

CASE NO. EL PASO NATURAL GAS COMPANY
FOR DOWNHOLE COMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO

Case No.

6955

Application

Transcripts

Small Exhibits

ETC



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

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SANTA FE, NEW MEXICO 87501
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Mr. Dave Burleson, Attorney
El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79973

Re: CASE NO. 6955
ORDER NO. R-6423

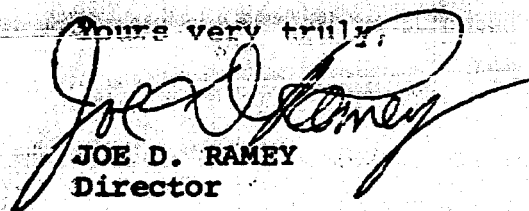
Applicant:

~~El Paso Natural Gas Company~~

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6955
Order No. R-6423

APPLICATION OF EL PASO NATURAL
GAS COMPANY FOR DOWNHOLE COMMINGLING,
RIO ARriba COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 9, 1980,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 5th day of August, 1980, the Division
Director, having considered the testimony, the record, and
the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicant, El Paso Natural Gas Company, is
the owner and operator of the San Juan 27-5 Unit Well No. 42,
located in Unit M of Section 22, Township 27 North, Range 5
West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle
Tapacito-Pictured Cliffs and Blanco Mesaverde production
within the wellbore of the above-described well.

(4) That from the Tapacito-Pictured Cliffs zone, the
subject well is capable of low marginal production only.

(5) That from the Blanco Mesaverde zone, the subject
well is capable of low marginal production only.

(6) That the proposed commingling may result in the recovery
of additional hydrocarbons from each of the subject pools,
thereby preventing waste, and will not violate correlative
rights.

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Case No. 6955
Order No. R-6423

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That the allocation of future production to each of the commingled zones should be made on the basis of remaining reserves attributable to each of said zones.

(10) That in accordance with such remaining reserves, 54 percent of the commingled production should be allocated to the Tapacito-Pictured Cliffs zone, and 46 percent of the commingled production to the Blanco Mesaverde zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, El Paso Natural Gas Company, is hereby authorized to commingle Tapacito-Pictured Cliffs and Blanco Mesaverde production within the wellbore of the San Juan 27-5 Unit Well No. 42, located in Unit M of Section 22, Township 27 North, Range 5 West, NNPM, Rio Arriba County, New Mexico.

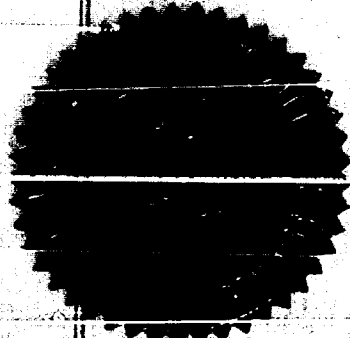
(2) That 54 percent of the commingled production shall be allocated to the Tapacito-Pictured Cliffs zone and 46 percent of the commingled production shall be allocated to the Blanco Mesaverde zone.

(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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Case No. 6955
Order No. R-6423

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY,
Director

S E A L

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
9 July 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company for downhole commingling,
Rio Arriba County, New Mexico. CASE 6955

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
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For the Applicant:

David T. Burleson, Esq.
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I N D E X

PAUL BURCHELL

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E X H I B I T S

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1 MR. NUTTER: Call next Case Number 6955.

2 MR. PADILLA: Application of El Paso

3 Natural Gas Company for downhole commingling, Rio Arriba
4 County, New Mexico.

5 MR. BURLESON: David T. Burleson for El
6 Paso Natural Gas Company, associated with Montgomery and
7 Andrews Law Firm.

8
9 (Witness sworn.)

10
11 PAUL BURCHELL

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

14
15 DIRECT EXAMINATION

16 BY MR. BURLESON:

17 Q Would you please give your name and where
18 you reside for the record?

19 A My name is Paul W. Burchell and I reside
20 in El Paso, Texas.

21 Q By whom are you employed and in what
22 capacity?

23 A I'm employed by the El Paso Natural Gas
24 Company as a Senior Proration Engineer.

25 Q As a proration engineer have you previously

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1 testified before the Division, or one of its Examiners?

