

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

CASE 10,555

EXAMINER HEARING

IN THE MATTER OF:

Application of Meridian Oil, Inc., for amendment
of Division Order No. R-8170, as amended, to
establish a minimum gas allowable in the Justis
(Glorieta) Gas Pool, Lea County, New Mexico

TRANSCRIPT OF PROCEEDINGS

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BEFORE: DAVID R. CATANACH, EXAMINER

OIL CONSERVATION DIVISION

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

November 5th, 1992

A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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* * *

I N D E X

Page Number

Appearances

2

TOM O'DONNELL

Direct Examination by Mr. Kellahin

5

Examination by Examiner Catanach

29

Examination by Mr. Stovall

36

Certificate of Reporter

45

* * *

E X H I B I T

APPLICANT'S EXHIBIT:

Exhibit 1

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* * *

1 WHEREUPON, the following proceedings were had
2 at 9:40 a.m.:

3 EXAMINER CATANACH: Call the hearing back to
4 order, and at this time we'll call Case 10,555.

5 MR. STOVALL: Application of Meridian Oil,
6 Inc., for amendment of Division Order No. R-8170, as
7 amended, to establish a minimum gas allowable in the
8 Justis (Glorieta) Gas Pool, Lea County, New Mexico.

9 EXAMINER CATANACH: Are there appearances in
10 this case?

11 MR. KELLAHIN: If the Examiner please, I'm
12 Tom Kellahin of the Santa Fe law firm of Kellahin and
13 Kellahin appearing on behalf of the Applicant, and I
14 have one witness to be sworn.

15 EXAMINER CATANACH: Okay, will the witness
16 please stand and be sworn?

17 (Off the record)

18 MR. KELLAHIN: If the Examiner please, my
19 first witness is a petroleum engineer, Mr. Tom
20 O'Donnell.

21 Mr. O'Donnell testified concerning the Justis
22 (Glorieta) Gas Pool at the Commission allowable hearing
23 in August, and he's back again today to present his
24 study concerning his conclusion that a minimum gas
25 allowable for the Justis (Glorieta) Pool is

1 appropriate.

2 He has reviewed, and he and I have
3 considered, the Texaco Order and the Doyle Hartman
4 Order that dealt with the Jalmat and the Eumont Pool
5 for a minimum allowable.

6 In doing so, we have suggested as an outline
7 a proposed order for entry in this case that has been
8 tailored to meet his presentation today, and it might
9 serve as a guide or an outline to you in his hearing
10 presentation.

11 We've gone through his Justis Gas Pool
12 information and tried to pick out specific findings
13 that addressed his pool, and I have the proposed order
14 as well as a computer floppy of the draft for your use,
15 Mr. Examiner.

16 (Off the record)

17 TOM O'DONNELL,

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

20 DIRECT EXAMINATION

21 BY MR. KELLAHIN:

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

24 A. Tom O'Donnell. I'm a senior reservoir
25 engineer with Meridian Oil in Midland.

1 Q. On a prior occasion have you testified before
2 the Commission concerning the Justis (Glorieta) Gas
3 Pool?

4 A. Yes, I have.

5 Q. Summarize for us your background and
6 qualifications. Where did you obtain your degree?

7 A. I obtained my degree from Texas A&M
8 University, a bachelor's in -- bachelor's of science in
9 petroleum engineering.

10 Q. And what year was that?

11 A. I graduated in 1986.

12 I worked for approximately five and a half
13 years for a major oil company in south Louisiana before
14 coming to Meridian, I guess about two years ago.

15 Q. Are you generally familiar with the
16 prorationing rules that apply to the Justis (Glorieta)
17 Pool?

18 A. Yes, I am.

19 Q. The end conclusion of all your resulting
20 efforts has caused you to reach an opinion about a
21 minimum gas allowable for the pool?

22 A. Yes, it has.

23 Q. What are you proposing for a minimum gas
24 allowable?

25 A. We are proposing a minimum gas allowable of

1 600 MCF per day per 160 acres, which is per an acreage
2 factor of 1.

3 The standard gas proration unit in Justis
4 (Glorieta) is a 320-acre tract with two acreage factors
5 in it --

6 Q. So --

7 A. -- so for a standard proration unit you would
8 actually have a minimum gas allowable of 1200 MCF per
9 day.

10 Q. All right. What is the gas allowable that
11 has been applied to the reservoir prior to the current
12 proration unit -- period that we are now in?

13 A. In the past, up until the last order came
14 out, where we had requested an adjustment to the
15 acreage allowable, it was, prior to that, 130 MCF per
16 day per 160.

17 Q. As a result of your presentation to the
18 Commission in August, the current winter proration
19 period has been adjusted so that the volume
20 attributable to an F1 factor translates to a daily
21 producing allowable rate on 160 acres of 600 MCF a day?

22 A. Correct.

23 Q. Let's go through the exhibit book, in
24 general, to tell the Examiner how you've organized the
25 book, and then we'll come back and do your specific

1 presentation.

2 A. Okay. In the first section, labeled
3 Notification, I -- what I've provided was all the
4 notifications that we gave to outside operators as of
5 this hearing, a copy of the Order that was issued as a
6 result of our last hearing.

7 Q. Are you talking about the Commission Order
8 entered setting the winter proration period allowables
9 that we're currently in?

