr. Weiss. 22 EXAMINATION 23 BY COMMISSIONER WEISS: 24 It sounds to me like the basic problem 25 Q.

was just one of how to get the data transferred 1 2 quickly. Yes. I think that's a definite part of Α. 3 it is there's a --I'm not sure where the OCD gets their 5 Ο. information, but I think it's all public domain 6 It's published and yours is not; is type thing. 7 that right? 8 9 Α. No. It's all published. It's state production numbers. The problem was, I think, we 10 had all these changes that occurred in the 11 summer, and the only way to incorporate those was 12 13 through our nomination process. We submitted a nomination of 407,000 Mcf prior to the hearing. 14 And, you know, basically if you took 15 that 407,000, which Hallwood says we can produce, 16 and if you added the 50,000 a month from the 17 other operators, that would be somewhere in the 18 neighborhood of 460,000. But the end result was 19 20 242,000. 21 Ο. Somehow or another those numbers didn't 22 get in the system; right? Well, I think they were in. 23 Α. They 24 weren't fully utilized, or maybe they didn't believe we could really produce that or not. 25

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That's -- you know, I think that's one of the 1 2 contentions we're trying to make is, you know, sure, those are tremendous increases in the pool 3 deliverability. 4 And maybe there's a tendency not to 5 believe that that really can transpire. But 6 we're saying let us produce that and try, and if 7 we're -- if we can't produce and sell that 8 9 amount, we'll adjust our nominations accordingly, 10 and the system will start working if -- so. 11 Q. Okay. That seems to be the problem to 12 me. 13 Α. Yes. It seems like a lot of extra effort to 14 Q. 15 have to do this to get those numbers into the 16 system to go through a hearing. 17 COMMISSIONER WEISS: I think that's my 18 only question. Thank you. 19 THE WITNESS: Thank you. CHAIRMAN LeMAY: 20 Commissioner Bailey. 21 EXAMINATION 22 BY COMMISSIONER BAILEY: 23 Q. In your comparison with the Marathon 24 well, with the Marathon well that was completely 25 surrounded by dry holes, dry Morrow holes, you

said this No. 9 was surrounded on five sides by 1 dry Morrow wells, do you have a decline curve or 2 any such evidence to show that this well does 3 have the capacity to produce long-term rather 4 than following the same type of production 5 histories as the Marathon well? 6 Yes. The one is the exhibit that I 7 Α. showed the 6 or 7 percent pressure drop. 8 Another 9 one we don't have enough data on, but we're 10 plotting flowing tubing pressure versus 11 cumulative production. And we've really only got 12 three or four points. And depending on how you draw a line there, you could say that this well 13 could produce anywhere from 8 to 18 Bcf. 14 So we 15 don't have enough good data there to draw a conclusion. 16 But the one thing I would like to --17 the one difference is the Marathon well only had 18 19 16 feet of net pay. Our well's got 73 feet of 20 net pay. So just, you know, on a poor volume 21 basis, you can get a lot more gas in, what, five 22 times the amount of pay. 23 So, you know, we've -- we're pretty 24 confident that we do have substantial gas reserves and the well is going to be around for a 25

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number of years, just based on the pay, based on 1 the pressures. And I think they saw a rapid 2 decline in their pressures too where we haven't 3 seen that. 4 And just a procedural question. Were 5 Q. the other three operators in this pool notified 6 of this hearing and did they--7 Α. In our pool? 8 Uh-huh. 9 ο. Or in the Catclaw Draw Pool? 10 Α. 11 Q. Yes. Α. Yes. Prior to the August hearing, we 12 approached all of them with this letter, which 13 they all have signed off on, and they were all 14 very much in support of raising allowables, 15 raising nonmarginal allowables. 16 17 COMMISSIONER BAILEY: That's all I 18 have. 19 EXAMINATION 20 BY CHAIRMAN LeMAY: Mr. O'Connell, you say 73 feet in the 21 Q. 22 No. 9? 23 Α. Yeah. The environment of deposition, do you 24 Q. think it's channel sand, or what kind of sand do 25