2 A Yes, I have.

3 Q Were your qualifications accepted on those
4 occasions?

5 A Yes, they were.

6 Q Mr. Burchell, are you familiar with Case
7 6955, the El Paso application here before us?

8 A 6955 is today's case and I am familiar
9 with it.

10 Q Would you please describe what El Paso
11 is seeking?

12 A First of all, Mr. Examiner, am I qualified?
13 MR. NUTTER: Yes, you're qualified, go
14 ahead.

15 A Thank you, very much.

16 We are seeking permission to downhole
17 commingle gas of both the Blanco-Mesaverde Gas Pool and gas
18 of the Tapicito-Pictured Cliffs Gas Pool, and we would like
19 to produce this gas through one meter in the San Juan 27-5
20 Unit, Well No. 42.

21 Now this well is located in Unit M of
22 Section 22, Township 27 North, Range 5 West, Rio Arriba
23 County, New Mexico.

24 This well presently produces from both
25 of these zones, or formations, as a dual completion. El Paso

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1 proposes that the allocation of gas to each formation will be
2 divided in a certain manner that I will explain later on in
3 my testimony.

4 Q Has a leak been determined to exist in
5 this well between the two zones?

6 A Yes. The 1979 annual packer leakage
7 test indicated communication between these two zones in the
8 dually completed well.

9 Q Has any determination been made as to
10 where that leak exists, leak or leaks, I should say?

11 A Yes. A temperature survey was run and it
12 showed that there were three possible leaks on the Mesaverde
13 side of the well.

14 Q Why is El Paso asking to downhole com-
15 mingle in this well?

16 A Well, basically El Paso would like to
17 undertake commingling due to the very low productivity of
18 both these zones and also because of the economics, the high
19 cost of repairing the suspected leaks would be very expensive.

20 Q Do you have an exhibit which indicates
21 the present equipment in the well?

22 A Yes, I have.

23 Q Would you please explain the exhibit,
24 please?

25 A It is a diagrammatic sketch of the equip-

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1 ment which has been marked as El Paso's Exhibit Number One.

2 The exhibit shows that there are two
3 strings of tubing installed in the San Juan 27-5 No. 42 Well.
4 It also shows that a Guiberson "AG" production packer is set
5 at 5197. The well was perforated from 3296 feet to 3366
6 feet -- that's gross perforations -- in the Pictured Cliffs
7 Pool above the packer, and the Mesaverde Pool is perforated
8 from 5426 feet to 5546 feet below the packer.

9 The Pictured Cliffs side of the well pro-
10 duces through a 1-1/4 inch tubing and it is set at 3386 feet,
11 while the Mesaverde is produced through a 2-3/8ths inch
12 tubing and it is set at 5480 feet.

13 Now, Mr. Examiner, on the exhibit I show
14 on the lefthand side of the graph where the possible leaks
15 were indicated by the temperature survey and they were at 255
16 feet, and there was another one at, a possible leak, at 3350
17 feet, and there was a third possible leak at 4500 feet, and
18 these were all on the Mesaverde side of the well.

19 Q Do you have an exhibit which indicates
20 the production history of the well?

21 A Yes, I have.

22 Q Would you please refer to that exhibit,
23 please, which is marked El Paso Exhibit Number Two and ex-
24 plain what that exhibit shows?

25 A This is El Paso Natural Gas Company's

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1 exhibit and it is marked Number Two, and it shows the Tapacito
2 Pictured Cliffs and the Blanco-Mesaverde formations gas pro-
3 duction performance since 1970.

4 On the graph, Mr. Examiner, I have on the
5 lefthand side plotted the gas production and the yearly daily
6 average at Mcf volumes, and on the bottom of the graph shows
7 the years.

8 The dashed curve is the Blanco-Mesaverde
9 side of the well and the solid curve is the Tapacito-Pictured
10 Cliffs side of the well.

11 Now, as can be observed from the Exhibit
12 Number Two, both sides of the well were declining in a normal
13 manner until the year 1978, and sometime during 1978 it was,
14 I believe, at the end of August, a packer leakage test was
15 taken, and that packer leakage test was a positive test. It
16 showed that the zones were not in communication.

17 But then sometime during 1978 and after
18 August the well apparently, because of the characteristics
19 of production changing sides of the well, it started to com-
20 municate.