10 A. Correct.

11 Q. All right. After that notification
12 information, what's behind the next tab?

13 A. Okay, the second section has an overview, and
14 that is just a general overview of the field itself,
15 with a brief history.

16 The third section is Justification, and I go
17 into specifics on the justifications for the minimum
18 allowable, and I specifically go into the economics of
19 offset wells, development well drilling.

20 The fourth section is labeled a miscellaneous
21 section, and this is simply just some miscellaneous
22 justification for the minimum allowable.

23 And the fifth section is production plots,
24 and that is a production plot of all wells in the
25 Justis field.

1 Q. The entire exhibit is numbered as Exhibit
2 Number 1, and then each page in the exhibit book is
3 identified by a different page number?

4 A. Correct.

5 Q. Let's go to the tab that says Overview. It
6 appears to be page number 5 in my book. Is that what
7 you have?

8 A. Correct.

9 Q. Do you have a large copy of the overview of
10 the pool?

11 A. Yes, I do.

12 MR. KELLAHIN: I'm not sure we'll put it up
13 on the wall, Mr. Examiner. We'll put it on the table
14 in the hearing room. You'll find the small copy is a
15 little difficult to read.

16 Q. (By Mr. Kellahin) Let's start with the
17 background information, Mr. O'Donnell.

18 Will you take page number 5 and give us an
19 orientation as to what you've depicted on that display?

20 A. Okay, on this plat, the -- I guess it is an
21 orange outline around the outside, is a field outline.

22 Q. That appears on only the small copy, the
23 orange outline?

24 A. Correct.

25 Q. And that is the current boundaries of the

1 pool?

2 A. Correct.

3 Q. Within that area there are different areas
4 that are also shaded. What do those mean?

5 A. Okay, each individual color represents a
6 different company and represents each individual
7 proration unit.

8 Q. How are the wells identified?

9 A. The wells are identified by three different
10 symbols, one representing a plugged well, one a
11 marginal well, and one a nonmarginal well.

12 Q. The current status of the pool in terms of
13 how many actual producing wells there are, both
14 marginal and nonmarginal?

15 A. Okay, there are actually 12 producing wells,
16 12 active wells right now, with five of them being
17 nonmarginal.

18 Q. Let's talk about the reservoir itself. If
19 you'll turn to exhibit page 6, 7 and 8, that portion of
20 the book, give us a geologic overview of what this
21 reservoir looks like.

22 A. Okay, the Justis gas zone is approximately
23 200 feet thick in this field. It lies beneath the San
24 Andres dolomite and is actually the upper hundred feet
25 of the Justis Paddock field.

1 The Glorieta is dolomitic, crystalline
2 sucrosic, occasionally oolitic, tan to brown,
3 vertically fractured, and vuggy porosity.

4 The Glorieta production is situated on a
5 structure on the western flank of the central basin
6 platform located five miles east of the City of Jal.

7 (Off the record)

8 THE WITNESS: The following page, page 7,
9 shows you the location of the Justis field in relation
10 to Jalmat, and the central basin platform, you can see,
11 it's on the western edge of the central basin platform
12 before you --

13 Q. (By Mr. Kellahin) Where is the Jalmat
14 reservoir in relation to the Justis reservoir?

15 A. The Jalmat reservoir is overlying the Justis
16 (Glorieta) field.

17 Q. Get to page 8, give us a summary of the
18 structure.

19 A. Okay, page 8 is a contour map showing the top
20 of the Glorieta. As you can see, it is just a general
21 anticlinal-type structure.

22 Q. Turn to page 9 now and give us a brief
23 history of the development and exploration of the pool.

24 A. Okay, the pool was created in 1950.
25 Proration was started in 1954. The last well that was

1 drilled in this field was in 1981, and that was the
2 Justis BC Federal Com Number 2. The prior well to that
3 was drilled in 1972.

4 So as you can see, in the last 20 years there
5 has not been much activity at all in this area.

6 There are 21 completions in the Justis
7 (Glorieta) field, one completion in the North Justis
8 field, and I just list that because it's actually on
9 the same structure.

10 There are 12 active wells, and a standard gas
11 proration unit in this pool is 320 acres with an
12 acreage factor of two.

13 Q. Have you provided the Examiner with a
14 tabulation of the 12 active wells in the pool?

15 A. I have provided in page 10 a tabulation of
16 all the wells in the pool. It shows the location, the
17 status, whether it was inactive. "N" is for
18 nonmarginal, "M" is for marginal. I show the acreage
19 that's assigned to it in the proration schedule.

20 I show the current average production rates
21 from April through September, 1992, and, as of January
22 1992, the over/under status of all the wells, with --
23 and I note at the bottom of the page, "overproduction
24 is negative", same convention as in the proration
25 schedule.

1 Q. Are there additional opportunities to improve
2 ultimate recovery from this reservoir?

3 A. Yes, there is.

4 Q. How do you propose we accomplish that
5 increase?

6 A. Okay, we see that this field has been
7 neglected for a number of years. We see ultimate
8 recovery can be increased through general maintenance,
9 workovers and drilled wells.

10 Q. Do you see an opportunity for improving
11 ultimate pool recovery by an infill drilling program?

12 A. Yes, we do.

13 Q. The infill program consists of what?

14 A. The infill program consists of drilling on
15 acreage that we feel would not be drained by other
16 wells. We also feel that there are some possibilities
17 of offsetting older wells that did not deplete the
18 reservoir in its local area.