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you think you've got there? 1 Well, it's not one -- there's like, I 2 Α. think, there's five different zones that total up 3 to that 73 feet. Δ So that's a cumulative? 5 Q. It's just that's one -- that Α. Yes. 6 position of the No. 9 is -- structurally, it's 7 one of the highest areas in the field. And 8 somehow it just received a massive amount of 9 10 sands there and amount of gas. 11 Q. As far as environment of deposition, 12 you don't have any idea as to what you're 13 classifying those reservoirs as? Maybe it's an unfair question. 14 15 I think they're marine sand deposits. Α. 16 Q. I think with that much sand and deliverability and you were implying, I think, 17 that those five dry holes would condemn the 18 surrounding sections as to those sands spilling 19 over and having some production in those sectors? 20 The problem -- in fact, we've got that 21 Α. 22 No. 11 Well and we've got -- I should have had a structure map here. But from the No. 9 Well to 23 24 the No. 11, which is just a little over a half-mile, you basically fall off and go 25

down-structure well over 200 feet, and you fall 1 2 down all the way around on those sides. So you literally just have a, you know, 3 a nose or an accumulation there. And those wells 4 are down-dip, and they're wet. They were 5 Some of them produced, oh, 15- or 20,000 6 tested. Mcf, and then they were just plugged and 7 abandoned. 8 Q. The 3 and 11 should be originally 9 down-dip, should they not? What -- the Hanagan 10 11 No. 1, Round Tank Mountain, and the Hanagan 10, those are originally up-dip? 12 13 Α. No. They're down-dip too. They are down-dip? 14 **Q**. Yeah. 15 Α. But I say -- reasonably they should be 16 Q. up -- but they're down-dip from the No. 9? 17 Yeah. You just have a high area there 18 Α. or a crest, and it's down on all three sides to 19 the south and to the east and west there. 20 It seemed like most of -- I'm trying to 21 Ο. boil it down to what you want is the only well 22 that's truly affected in this whole field by our 23 order and what you want is No. 9, isn't it? 24 Isn't that what we're arguing about? What can be 25

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1 produced by the No. 9?

2	A. Yeah. It has a secondary benefit too.
3	By increasing the allowable, it allows our other
4	proration unit, the 13 and 1Y, to produce without
5	being shut in. In August I presented some info,
6	that 13 and 1Y during 1990 was shut in roughly 50
7	percent I think it was 44 percent of the time
8	because even it produced over its allowable.
9	So by raising the allowable for the No.
10	9, it raises the allowable for the No. 13 and the
11	1Y, so that's a secondary benefit that we get to
12	produce that well at higher rates too or not
13	at higher rates. We get to produce it year-round
14	if we choose to.
15	Q. I thought your testimony was the 1Y and
16	No. 13 had a deliverability at approximately 1.4
17	million a day?
18	A. Yes.
19	Q. Well, 75 Mcf a day would accommodate
20	that deliverability, would it not?
21	A. Seventy-five million?
22	Q. Isn't that what
23	A. Yeah, it does now. Okay. I see. But
24	previously it didn't. Yes, going from the
25	Q. Prospective you're okay, aren't you?

On that one? 1 Α. Q. Yes. 2 3 Α. Yeah. 4 Q. So is it truly No. 9 we're talking 5 about, prospectively now? Α. Yes. 6 As to curtailment? Q. 7 Yes, literally we can produce Α. Yes. 8 everything else within the guidelines of the 9 75,000,000 a month, or 75,000 Mcf a month. 10 But 11 we would like to produce the No. 9. So we're talking about the No. 9 then? 12 Q. 13 Α. Yes, sir. As the critical well? 14 Q. 15 Α. Yes. 16 Q. Would it be fair to characterize -- and I think I got this from you -- but correct me if 17 I'm wrong. Were you saying a prorated field, if 18 19 we can produce it, we should be allowed to 20 produce it? If the market demand exists, I would 21 Α. 22 say yes. What would be the purpose of proration? 23 Q. Well, I think proration still serves a 24 Α. 25 purpose to protect correlative rights, to

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establish well spacing, and all that and also to 1 prevent -- you know, if you didn't have 2 3 proration, I guess you could overproduce considerably. 4 Well, you can't overproduce if you're 5 Ο. setting the allowable at the limit of the best 6 well in the field, are you? How can you 7 overproduce? 8 Well, the 5,000,000 a day that we'd 9 Α. like to see it, the well has produced at more 10 than that. We can -- we're holding it at 11 I guess conceivably you could go out 12 5,000,000. 13 and -- if somebody wanted to, you could go out and produce this well at 9 or 10 million until it 14 was just exhausted, but we don't want to do 15 16 that. I think that's overproducing. 17 You know, I think proration still has a benefit. 18 But by setting the allowable at the 19 Q. 20 deliverability of the best well in the field, you 21 think that proration still is valid with that 22 kind of a concept? Yes. Yeah, I think so. 23 I think it Α. 24 keeps things in balance. It protects you on a 25 correlative rights basis.

Q. I have a hard time understanding the difference in a non-prorated field and a prorated field that's set at the deliverability of the best well in the field.

Well, I don't think we're really Α. 5 setting it at the deliverability because, you 6 know, the deliverability, I guess, is anywhere 7 between zero and almost 18 million a day. We're 8 just setting it at a reasonable rate that we 9 would like to produce, and it happens to be the 10 11 highest rate in the field.