21 Then during 1979, of course, that packer
22 leakage test showed that there was communication.

23 Now, I'd like to point out that for the
24 eight months prior to the positive packer leakage test the
25 Pictured Cliffs side was producing an average of 42 Mcf of gas

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1 per day and the Mesaverde was making only 31 Mcf of gas per
2 day. This represents a total amount of 73 Mcf per day with
3 50 percent of the well's production coming from the Mesaverde
4 and 43 percent from the Pictured Cliffs.

5 Q Mr. Burchell, referring to the bottom of
6 the graph, which indicates the years, the point that's shown
7 above each year represents a point determined by the total
8 production for that year.

9 A Yeah, for all twelve months, right.

10 Q So this change in production resulting
11 from the packer leak would therefor be reflected in 1978's
12 production and that's why you --

13 A That's like --

14 Q -- get one of the zones, the Blanco-Mesa-
15 verde going up at that --

16 A Right.

17 Q -- at that time.

18 A Right. Like I said, it was some time
19 after the test was taken. It was a positive test; there was
20 no leaking at the end of August, so some time thereafter, from
21 September of 1978 up to December 31st of '78, the well
22 started to communicate.

23 Q What conclusions -- are there any other
24 conclusions that you draw from looking at this -- at this
25 exhibit?

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1 A Yes, I do. In my opinion, the flow rates
2 for both the Pictured Cliffs and the Mesaverde are very small.
3 Both the Mesaverde and the Pictured Cliffs zones in the Unit
4 No. 42 Well are classified as exempt marginal.

5 Q Do you have any information regarding
6 pressure and fluid characteristics in this well?

7 A The well produces no water and it does
8 produce a little condensate in an amount and I could best de-
9 scribe it as too small to measure.

10 And that condensate, there is a small
11 amount from both zones.

12 Now, with regard to pressures, based on
13 extrapolation of state tests, the Pictured Cliffs side of the
14 well had a shut-in tubing pressure of 420 pounds per square
15 inch absolute, and this is as of January the 1st, 1980. The
16 corresponding bottom hole pressure is estimated to be 454
17 psia.

18 Now, also based on extrapolation of state
19 tests, the Mesaverde shut-in tubing pressure was 480 pounds
20 per square inch absolute, with a corresponding bottom hole
21 pressure at 547 psia.

22 Q Would you believe that the small amount
23 of fluid which this well produces from each of the zones, as
24 well as the pressure characteristics of both zones be compa-
25 tible should downhole commingling be permitted?

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1 A Yes, sir, because of the small pressure
2 differential and the presence of little or no liquids, I do
3 not believe that there would be any migration from one forma-
4 tion to the other. Now, this is particularly true if the
5 well is continually produced.

6 Now the ratio of the bottom hole pressure
7 is 1.2 to 1.

8 Q What advantages would there be in com-
9 mingling the two zones, Mr. Burchell?

10 A Well, there are really two main advantages.
11 First it is believed that by commingling this small volume of
12 gas, and which I indicated earlier was 73 Mcf of gas per day,
13 total, neither formation would have to be permanently aban-
14 doned, and it is estimated that the Mesaverde has around 526
15 MMCF of gas remaining reserves and the Pictured Cliffs has
16 around 600 MMCF of remaining reserves, and these reserves can
17 be recovered through commingling.

18 Now, besides efficiency in production,
19 the second advantage of commingling is, of course, the econ-
20 omics and it's the savings of rather than conducting remedial
21 action on the well.

22 Now, to repair and dually complete the
23 existing well would cost around \$45,760; however, it will
24 only cost about \$36,830 to downhole commingle the Mesaverde
25 with the Pictured Cliffs.

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1 Now, it should be noted that even if El
2 Paso were to spend the money to repair the well, there is no
3 guarantee that it wouldn't start leaking immediately after
4 completion of the work.

5 Q If Division approval is granted to com-
6 mingle, do you have in mind a formula that would be utilized
7 in allocating production between the two zones?

8 A Yes. Based on my prior testimony related
9 to the average daily production of gas, and this is for the
10 eight months of January through August of 1978, these are the
11 months just prior to the last positive packer leakage test,
12 it is recommended that 43 percent of the well's gas production
13 be attributed to the Blanco-Mesaverde Pool and 57 percent to
14 the Tapacito-Pictured Cliffs Pool.