19 Q. Are there 320-acre spacing units that do not
20 have a second well on the opposite 160?

21 A. Yes, there are. There are several 320-acre
22 tracts that only have one well to them, and we feel
23 that another well is necessary on the adjacent 160 of
24 that 320 tract in order to efficiently drain the
25 reservoir.

1 Q. If there are additional opportunities to
2 improve productivity in the reservoir and ultimately
3 improve ultimate recovery, why was the last well
4 drilled in 1981?

5 A. Okay, with the current proration of 130 MCF
6 per 160, it is uneconomical to drill a well. We have
7 run the economics on it, and we just cannot justify the
8 well. That's why we're here requesting 600 MCF per
9 day.

10 Q. What is the basis for recommending 600 MCF a
11 day for an acreage factor of one?

12 A. Okay, several reasons. First of all, it
13 becomes economical to drill.

14 I guess secondly, in relation to surrounding
15 pools, the Jalmat Pool overlying the Justis (Glorieta)
16 Pool, which is approximately 1500 feet shallower, has a
17 minimum allowable of 600 MCF per day. The economics in
18 those wells are actually better since they are
19 shallower.

20 Q. Has use of 600 MCF a day in the Jalmat Pool
21 achieved its objective --

22 A. Yes.

23 Q. -- of encouraging additional exploration and
24 development?

25 A. Yes, it has. Back in the miscellaneous

1 section, page 27, I show how drilling has increased
2 through 1989, 1990 and 1991, since the minimum
3 allowable of 600 MCF per day had been set.

4 As you can see, before that there was very
5 little activity. It really became active in 1990, with
6 57 wells drilled. And currently, the last proration
7 schedule that came out, the minimum allowable in the
8 Jalmat Pool actually self-adjusted itself up to 817 MCF
9 per day due to the production of that pool.

10 Q. The simple fact of establishing a minimum
11 allowable in the Jalmat Pool has resulted in
12 substantial new development of that pool, including
13 increasing ultimate recoveries?

14 A. Correct.

15 Q. And that's what you're trying to do in the
16 Justis?

17 A. Correct, that is our main goal here in the
18 Justis (Glorieta).

19 As you can see from my status report on page
20 10, the field has been highly neglected. We are not
21 looking to raise the allowable so we can increase
22 production rates of the existing wells per se. It is
23 strictly for the development of the field. We cannot
24 justify workovers, and we cannot justify drilled wells
25 in this field at the current allowable.

1 And we are -- The reason we're asking for a
2 three-year period is, we temporarily have a six-month
3 period right now, we do drill a well, and for some
4 reason it is not extended, the economics of the well --
5 it will become an uneconomical well.

6 Q. Let me have you turn now to page 11 and give
7 us a summary of the items that you have concluded
8 justify a minimum allowable.

9 A. Okay, the first justification there is that
10 the remaining -- Currently and for the life remaining
11 of the pool, the total deliverability of the wells in
12 the pool is not expected to exceed market demand for
13 the produced gas from that pool.

14 Item number 2 -- Well, I'd like to also say
15 that the proration was originally instituted in 1954
16 because the capacity exceeded the demand. That
17 situation is no longer valid.

18 Item number 2, since the institution of
19 prorationing there has been substantial changes in the
20 pool production, development, gas purchasing, marketing
21 practices and other factors affecting the oil and gas
22 industry which make prorationing of the pool
23 unnecessary.

24 Item 3, Production limitations imposed by the
25 prorated allowables has discouraged and will continue

1 to discourage further developmental drilling, workovers
2 and compression projects. And that's probably the most
3 important.

4 Number 4, Infill drilling alone is
5 anticipated to add 14 BCFG of gas reserves which would
6 otherwise not be recovered. And I'll go into that in a
7 little more detail.

8 Increasing the prorated gas allowable will
9 not impair correlative rights.

10 Meridian has contacted all seven operators in
11 the pool concerning this matter and is not aware of any
12 opposition to this Application. And that I also will
13 go into a little further in just a minute.

14 The State of New Mexico approved Meridian's
15 request for an adjustment of 81 million cubic feet per
16 month during the October, 1992, through March, 1993,
17 proration schedule, resulting in a monthly acreage
18 allocation factor of 18,205 MCF per month.

19 The current prorated gas allowable for the
20 overlying Jalmat Pool is currently 817 MCF per day per
21 160 acres. It is actually 1500 feet shallower.

22 Sid Richardson has advised Meridian that the
23 proposed increase in pool production will not adversely
24 affect any well in the pool. And that I'll go into in
25 a little more detail.

1 Q. Let's go back to the specific issue, and that
2 is the economic justification --

3 A. Okay.

4 Q. -- for a minimum allowable and have you give
5 us an example, starting with page 12, of how you've
6 analyzed and come to your ultimate conclusion on that
7 issue.

8 A. Okay, on page 12 are all of our assumptions
9 for our economic case, showing our working interest, a
10 net revenue interest of 100 percent and 87.5 percent
11 respectively, estimated reserves of 650 million cubic
12 feet of gas -- and how I came to that we'll go into in
13 a little more detail -- completed costs, \$339,900,
14 initial gas price of \$1.41 per MMBTU, based on the last
15 12 month-average and held constant, operating cost,
16 \$1500 per month, escalated five percent.