The OP, you used as a comparison the 12 Q. 13 North Indian Basin field. Are you familiar with the way we used to set allowables prior to the 14 six-month period where we encouraged operators to 15 16 overproduce which would define the market and 17 therefore they would get increased allowables? Yeah, that's a method, you know, 18 Α. Yes. and we've debated that internally and with 19 And, you know, overproducing is a way to 20 Victor. get your allowables up. 21 But it's also a way to define the 22 Ο. 23 market, is it not, in the past where nominations

A. Yeah. It's a way to -- yeah, a way to

were not proving a reliable factor?

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define market demand; is that what you're 1 2 saying? Yes. 3 Ο. Α. Yeah. 4 And are you familiar with our proration 5 Q. system now where that's not the way we define 6 market or assign allowables, although production 7 is used? 8 9 Α. Yeah. We're going to a nomination process and actual past production. 10 So it still is a factor, I think, but 11 ο. it's probably not as big a factor as it was 12 before --13 14 Α. Yeah. -- where it was the only tool? 15 Ο. 16 Α. Yeah. But the risk we ran there, that's -- you know, that's the business risk I 17 quess we could have taken is, I guess, we could 18 19 have avoided all the hearings and all this and 20 just overproduced. If we hadn't have come to the hearing, 21 22 we might not have even got assigned the 75,000 Mcf allowable last time. And if we had an 23 24 allowable that was only 20- or 30,000, we could 25 have that well way overproduced in no time, you

know. And that's what we can't afford to do is
 run the risk of getting the well shut in for, you
 know, 80, 90, 100 days or so.

So that's -- we were trying -- the 4 system -- I agree with you 100 percent. 5 The system will work if overproducing and that. We 6 were trying to short-circuit or speed up the 7 system because we had such a dramatic change in 8 9 the field, and we didn't want to wait a year to 10 go through essentially two proration periods to 11 let all the wells shake out and change from 12 marginal to nonmarginal, et cetera.

13 Yes. That's the gist that I got from ο. Commissioner Weiss' comments and what he said; 14 15 that the reason basically why you're here is you 16 want to speed up the system you want to short-circuit it, give us information which is 17 18 ahead of what we would normally compile by our proration rules, where we get our information, 19 and how it's incorporated into the system? 20 21 Exactly. Α. Again, our proration system, did you 22 Q. imply that the OP is intended for continuous 23

25 limit. And I got the idea that you were assuming

overproduction? You made some comments to the OP

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that that OP limit was there so that operators 1 could continuously overproduce rather than allow 2 the flexibility to produce additional volumes in 3 various months, but there would still be a Δ make-up period? 5 No, not continuously overproduce. But Α. 6 the main thing I was trying to point out there is 7 we, as I mentioned, through the summer in testing 8 9 the well and producing it, we used up our OP 10 limit. 11 And the order was issued -- you know, the intent of the order was good; that, you know, 12 if we started into October with zero 13 overproduction, we could be producing at 3.7-, 14 3.8 million a day, a fairly comfortable number. 15 But we've used up that opportunity. 16 But there will be a limit how much you 17 Q. could produce, overproduce of that number; isn't 18 that correct? 19 20 Α. Oh, yeah. You couldn't produce it forever. 21 Ο. The OP limit didn't give you additional allowables, 22 so to speak. It would give you additional 23 24 allowables for the period of time you might need 25 it?

But, no, you can't always use 1 Α. Yeah. it. 2 You can't always use it. Q. 3 Α. Yeah. 4 You also made a suggestion that's an 5 0. interesting one. You would suggest that the OP 6 limit should be based on the most current 7 January -- we don't have January yet -- but you 8 would like to see us use the -- set the OP limit 9 on January 92 production rather than January 91 10 because of -- of course, the additional allowable 11 12 that you have in January 92 compared to January 91? 13 Well, the thing that I would prefer --14 Α. yeah, that's the interesting question that we 15 arrived at this week and talked to three 16 different people. And, you know, the current OP 17 limit is based on the current year. Does it --18 on January 1 does it change to 450,000? And the 19 answer is no because, really, the proration 20 21 schedule doesn't change now. Come January we don't get a new schedule, so there's no real way 22 23 to change it. 24 So I think in looking at that, I'd rather see it change twice a year based on the --25

at the start of each proration period. I think 1 that would be more timely and more accurate. 2 Based on what production month if you 3 Q. changed it twice a year? 4 Well, I'd just base it on your new F1 Α. 5 at the start of each proration period. 6 Q. Like a January-June? 7 Like your -- it would be based on 8 Α. No. your April 1st F1 and then your October 1st F1, 9 so it would change, because, as we've shown, a 10 11 lot of events can happen in the course of a year or 15 months that could make the OP outdated. 12 13 And since we only -- we're only going to go to two proration schedules or get two 14 proration schedules a year, that would be an 15 excellent time to change them, at the start of 16 each of those six-month periods. 17 CHAIRMAN LeMAY: Okay. Thank you. 18 MR. STOVALL: I've got a couple of 19 20 questions I want to check on. 21 EXAMINATION BY MR. STOVALL: 22 23 Q. Talking about the OP thing first, since that's what you're on --24 25 Α. Okay.