15 Q Now those were the percentages which the
16 well had produced for those immediately --

17 A Right.

18 Q -- preceeding eight months?

19 A Right, Right.

20 Q Would you please tell us the nature of
21 ownership of production from the two wells? I'm sorry, the
22 two zones within a well?

23 A Yes. The Pictured Cliffs production be-
24 longs to the owners of the 18,566-acre Pictured Cliffs parti-
cipating area, and the Mesaverde production belongs to the

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1 owners of the 20,804-acre Mesaverde participating area of the
2 San Juan 27-5 Unit.

3 There are 45 working interest owners.
4 There are 26 royalty owners, and there are 49 overriding
5 royalty owners.

6 Q Do you have an exhibit which more particu-
7 larly sets forth the ownership?

8 A Yes, and it is marked as El Paso Natural
9 Gas Company Exhibit Number Three. Said owners and their per-
10 centages of interest owned are set on the schedule.

11 Now, the schedule is shown on three pages.
12 The first part shows the working interest; down in the middle
13 it shows royalty interest; and on the bottom it shows the
14 overriding royalty interest.

15 The royalty interest is broken out into
16 different people and that is shown or is marked on the exhibit
17 as Schedule One, or page two, and the overriding royalty in-
18 terests are shown on page three of this schedule, and it's
19 marked Schedule Two.

20 The asterisk signs by the various people
21 or companies are where they have approved of the commingling,
22 and all the other persons have not responded to our request
23 for approval.

24 Now except for the case which I will later
25 mention, the same parties who own the production from the Mes-

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1 verde, they also own production from the Pictured Cliffs;
2 however their interests are slightly different.

3 The parties who have not responded to the
4 commingling, the greatest difference in any such party in-
5 terest in production from the two formations is that of Thomas
6 and Nancy Herrington, whose working interest in the Pictured
7 Cliffs is 5.53 percent and in the Mesaverde it is 4.95 per-
8 cent.

9 The only exception to my statement that
10 the same parties who own interest in production from the Mesa-
11 verde also own interest in production from the Pictured Cliffs
12 is that of the eight royalty owners of the tract covering the
13 northeast quarter of the northeast quarter of Section 3 as
14 a group own .03 percent royalty on production from the Mesa-
15 verde and they own no royalty on production from the Pictured
16 Cliffs; however, if the east half of Section 3 is brought
17 into the participating Pictured Cliffs area by the completion
18 of a well currently being worked on, which is the NO. 21-A,
19 and the last information on that well is that it has tested
20 commercially from both the Mesaverde and the Pictured Cliffs
21 zones, in commercial quantities, and will be dually completed
22 then these parties that I have mentioned will also have a .03
23 percent royalty in production from the Pictured Cliffs, as
24 well.

25 Q Have all owners been contacted for their

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1 approval to downhole commingle and to allocate production as
2 you're proposing in this -- in this hearing?

3 A Yes, they have, and this was done by a
4 letter that was sent out to them on November the 21st, 1979.

5 Q What response to date has there been to
6 this letter?

7 A Those who have responded and approved of
8 the project are shown on all schedules with an asterisk.

9 Of the 45 working interest owners 21, who
10 together own more than 90 percent of the PC and the Mesaverde
11 participating area, they have approved.

12 Of the 26 non-government royalty owners,
13 5 have approved. The State, which owns -- the State of New
14 Mexico, which owns 1.29 percent of the PC and 1.54 percent
15 of the Mesaverde, has approved of the commingling.

16 And the USA, or the government, which
17 owns 10.10 percent of the PC and 10 percent of the Mesaverde,
18 has not responded.

19 Of the 49 overriding royalty owners, 24
20 have approved. The remainder simply did not respond; however,
21 they were advised of the time and the place of this hearing
22 by letter.

23 Q Were any objections otherwise communicated
24 to El Paso to what is proposed here?

25 A No, in all the communications to and from

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1 there was nobody that did object to the actual commingling.