17 I detail how we schedule out the taxes and
18 the depreciation.

19 The case number 1, which is the as-is case of
20 -- or I shouldn't say "as-is" since we have the
21 temporary adjustment, but in the prior case of 130 MCF
22 per day the well is uneconomical.

23 Case 5, which the initial rate is 600 MCF per
24 day, which is what we are proposing, results in a rate
25 of return of 26 percent and a payout of three years.

1 On page 13 I show a graph illustrating the
2 rate of return versus initial rate, and as you can see,
3 it takes an initial rate of 300 MCF per day just to
4 break even.

5 Page 14 goes into how we estimated reserves
6 for infill drilling.

7 Q. You have an actual example in the pool of an
8 infill well that was drilled, and you have data from
9 that to show its relationship to the original well in
10 that proration unit?

11 A. Correct.

12 Q. Is that what we're seeing with Exhibit 14?

13 A. Correct, that's what is on page 14. The
14 existing wellbore was the Eaton B 1 WN Number 1. Its
15 cumulative production is 6.9 BCF with a last production
16 February, 1990.

17 I show on the following page its production
18 plot with, on page 16 after that, it shows a P-over-Z
19 plot.

20 In the upper right-hand corner you can see
21 the EUR of 7.1 BCF. On the production plot in the
22 upper right-hand corner you can see the EUR is 6.9 or
23 roughly about 7 BCF also. So you can see the well
24 essentially drained its area.

25 Q. It was fully depleted?

1 A. It was fully depleted.

2 Q. Okay. Then what happened?

3 A. Then in 1982 the Justis BC Federal Com Number
4 2 was drilled, offsetting this, and to date its
5 cumulative production is 622 million cubic feet with an
6 estimated EUR of 1.18 BCF. I do show its production
7 plot on page 17.

8 Q. What's your point?

9 A. My point is, the Eaton B 1 WN Number 1 did
10 not drain a 320-acre area.

11 Q. And that the infill well has substantial
12 capacity to further produce additional gas from the
13 pool?

14 A. Correct, that would otherwise not be
15 recovered.

16 Q. Have you taken that information and analyzed
17 it to determine what the anticipated future recovery
18 can be for the reservoir if an infill program is
19 adopted and justified by a minimum gas allowable?

20 A. Yes, we did. I show at the bottom of page 14
21 that the offset well drained -- or recovered 17 percent
22 of the ultimate recovery of the existing wellbore.

23 We applied that on page 18, based on a 17-
24 percent recovery of offset reserves. The average EUR
25 per well in the Justis (Glorieta) Pool is 3.8 BCF.

1 Anticipated offset recovery therefore is 17 percent of
2 that or 650 million cubic feet.

3 The total estimated pool EUR is 84.4 BCF. If
4 you apply a 17 percent additional recovery due to
5 additional infill drilling, you're looking at
6 increasing the ultimate recovery of that pool by 14.3
7 BCF.

8 The total estimated pool EUR I show on page
9 19, the following plot. As you can see, up through --
10 between 1990 and 1995 is where I started the initial
11 projection, and it is the straight, exponential line
12 coming actually from a few -- it is a projection off
13 the current production.

14 How I came up with that projection is, I made
15 a projection on every individual well, and I summed
16 those up on our program. And so therefore, that
17 projection is a culmination of all the projections of
18 every individual well. And you can see it really falls
19 right in line with the current production and looks
20 reasonable.

21 Q. Is that a standard engineering practice in
22 order to arrive at a way to forecast the ultimate
23 recovery from existing wells?

24 A. Yes, it is. We find that more accurate, to
25 make projections on the individual wells and sum those,

1 total those projections, rather than make a projection
2 on a pool total.

3 Q. Identify for us what is the next series of
4 displays in the exhibit book, from pages 20 through 26.

5 A. Okay, page 20 is the AFE for the well,
6 itemizing the drilling, completion and construction-of-
7 facility costs, and that totals \$339,900. That is an
8 itemized AFE for the economic case.

9 Page 21 is simply a drilling well cost
10 estimate, which was part of the AFE.

11 Page 22 is a well cost estimate for
12 completing the well.

13 And page 23 is a facilities cost estimate.

14 Page 24 is also a facilities cost estimate.
15 One is for the panel and the pumping unit; that is page
16 23. 24 is for all the separation facilities at the
17 surface.

18 Page 25, I just provided this. This is off
19 our computer system. This is the actual prices that
20 we've received for the gas in the area on an MMBTU
21 basis, illustrating that it averaged \$1.41 for the last
22 12 months, actually down 11 percent from the prior
23 year.

24 And page 26 is just a continuation of that.

25 Q. You told us you have currently 12 producing

1 wells --

2 A. Right.

3 Q. -- with seven different operators?

4 A. Correct.

5 Q. You identified a Sid Richardson as one of the
6 transporters?

7 A. Correct.

8 Q. Are there any other transporters of gas in
9 the pool?

10 A. The only -- I just know of Texaco, handles
11 their own gas. I believe they transport it and they
12 process their own gas.

13 Q. Have you found any limitations on the ability
14 to gather and process the gas if a minimum gas
15 allowable of 600 MCF a day is applied to the pool?

16 A. No, I do not.

17 On page 28 I have a letter from Mike
18 Wilkinson, who is in our gas marketing group, stating
19 the demand for gas in the area.