-- in the case of the Hallwood wells in 1 Q. the Catclaw Draw, part of the reason that you 2 reached your OP limit in the summer was the fact 3 that you had done this work this particular year, Δ and it increased the capacity of those wells 5 during that proration period; is that not 6 correct? 7 Yeah, in the middle of the summer 8 Α. 9 proration period, because we did this work in 10 May, which was already a month-and-a-half into the period. 11 So what that in effect did is -- well, 12 Ο. 13 let me back up and go through the system and make sure your understanding of it is the same as 14 15 mine, because it goes to some other questions as The preliminary nominations or schedule 16 well. 17 put out by the Division is based upon production or sales, however you want to identify it, for 18 the similar like period of the previous year; do 19 you understand that to be correct? 20 21 Α. Yeah. Yeah, actually there are --

Q. So, in other words, when this schedule was initially put out prior to the August hearing, it was based upon October through March production for the previous --

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Yeah. Α. 1 -- period; right? 2 ο. Yeah. And at that time the -- you 3 Α. know, the Catclaw 9 was making 300 Mcf a day. 4 Q. So in that -- with respect to that 5 part, the fact that you did the work, what you're 6 7 telling us is you came in with the nominations and tried to say, "Hey, we've done some things 8 that have caused that to be unreliable 9 information upon which to" --10 Yes, exactly. 11 Α. But given the fact that -- looking at 12 ο. the system as a whole -- that the reason the 13 January allowable is chosen as the OP is because 14 that should be seasonally the highest month of 15 16 the year in terms of business roughly? 17 Α. Right. It's right in the peak; is that 18 Q. 19 correct? 20 Α. Right. 21 Would it be -- taking out the factor of Q. 22 reworking wells and increasing capacity in the middle of the summer, could it not work to the 23 detriment of operators to have the OP limit go 24 25 down in the summer? What would you

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1 presumably do, because presumably the factors that affect proration would cause the allowables 2 to go down in the six-month summer proration 3 period? 4 Yeah, I guess that is a possibility Α. 5 that it -- if you're -- yeah, that would be 6 something we'd have to consider, one of the 7 alternatives if it went down. But I guess -- I 8 9 quess all I'm saying is that if it changed twice a year, it would change correspondingly with your 10 allowable or your production limit. 11 Well, as it did on a monthly period, it 12 Q. followed the allowables based upon the month, so 13 it changed on a monthly basis. And you're 14 saying: "Do the same thing. Follow the 15 16 proration period and change it." Yeah. 17 Α. But a lot of your conclusions and 18 Q. recommendations are based upon what was really an 19

20 unusual summer for Hallwood in the Catclaw Draw;
21 isn't that right, in terms of the stimulation and
22 reworking of the wells?
23 A. Oh, yeah. Yeah. I wish we could do it
24 again next summer, but I'm afraid we can't.

Q. Leaving that and going back to the

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other part of the information Commissioner Weiss 1 asked you -- or essentially told him in response 2 to his question -- the large part of the problem 3 was due to the fact that the information flow was Δ not accurate. And, again, that was due to the 5 fact that to establish the proration schedule, 6 the OCD compared like periods of the year? 7 Α. Yeah. 8 And the information which Hallwood 9 Q. 10 generated, again, in an unusual summer of large 11 capital expenditures and some successful 12 reworking, was in the opposite proration period. 13 Α. Yes. So that information would not -- would 14 ο. only come into the thing through the nomination 15 16 process, not through the reporting process; 17 right? 18 Yeah. Α. So it didn't indicate -- so with 19 Q. respect to that information, there was not a 20 21 deficiency in the actual OCD C-115, C-111 22 reporting process, to the best that you can see? 23 Just a little bit due to production. Α. 24 There were some numbers there, but not 100- or 25 200,000 difference. It was only 20 or 30. But,

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1 yeah, the main difference was in the nominations 2 that, you know, we would have liked to see more of an emphasis or use of our nominations because 3 we felt like they were good, accurate, timely Δ data that would have helped set this allowable 5 higher. 6 But let me go back to make sure I 7 ο. understand because I think it does indicate 8 9 something that we need to look at, if I'm 10 understanding you correctly. The preliminary 11 pool sales, the Division came out -- I guess it's 12 your Exhibit 3, I believe? 13 Α. Yes. 14 Q. -- showed 136,500. Based upon C-111's, 15 which is what the Division has always used for 16 the allowable system and still does up to this 17 point; is that correct? Α. Uh-huh. 18 But you -- I think you said -- and I 19 Ο. can't find the exhibit right offhand -- but I 20 think you told us that your C-115's for that same 21 22 period were considerably higher? 23 Yeah, about 190,000 versus 136. Α. 24 ο. Again, remember I'm asking these questions not to challenge you or to question 25

your numbers, but I'm trying to say, given -- and 1 I'm assuming when you're talking C-115, you're 2 3 talking about disposition and not production on the C-115, because there would be some field use, 4 but it would be certainly less than that 5 difference. 6 7 Α. Oh, yeah. Have you been able to identify where 8 Q. the problem is and why there is a such a drastic 9 difference between -- that all gas that's 10 11 disposed of should show up on a C-111 someplace, 12 shouldn't it? I'm not 100 percent sure, but if 13 Α. Yeah. you take our 190 versus the 136, that's what? 14 44,000 difference. I think about half of that is 15 16 one well -- the No. 6 was missing. I've noticed 17 over the last couple of periods that production data was missing, and that makes 20-, 22,000 a 18 month. 19 20 Q. Missing off the schedule? 21 Α. Yes. 22 Off our proration schedule, it's not Q. 23 showing up; is that what you're saying? 24 Α. Yeah. 25 Have you done anything to look into our Q.

system to see if the 111's are in or if that 1 2 information is getting entered into our system? Yeah, I think we have via Vic Lyon 3 Α. helping us, I believe. 4 MR. STOVALL: That's something I would 5 suggest, Mr. Chairman, that we need to look at 6 that to see if -- because if there are some 7 problems there, we definitely need to look and 8 make sure we're getting that. 9 Of course, that's part of the new 10 Ο. system that will be coming out, and we want to 11 make sure we're -- one of the purposes is we'll 12 be able to match up 111's and 115's. And if that 13 data is not good, we need to figure out how that 14 is. So I would appreciate your assistance in 15 16 that. 17 But that's really the big area where any discrepancies or lack of accurate, timely 18 transmission of information occurred was for this 19 like period where you're saying one well 20 basically got left out of the nominations or the 21 22 proration system in some way; is that correct? Well, actually it was three wells. 23 Α. 24 Three wells. 25 Those three that are listed on Ο. Okay.

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71 whatever exhibit that is? 1 Α. Yeah. Substantial volumes. 2 MR. STOVALL: I don't have any other 3 4 questions. CHAIRMAN LEMAY: I have one, maybe 5 They're related. two. 6 FURTHER EXAMINATION 7 BY CHAIRMAN LEMAY: 8 9 Ο. Do you know of any proration units or any wells that are in the Catclaw Draw field that 10 11 by Commission or Division order have had their 12 production restricted? Over what period? 13 Α. Well, normally a nonorthodox location 14 Q. that's, we'll say, opposed sometimes the 15 Commission or Division will issue a restricted 16 allowable where the allowable serves as a purpose 17 to limit production from that well. 18 19 Α. You mean as a penalty? 20 As a penalty. ο. 21 Α. No. I'm not aware of any. MR. STOVALL: No unorthodox locations 22 or anything in there which would have a penalty 23 24 applied to them? THE WITNESS: 25 No, I don't believe there

is because that would -- probably if they had a 1 penalty, that would show up in the form of --2 well, I don't know if the penalty would be in the 3 reduced acreage factor or --4 MR. KELLAHIN: Mr. Chairman, there are 5 6 none. CHAIRMAN LeMAY: Thank you, Mr. 7 8 Kellahin. 9 Ο. (BY CHAIRMAN LEMAY) The reason for 10 that question was then have you considered an 11 alternative type application, one that would 12 de-prorate the Catclaw Draw field rather than 13 trying to get allowables that would accommodate 14 you once you were --Yes, with all the events that are going 15 Α. on in Burton Flats, which we understand is 16 effectively de-prorated now, you know, that 17 certainly is another option. Personally, it's a 18 19 very time-consuming process to de-prorate a field. 20 And as the major operator in the field, 21 22 the other operators would anticipate or expect us 23 to carry that ball forward. And, you know, 24 personally we would not -- we would rather not 25 pursue a de-proration if we can accomplish what