20 On page 29 is a continuation of that letter.
21 At the top of page 29 he states that Sid Richardson's
22 Jal plant has excess capacity of 35 million cubic feet
23 per day. Texaco's Eunice plant has an excess capacity
24 of 40 million a day. So there certainly is demand in
25 the area for gas.

1 Q. Has Meridian also contacted Sid Richardson
2 Company to determine what their position was concerning
3 this Application?

4 A. Yes, we have, and we have responses from them
5 in letter form on page 30 and 31, both stating -- page
6 30, it states, "At your request, I have reviewed the
7 attached list of leases...I have determined that all
8 the production is currently under gas purchase
9 agreements with Richardson except for the two
10 Texaco..." wells. Richardson states that they would
11 have the capacity and would be willing to purchase any
12 additional production from these leases, should more be
13 available.

14 The response from them on page 31 is a prior
15 response when we requested whether -- that they provide
16 to us in letter form that they would be able to handle
17 any additional gas from the pool.

18 Q. In addition to the transporters, have you
19 received any waivers of objection from other operators
20 of wells that produce gas from the pool?

21 A. Yes, we have. We have sent notifications to
22 all the operators.

23 We have received a waiver stating no
24 objection to our proposal from Earl R. Bruno, from
25 Lanexco, from Arco and from Texaco.

1 We did not receive any response from Amerada
2 Hess or Chevron, and they did not indicate that they
3 would object to our proposal.

4 Q. Summarize for us the remaining gas volumes in
5 terms of the remaining ultimate recovery of gas from
6 the reservoir. I believe you've described 20.6 BCF as
7 the total remaining gas opportunity in the pool.

8 If you take into consideration the remaining
9 ultimate recovery from existing wells --

10 A. Uh-huh.

11 Q. -- add together the analysis of the
12 additional gas to recover from an infill program, what
13 number do you get?

14 A. Okay, I believe you are correct. I believe it
15 was -- You are looking at a remaining -- from the pool
16 itself of 6.6 BCF. We're looking at adding an
17 additional 14 BCF due to infill drilling, would give
18 you a total of 20.6 BCF, roughly.

19 Q. Under this plan with a minimum gas allowable,
20 are there wells that would be classified nonmarginal,
21 that would still be subject to some allowable
22 curtailment and would therefore not be able to produce
23 at their capacity?

24 A. Yes, there are currently five nonmarginal
25 wells. Meridian operates two of those wells.

1 Since we have had the temporary increase to
2 600 MCF per day, we have opened our wells up
3 additionally. It is hard to say right now, because we
4 have had a few production problems, whether those will
5 be prorated or constricted at all.

6 But we do feel there are several wells
7 existing in the pool, namely one that Chevron operates,
8 that we feel will certainly be prorated at the 600 MCF
9 per day allowable that we're asking for. We certainly
10 feel the drill wells will be.

11 But I guess our main point is, we need that
12 for the economics of the drill well, specifically.

13 Q. So at this point we're not seeking to
14 terminate prorationing in the pool. There are some
15 elements of your discussion that could apply to that
16 issue --

17 A. Correct.

18 Q. -- but what you're looking at is a minimum
19 gas allowable?

20 A. Correct.

21 Q. No limitations either gathering or processing
22 or marketing and selling the additional gas?

23 A. No. As we mentioned earlier, we talked to
24 Sid Richardson. Sid Richardson by letter has indicated
25 to us that they have no problem marketing the gas. Our

1 marketing department has provided a letter stating the
2 same.

3 And Sid Richardson also mentions, I believe,
4 in one of these letters, that the additional gas will
5 not adversely affect any marginal well in the pool. It
6 will not increase line pressure in their system.

7 Q. Describe for us what is contained in the
8 exhibit book behind the tab that says Production Plots.

9 A. Okay, these are current production plots, as
10 current as *Dwight's Production Data* is updated, which I
11 believe is through the fifth or seventh month of this
12 year.

13 This -- All these plots are simple individual
14 plots of all the wells in the field, including the one
15 well that's in the -- actually listed in the North
16 Justis field, which I actually feel is -- or you can
17 see is on the same structure.

18 Q. Tell us again the basis for a three-year
19 temporary minimum gas allowable.

20 A. Okay, our basis for the three-year allowable,
21 we originally, I believe, back in August, requested an
22 adjustment to obtain the 600 MCF per day allowable.
23 That will only last six months.

24 We are just concerned a little bit, in a way,
25 that if we drill a well and for some reason do not get

1 an extension of that adjustment and go back to the 130
2 MCF per day allowable, the well will become
3 uneconomical as a project.

4 We would like to have the three-year minimum
5 allowable set so we can feel good about going out and
6 drilling the infill wells.

7 Q. That's tied back into your page 12 which
8 shows your case 5 payout of three years?

9 A. Correct.

10 Q. So that if you make this investment for the
11 infill well, at least within a three-year period you'll
12 have a substantial opportunity to pay out the well?

13 A. Correct.

14 Q. Or at least these initial wells that are
15 started soon under this program?

16 A. Right, and as I've mentioned several times,
17 this is really the basis for asking -- requesting this
18 allowable, is for this additional drilling, and the
19 drilling obviously has to be economical to us.