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we want here just because it is very 1 time-consuming. You've got to notify everybody. 2 3 And, you know, it would be probably several trips down here. 4 And we would rather -- selfishly, we 5 would rather direct our energies towards finding 6 more gas and oil than de-prorating what we 7 already have, quite frankly. 8 Q. The only other question was concerning, 9 again, our proration system and the place that 10 11 nominations have in that system. Are you under the impression that nominations are a determining 12 13 factor currently in the way allowables are set? Or what is your view as to the role of 14 nominations in the proration system? 15 16 Α. I think they should be a determining factor because they're the best information and 17 they can reflect any big change. I don't think 18 they have been used. In fact, maybe we could 19 20 point out that statement that -- should we point 21 out that statement that Jim made prior to the 22 hearing? We would like to see nominations used. 23 In reading the transcripts from the August 24 hearing, Tom asked -- Tom Kellahin asked Jim 25

1 Morrow: "Now, have you received any nominations from the transporters or purchasers with respect 2 to proposed allowables for the upcoming period? 3 "Answer: We've received some, just 4 very scattered nominations in the various pools. 5 Actually, the only pool where we received 6 nominations which even come close to what we have 7 proposed to assign here is in the Catclaw Draw 8 Pool where we received nominations totaling a 9 monthly allowable of 407,000 Mcf on the monthly 10 basis." And that was the number we provided. 11 12 So I think the intent was to use that 13 or, as Jim expressed, he was proposing to assign 14 something based on that and then when the final analysis came out, it got cut nearly in half. 15 16 Q. Did you notice any difference in what 17 was preliminarily proposed for Catclaw Draw in the way of allowables and what came out in the 18 final order? Was there any difference? 19 20 In the preliminary and the final? Α. 21 Ο. Yes. 22 Yeah, it increased slightly, I believe, Α. but not -- yeah, you know, the preliminary 23 allowable was 150,500, the final was 242,248. 24 Would you consider that marginal? 25 Ο. That

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1 sounds significant to me as far as an increase. But then comparing that to the 2 Α. Yeah. nearly 460,000 that can be produced, it's still a 3 long way off. 4 5 Ο. Well, yeah. Nominations -- the absence of nominations, would you not expect that the 6 preliminary order would have been the final order 7 8 without your input of nominations? What other 9 factors --10 Α. Yeah, with the absence. 11 -- were an intervening factor in there? Q. 12 Α. On the preliminary? 13 Q. Yeah. Between preliminary and final 14 what other element besides your nominations could have increased the allowable in that field for 15 16 this six-month period? 17 Well, the hearing, the information we Α. testified at the hearing. 18 19 Which was basically nominations, was it Q. not? 20 Yeah, trying to support our 21 Α. 22 nominations. Well, then, wasn't it the nominations 23 Q. 24 that were the increasing factor for allowables? 25 Wasn't it your nominations that increased the

allowables from, what, 150 to 240? 1 Yeah. But, again, we only received a 2 Α. partial increase. 3 I understand. It wasn't everything you Ο. 4 wanted, but if you didn't have any nominations at 5 all, would you not expect the previous allowable 6 to prevail? 7 Α. Oh, exactly. And that's why we came to 8 9 the hearing, because the preliminary allowables were much lower than what we could live with, 10 11 yes. 12 As I understand it, the nominations are Q. 13 a factor in our proration system generally, but 14 they're not the determining factor. And that's 15 been historically true since nominations from 16 pipelines, which did define market, since that 17 was no longer the case when the spot market evolved, we still collect nominations. 18 19 Α. Yeah. I didn't know if it was your impression 20 Ο. 21 that these nominations were as critical as they 22 were when pipelines were defining the market, or 23 they were just a factor along with a lot of other 24 things that are used to determine allowables. 25 Α. Yeah, I understand that. And we, I

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guess, would like to just see more of an emphasis 1 on the nominations because in some of our 2 preliminary meetings, that was what was expressed 3 to us. Everybody knew the nominations were 4 5 meaningless in many fields. And they've gone from purchaser or 6 transporter -- in Catclaw we've gone -- Hallwood 7 nominates all of our volumes, and we instruct Gas 8 9 Company not to so you don't get a duplicate. And 10 that is fine with the OCD personnel, because they 11 told us, they flat out -- they would like one good source to get the nominations from. 12 And we said, "Well, we're the best 13 We operate the most wells in the field. 14 source. And we'll tell Gas Company not to. And we'll 15 give you a good number for nominations." 16 17 Would you consider nominations Q. 18 meaningless? Did I hear you say that, or was 19 that --20 I think they were in the past. Α. 21 Ο. They certainly affected your allowable in this field, didn't they? 22 Oh, in this hearing, yeah, absolutely. 23 Α. 24 In the past nominations have not ever been used 2.5 in --