20 Q. Do you have a recommendation to the Examiner
21 as to what to use for an effective date to make the
22 change?

23 A. Yes, I believe we did decide on December 1st,
24 1992, as an effective date.

25 Q. All right. Anything else, Mr. O'Donnell?

1 A. That is all. I guess the only other thing
2 I'd just like to add is that most likely our drilling
3 will not be initiated until this Order is established,
4 because we would hate to go out there and drill the
5 well and, obviously, not obtain the adjustment, the
6 minimum allowable.

7 MR. KELLAHIN: That concludes my examination
8 of Mr. O'Donnell.

9 We would move the introduction of his Exhibit
10 Number 1.

11 EXAMINER CATANACH: Exhibit Number 1 will be
12 admitted as evidence.

13 EXAMINATION

14 BY EXAMINER CATANACH:

15 Q. Mr. O'Donnell, your estimates of recovery, of
16 additional gas recovery from the pool, are based on all
17 of the 320-acre units being infill drilled?

18 A. Yes, yes.

19 Q. Okay. Do you -- Go ahead.

20 A. Yeah, this is all it's based on. There are
21 locations that, further into our study -- We see right
22 now some indications that some of the wells may have
23 gone off prematurely, maybe due to -- Some of these
24 wells right now are being pumped. Some of the older
25 wells may have gone off prematurely without having

1 pumping units put on them. They may have loaded up
2 early.

3 So they may have some gas remaining, and
4 that's to be established in our study, whether we want
5 to offset some of the wells that have been previously
6 plugged.

7 But that 14 BCF figure is strictly off vacant
8 160-acre tracts.

9 Q. Is there a possibility of going in and
10 working over some of the existing wells?

11 A. Sure, sure. Yeah, we see several cases of
12 that.

13 Q. Do you anticipate anything happening on the
14 nonstandard 160-acre units in the pool?

15 A. On the nonstandard one? If it -- I believe
16 the -- Let me refer to my plat here.

17 The nonstandard proration units have a well
18 existing on them. And as I mentioned, we just need to
19 study it a little further to find out if those -- if we
20 feel those will recover or drain that tract.

21 I don't anticipate -- I think there's one,
22 two, three nonstandard proration units. I don't
23 anticipate drilling on those, but I wouldn't swear to
24 it.

25 I might add also that although the field

1 outline is as shown here, we don't quite know yet
2 whether we can step out even further on the outer
3 limits of this structure.

4 I guess basically we are in the middle of the
5 study right now, and before we -- We really need
6 information off the infill drill wells to really tie
7 down what we are going to be able to recover from
8 infill wells.

9 We have the one instance of the 1982 well.
10 That's all we're basing it on right now. The logs in
11 the area are just old logs. They're 1950-something
12 vintage wells, their logs. And it's real difficult to
13 really estimate reserves in this area.

14 Q. In your justification section on page 13,
15 specifically at a rate of 600 MCF a day, you get over a
16 25-percent rate of return. That's on the infill well,
17 correct?

18 A. Correct.

19 Q. What is acceptable to Meridian as to a rate
20 of return?

21 A. It's difficult to say. We would -- This is a
22 case just to present here at this hearing. The case
23 would be run a little different in-house. We'd
24 obviously have to add our overhead charges to it and so
25 on.

1 On a loaded basis we would like to see a
2 minimum of 15, 20 percent. On an unloaded basis,
3 probably -- You know, this would probably be a minimum
4 25 percent.

5 We requested this 600 MCF per day early in
6 our study and have stuck with it because we feel it
7 will be economic to the -- It will justify an economic
8 well.

9 But it's difficult to answer your question,
10 because I'd have to rerun the case with the load
11 factors and so on that we run in house.

12 Q. Okay. How many nonmarginal wells does
13 Meridian operate?

14 A. We have two marginal wells -- Let me go back
15 to my list here. Meridian operates two nonmarginal
16 wells and one marginal well.

17 And that one marginal well -- You had asked
18 if we had identified anything to do with some of the
19 existing wells. That marginal well, we are currently
20 doing some work on, some plunger-lift work on.

21 As I mentioned earlier, these wells do make a
22 little bit of water. Late in their lives they can
23 easily load up, and that's what we're looking at on
24 that well, that marginal well.

25 Q. Your two nonmarginal wells, you've got

1 current average production of 191 and 179?

2 A. Correct.

3 Q. Is that -- Is that amount because of the fact
4 that it's been at 130 MCF a day, the allowable?

5 A. I believe so. I've tried to -- Since you can
6 overproduce out here during the year and have to catch
7 up and so on, the rates are very erratic, as you can
8 see back in some of the production plots. The rates
9 are very erratic.

10 Plus, to be honest with you, because of the
11 lack of incentive in this area, there is a possibility
12 of negligence on our part, not producing these at the
13 top, top allowable.

14 So I'm not sure which case it is, whether we
15 have -- we overproduced earlier and knocked the rate
16 down. But that is the average rate from April through
17 September.

18 But honestly, this field, this area has been
19 highly neglected by ourselves and all operators, and
20 we're hoping to change that.

21 Q. If that's -- if those two nonmarginal wells,
22 if that production is ballpark, you're really going to
23 have an allowable for the infill well of about a
24 million a day, according to your proposal?

25 A. Okay. These nonmarginal wells, as of right

1 now, are producing over 500 a day.