COMMISSIONER WEISS: I think he's 1 2 talking about a long time ago. THE WITNESS: Yeah. 3 Q. (BY CHAIRMAN LEMAY) I was trying to 4 clarify your impression of nominations in the 5 process we use with nominations, the emphasis, if 6 7 any, we place on them. Α. Yeah. 8 CHAIRMAN LEMAY: Any other questions of 9 the witness? 10 MR. STOVALL: I do have a couple of 11 12 other things, real quick. 13 FURTHER EXAMINATION BY MR. STOVALL: 14 With respect to the issue of 15 Q. 16 de-prorating the pool, how many multi-well 17 proration units are there? Are the majority of 18 them? Looks like yours are from the schedule that I see. 19 20 Α. Yeah. Largely multi-well units? 21 Ο. 22 Yeah. I can tell you quickly. There's Α. 23 one, two, three, four, five, six, seven -- I believe there's at least eight. 24 Eight multi-well proration units? 25 Q.

A. Yeah.

Q. How many total proration units in the3 pool?

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A. Eighteen, I believe, or 16.

Q. Half of them are multi-well. So, in 5 your opinion, would that be a good reason for 6 retaining proration in the pool even if it 7 doesn't effectively restrict production at any 8 9 point in time as to put some control on multi-well units given the knowledge that we 10 11 don't allow multi-well units as a general rule in unprorated gas pools? 12

13

A. Yeah.

14 Q. The other question is do you know of 15 any operators in this pool who are withholding production from the market for business reasons 16 17 that they have chosen on their -- in other words, are there some of these wells, actually 18 19 marginal -- are some of the proration units 20 actually marginal because operators are not 21 producing them at capacity for whatever business reasons they might choose not to produce them? 22 23 Α. No. I think they're all producing 24 essentially at their capacity in talking to people and looking at the performance of the 25

wells. 1 2 Ο. So the production that's showing up is 3 realistic capacity level production rather than artificially restricted by the --4 Α. Yes, sir. 5 CHAIRMAN LeMAY: I guess I have a 6 couple of follow-up questions to Mr. Stovall's. 7 FURTHER EXAMINATION 8 BY CHAIRMAN LeMAY: 9 The Catclaw Draw field is on 640-acre 10 ο. 11 spacing where a second well is allowed; is that true? 12 13 Α. Yes. You mentioned multi-wells, so I would 14 Ο. assume rather than 320's --15 16 Α. It went both ways. This is a unique It was 640's, it went to 320's, and then 17 field. it went back to 640's. Is that my --18 MR. KELLAHIN: Mr. Chairman, a number 19 20 of years ago when Tenneco was the primary 21 operator in the pool, they believed that there was an ability to drill additional wells and that 22 23 640 spacing was too wide. They entered into a 24 Division-approved de-spacing or down-spacing to 320. 25

And the ink was hardly dry in the order 1 when they realized they had disturbed existing 2 equities because of different ownerships within 3 the 640. And so we had the down-spacing order 4 5 set aside and substituted in infield drilling procedure in Catclaw Draw. 6 So there may be a glitch when you look 7 at some of the acreage components in the 8 9 schedule. It's supposed to be 640 as the standard size with an infield option. 10 11 CHAIRMAN LEMAY: Thank you, Mr. 12 Kellahin. The Catclaw Draw unit being unitized, 13 what would be the practical effect of utilizing 320-acre spacing now if you unitized it? 14 MR. KELLAHIN: Well, the unit only 15 covers the royalty interests. Working interests 16 are not unitized. 17 18 CHAIRMAN LeMAY: Thank you. Additional questions of the witness? 19 20 If not, he may be excused. Thank you. THE WITNESS: 21 Thank you. 22 MR. KELLAHIN: Mr. Chairman, I think 23 the topic of proration is probably the most 24 complicated, convoluted exercise that we 25 undertake. And I've heard some comments today

about prorationing being used to accomplish 1 different things. We have additional experts, 2 and I'll leave it to the Commission to decide if 3 4 you want any of them to comment. I would like to discuss with the 5 Commission some of my own personal conclusions 6 about prorationing and have you correct me if 7 I've been wrong for the last 20 years, but 8 9 there's some things perhaps I don't understand that may affect what we're doing in Catclaw 10 11 Draw. So subject to making a closing 12 13 statement, I would simply invite the Commission to ask any of the other witnesses available here 14 for comments if you desire to do so. 15 CHAIRMAN LeMAY: I think we've pretty 16 17 well covered a lot of our concerns. Certainly in 18 the closing arguments you can address what you -any comments on what proration, I guess, affects 19 Catclaw Draw. 20 21 MR. KELLAHIN: We provided you with a rehearing statement in which I tried to summarize 22 23 as clearly as I could what I think is a correct 24 analysis of the prorationing system in New 25 I'm not sure I yet have it all figured Mexico.

figured out in a simple way to explain to any
 layperson.