2 Q. Okay, so they are capable of --

3 A. Oh, yes, yes. Since we got the adjustment in
4 the last proration schedule, we have opened those wells
5 up, and they're each producing over 500 a day.

6 Q. Do you know what the other nonmarginal wells
7 in the pool are capable of?

8 A. I just that one -- I believe the -- there's
9 several -- It's very difficult to tell, because you
10 look at the production plots, and they're up to a
11 million a day for a couple months, and then they're
12 down to practically nothing, and it's very erratic
13 production because of the allowable that's in place.

14 I believe there's one Chevron well -- Both of
15 those are marginal. I believe it must be the Texaco
16 well that certainly can produce in excess of 600 MCF
17 per day.

18 But it's -- You can see indications of it
19 when you go through these production plots. In the
20 last couple years you can see some of the wells have
21 jumped up. The Learcy McBuffington Number 7 by
22 Chevron, back several years ago you could see rates in
23 excess of a million a day.

24 The -- One of our wells, Carlson B Federal
25 Number 1, you can see just a few months ago it was up

1 to about 800 MCF a day, so...

2 We know specifically from -- I can only speak
3 for the wells that we operate. We know we have opened
4 those up. And one of the wells, we are having some
5 problems with production. I think we may have parted
6 tubing -- or parted sucker rods in the well, and
7 they're looking at that. So the production just
8 recently has dropped down.

9 But both of the wells were in excess
10 initially of 600 a day. They are right now about -- in
11 excess of 500 a day. And these are wells that have
12 been on for quite a while, for a number of years.

13 Q. Okay. In your request for the Commission for
14 an increase or for an adjustment to the allowable, did
15 you present the same economic evidence and testimony?

16 A. Yes, yes.

17 Q. And they agreed with you --

18 A. Yes.

19 Q. -- as far as the amount the allowable should
20 be?

21 A. Correct.

22 Q. Okay. You had some information about how
23 minimum allowables has affected the Jalmat Pool.

24 Is Meridian in fact an operator in the Jalmat
25 Pool?

1 A. Yes. What I did hear is, through our
2 computer system, we accessed *Dwight's Data*, and through
3 *Dwight's Data* you can access wells that are drilled in
4 any time frame.

5 And I simply pulled up through that database
6 wells that were drilled in 1986, 1987, 1988, 1989, 1990
7 and 1991, and showed the results right there. And you
8 can certainly see the three-year minimum that was set
9 in that pool has increased development in the pool,
10 will increase the EUR of the pool, and actually the --
11 Due to the production of the pool, it's actually -- the
12 minimum allowable for the pool is up to 817 through
13 this last proration schedule.

14 EXAMINATION

15 BY MR. STOVALL:

16 Q. You mean the actual allowable as set by the
17 system, as opposed --

18 A. Yes.

19 Q. -- to the minimum, right?

20 A. If you overproduce the wells, it self-adjusts
21 the minimum allowable, and obviously the pool has been
22 overproducing the 600.

23 Q. I haven't asked you, in other words, the
24 minimum is still set at 600, according to the Order
25 that set it?

1 A. Correct.

2 Q. But the allowable for an acreage factor of
3 one is now 800-and-some number that you gave?

4 A. Correct.

5 Q. Now, do you know from the previous hearings
6 -- and I guess we can look at the Order that you've
7 included here -- that that higher allowable is based
8 upon actual production and not by adjustments made by
9 the Commission; is that correct?

10 A. Correct.

11 Q. Okay.

12 A. I -- that's --

13 Q. It's not like this case where you came in and
14 asked for an adjustment?

15 A. No. No, it is not.

16 Q. Those cases, it actually worked itself up to
17 that?

18 A. Exactly.

19 Q. Okay. A couple other questions, while I'm at
20 it here. Just for your information, we've had some
21 discussion about the more aggressive use of minimum
22 allowables --

23 A. Uh-huh.

24 Q. -- in pools for -- a variety of different
25 pools for basically this reason.

1 Originally, you filed an application to de-
2 prorate the pool, and I assume -- Do you know why you
3 changed it to request a minimum allowable?

4 A. Okay, when we looked at lifting proration
5 from the pool, we felt it would be simpler to do this
6 than to lift the prorationing from the pool.

7 To lift the prorationing from the pool --

8 Q. One of the effects of that would be to knock
9 out the infill drilling possibility; is that not
10 correct?

11 MR. TOM OLLE: That was a big factor, was the
12 infill drilling, when you couldn't drill a second
13 well --

14 THE WITNESS: Right, that's what I was going
15 to --

16 MR. STOVALL: Wait, let's just get your name
17 on the record, even though we haven't sworn you, just
18 since you're making comments.

19 MR. OLLE: Okay, it's Tom Olle.

20 MR. STOVALL: Okay. And you're with
21 Meridian; is that right?

22 MR. OLLE: I'm the reservoir engineering
23 supervisor for Meridian in Midland.

24 We looked at the effects of being able --

25 MR. STOVALL: Well, let's stop there, and I

1 think we can --

2 MR. KELLAHIN: The issue was without
3 prorationing, we were under the statewide memorandum
4 that we couldn't have a second well on a 320 gas unit,
5 and it killed our infill program.

6 THE WITNESS: Right, we couldn't
7 simultaneously dedicate on a nonprorated. So it really
8 complicated the issue.

9 Other than the fact of having to notify
10 everybody and their brother as far as lifting the
11 proration, then it created another problem of not being
12 able to drill a second well on a proration unit.

13 Q. (By Mr. Stovall) Yeah, and --

14 A. -- on a standard --

15 Q. -- that's what I'm more concerned about. The
16 procedural thing, I think, is not, in terms of building
17 an additional record for looking other pools.

18 Maintaining proration with a reasonable
19 minimum then allows you to do development work that you
20 might not do if you deprorated it.

21 A. Exactly.

22 Q. Do you have an opinion as to whether, if the
23 allowable is raised -- It essentially becomes 600 per
24 160 acres --

25 A. Correct.

1 Q. -- and you're suggesting there will be a well
2 on every 160?

3 A. Correct.

4 Q. Is that -- What would be the approximate
5 drainage of a well, drainage area of a well at that
6 kind of rate?

7 A. Okay, we feel that a well will effectively
8 drain a 160.

9 Q. Will it drain more than that, would be my
10 question?

11 A. Will it drain more than that? Is that
12 what --

13 Q. Yes.

14 A. We showed right in the offset well, that 1982
15 well, that it offset a well relatively close to it. It
16 appeared to be depleted, and that additional well will
17 drain approximately 1.2 BCF.

18 Q. So in other words, it's your opinion that if
19 you just left -- if the allowable just stayed no lower
20 than 600, that it wouldn't have an adverse effect on
21 offsetting units, wouldn't impair correlative rights?

22 A. If it -- Could you ask that again? I'm
23 sorry.

24 Q. In other words, if you -- Let's say we just
25 set a minimum and it stayed at 600 over an extended

1 period of time.

2 A. Correct.

3 Q. Am I hearing you correctly that you would not
4 see an adverse impact on offsetting units?

5 A. Right, correct.

6 Q. And would it also be your opinion that in
7 fact, if the allowable stayed at 600, it may be
8 advantageous in terms of protecting correlative rights
9 because then the offset would have an incentive to
10 drill and protect?

11 A. Correct. We -- I feel, from what I've seen
12 through study in this field, a well -- I don't feel a
13 well can drain any more than 160.

14 Q. Okay. If -- Part of your discussion
15 indicated, you know, you were -- You stated in response
16 to Mr. Kellahin that if in fact this minimum were
17 established, that there would still be some nonmarginal
18 proration units in the field, based upon existing
19 wells?

20 A. Yes, that's my feeling, based upon production
21 plots that I see, that I see rates within the last year
22 in excess of 600 MCF per day.

23 So I think that of the five -- I believe it
24 is five nonmarginal wells. I feel several of them will
25 still be restricted, and I certainly hope that the

1 drill wells will be restricted.

2 But I guess that's what I was getting at
3 several times, is this 600 MCF per day really is
4 necessary to justify infill drilling.

5 Q. Taking that just one step and looking some
6 time down the road, I mean, we're looking at
7 essentially a depleted reservoir or largely depleted
8 reservoir?

9 A. Uh-huh.

10 Q. If an allowable were, say, just left at, in
11 this case, a minimum of 600 --

12 A. Uh-huh.

13 Q. -- for an acreage factor, and eventually the
14 wells, whatever wells that were in the field came below
15 that level, would it really matter if they all in fact
16 became marginal at that point, if they're not draining
17 more than 160 acres to begin with?

18 A. No.

19 Q. So that you could -- This would give you the
20 incentive, then, to go drill wells --

21 A. Exactly.

22 Q. -- operate them at an economic level --

23 A. Right.

24 Q. -- and then this is as they fell below that
25 level as proration units, there would really be no

1 adverse effect on the reservoir, would there?

2 A. Correct, correct.

3 Q. Okay, you've asked for an effective date of
4 December 1st. Why not go for April 1st at the end of
5 the current proration period and go three years from
6 that? Get yourself a little extra time?

7 A. We discussed that -- Right, we discussed that
8 yesterday. I guess our only concern is, if the Order
9 actually came out in the same amount of time, that
10 would be fine. I feel that would be fine with myself.

11 We would like to see the Order come out and
12 like to feel that we have certainly set the three-year
13 allowable before we actually go out and drill.

14 Q. Oh, I'm not suggesting the Order wouldn't
15 come out till then; I'm suggesting the Order would
16 contain an effective date.

17 A. I wouldn't see a problem with that.

18 MR. STOVALL: That was your reservation about
19 requesting that date, is, you were afraid we would hold
20 on to the Order until then; is that right?

21 Okay. I don't have any other questions.

22 EXAMINER CATANACH: I don't either.

23 MR. KELLAHIN: That concludes our
24 presentation.

25 EXAMINER CATANACH: All right, there being

1 nothing further, Case 10,555 will be taken under
2 advisement.

3 (Thereupon, these proceedings were concluded
4 at 10:37 a.m.)

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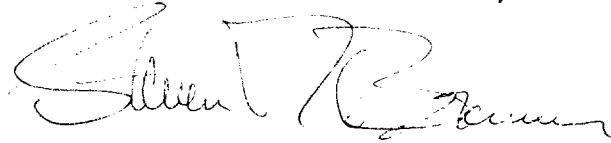
CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL November 16th, 1992.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1994

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10555 heard by me on November 5 1992.

 , Examiner
Oil Conservation Division