But, as I understand it, it is a pool-driven market demand prorationing where we identify a common source of supply and identify market demand. And in those instances where the total pool deliverability exceeds that market demand, then there is the opportunity to prorate the pool.

10 Catclaw Draw and Morrow are two pools I 11 prorated, one of the first things I did in 1972. 12 And the basic benchmark that I was told then is 13 that if total pool deliverability exceeds market 14 demand, then and only then can you consider 15 prorationing.

16 The great perceived evil, I guess, at that point in time is that when there's excess 17 pool deliverability, the fear is that the 18 pipeline purchaser at that time would work a 19 20 special deal with certain operators that had high capacity wells, satisfy the entire market demand 21 22 from a few wells, leaving all of the rest of the wells in the pool despite the fact that they want 23 to access the market to in fact have no market. 24 In addition, there was integrated the 25

idea of multiple pipeline takers. Again, to 1 avoid the opportunity where one pipeline would 2 3 take gas from the pools, satisfy the entire market demand, and because other wells were tied Δ into another pipeline, despite their desire to 5 sell that gas at whatever price, they could not 6 produce the gas. And, therefore, drainage was 7 8 going to occur. The big super wells were going to get their share of the gas and everybody 9 else's share, and the people that had wells and 10 11 investments in the pool could not produce. When we got around to Burton Flat again 12 and substantial effort to examine prorationing, 13 we finally de-prorated that pool. 14 And the benchmark again was that the market demand at 15 that point in time had substantially exceeded the 16 deliverability of that pool, even with 17 18 projections of what additional capacity might be 19 obtained by recompletions and workovers. 20 When we come to the Catclaw Draw, I 21 find it confusing to find that allowables are 22 being set in this pool on something other than 23 market demand. The nominations provided by 24 Hallwood in this particular case reflect market They can't reflect anything else. 25 demand.

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I think that's what Mr. O'Connell's 1 testimony has been: That he has analyzed it; Gas 2 Company has supported us and said, "We can take з 4 and sell this gas. That represents the market He provides us a number, 450,000 -demand." 5 whatever it was -- on a monthly basis. And we 6 say, "We've done our homework. We've done our 7 We've come to the Commission and satisfied 8 job. 9 you an accurate projection of market demand for pool production." 10 The allowable schedule is issued, and 11 we received allowables that don't reflect market 12 demand. I'm not sure what they reflect, except 13 the impact is to cause us not to sell gas from 14 the pool that Gas Company would otherwise take 15 from this pool and unless changed, they're going 16 17 to go to some other market or some other state. I think we don't need to de-prorate 18 19 Catclaw Draw at the present time. It's There are a lot of hurdles to climb 20 premature. 21 over. The system will work if we adjust the 22 allowables based upon market demand. I find no obligation in your statutory 23 authority or any of the articles that I can find 24 and I have cited in the rehearing application 25

1 that obligate you to substitute an allowable so
2 that the high capacity wells are restricted and
3 are set below market demand. I don't find
4 anything in the system that quite frankly
5 provides that.

When we look at Catclaw Draw, Mr. 6 O'Connell tells you that the wide open flow of 7 the No. 9 Well may in fact be in excess of the 8 9 maximum efficient rate at which to produce this 10 And he's not yet prepared to tell you that well. the total market demand for this pool exceeds the 11 12 deliverability. We're pretty close, but I think 13 the No. 9 Well ought to be curtailed less than 14 its total absolute open flow.

He has restricted his well to a market 15 demand number however. The Commission order as 16 issued gives us substantially less. We find no 17 basis for doing so and would ask that you make an 18 adjustment effective October 1 to reflect 19 Hallwood's undisputed evidence as to what market 20 21 demand is and adjust the allowables so the well 22 can be produced over the winter portion and this 23 gas production can go into the market and satisfy 24 that market demand.

25

I have in the rehearing application

1 made references to other treatises. I've cited some articles written by knowledgeable experts on 2 prorationing. If anyone cares to look at those, 3 I'll be happy to copy them and submit them to the 4 Commission for your analysis. 5 But the summary I made in the rehearing 6 application is what I truly believe to be a 7 proper analysis of market demand in New Mexico 8 9 and that unless we adjust this pool's allowable to reflect the market demand, we are not 10 11 consistently executing our duties pursuant to the definition in the statute. 12 13 Thank you. CHAIRMAN LeMAY: Thank you, Mr. 14 Kellahin. 15 Are there any additional statements in 16 Case 10377? Any additional testimony? If not, 17 we shall take the case under advisement. 18 Thank 19 you. 20 (The proceedings were concluded 21 at the approximate hour of 22 10:50 a.m.) 23 24 25

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