2 Q In your opinion would the granting of
3 this application protect correlative rights and prevent waste?

4 A Yes, sir.

5 Q Do you have anything further to present
6 in this case?

7 A No, I do not.

8 Q Were Exhibits One, Two, and Three prepared
9 by you or under your supervision?

10 A Yes, they were.

11 MR. BURLESON: At this time I would ask
12 that Exhibits One, Two, and Three be admitted into evidence.

13 MR. NUTTER: El Paso's Exhibits One
14 through Three will be entered in evidence.

15
16 CROSS EXAMINATION

17 BY MR. NUTTER:

18 Q Mr. Burchell, you suggested a 57-43 per-
19 cent allocation based on eight months production in 1978?

20 A Yes, sir.

21 Q How does that 57-43 compare with these
22 estimated reserves? Of 526-600?

23 A It's pretty close. Let's see, the -- if
24 I work those percentages out here. It was the McQuay
25 has around 526 MMCF of remaining gas reserves and that is

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1 46 percent, as compared to the production which I recommended,
2 43 percent.

3 Q And so obviously 54 percent of the re-
4 serves would be Pictured Cliffs, then.

5 A And the 54 percent was Pictured Cliffs,
6 and I recommended based on production, 57 percent.

7 Q Don't you think actually the reserve com-
8 putation would be more -- what did you do to obtain these re-
9 serves?

10 A These reserves were obtained in the nor-
11 mal fashion based on extrapolation of the past State
12 tests versus the production.

13 Q Pressure decline curves --

14 A Right, yes, sir.

15 Q -- cumulative production?

16 A And to answer your question, El Paso would
17 have no objection basing it either on reserves or on the re-
18 cent production, but we -- the only -- I don't know, this
19 would have to be up -- for the attorney to answer this ques-
20 tion, we have mentioned these percentages to the royalty
21 owners and the working interest owners, be based on production
22 and they have agreed to that percentages.

23 Q I don't see how you can very well go by
24 production when the decline curves are so dissimilar.

25 A That's true.

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1 Q Where the reserves would be more positive
2 I should think, if you've got a reasonable method of calcu-
3 lating them.

4 A Yes, I feel that we do; either way.
5 Counselor, would we have any problem
6 there?

7 MR. BURLESON: Mr. Examiner, it might be
8 preferable, in view of the letters we've sent out, if the
9 assignment of production were made in the -- as we have re-
10 commended with all the production after the PC has recovered
11 all of its reserves to be assigned to the Mesaverde.

12 That might be another alternative that
13 might be practical.

14 A Oh, okay, do I understand Counselor to
15 say that -- that we could use the percentages based on the
16 past production of 43 and 57 percent, but when the Mesaverde
17 reaches 526 MMCF, then all the remaining gas in that well
18 would go on to the Pictured Cliffs? You know, is that the
19 way I understand that?

20 MR. BURLESON: I think it may be -- I
21 think you may have it reversed, but maybe I'm not thinking
22 about it correctly. But it appears to me that we would --
23 we would assign 57 percent to the PC, right, whereas 54,
24 according to the reserves should be assigned?

25 A Right.

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1 MR. BURLESON: So consequently, would you
2 not, once the reserves have been -- that we allocate to the
3 Pictured Cliffs have been recovered by 57 percent of production
4 wouldn't we then thereafter assign all the production to the
5 Mesaverde? Wouldn't that be the proper way to do it?

6 A Well, the Mesaverde -- yeah, either way,
7 I guess. I would think that the Mesaverde would -- it has
8 the lower reserve and it would reach its end of the producing
9 life before the Pictured Cliffs.

10 Q Yeah, I think you'd have a hard time ex-
11 plaining to Mesaverde interest owners why some way they're
12 getting no production as long as the well was continuing to
13 produce.

14 A Right. Right.

15 Q But these reserves figures are calculated
16 in a normal manner, why I'm sure that that would be a natural
17 means of distribution here.

18 A You recommend, Mr. Examiner, that we do
19 go with respect to reserves on that percentages?

20 Q I should think it would be better than
21 going by decline curves where one is going down very steeply
22 and the other is almost flat decline curve.

23 MR. NUTTER: Does anyone else have any
24 questions of Mr. Burchell? He may be excused.

25 Do you have anything further, Mr. Burleson?

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MR. BURLESON: No, sir.

MR. NUTTER: Does anyone have anything
they wish to add in Case Number 6955?

We'll take the case under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

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I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6755 heard by me on 7/9 1980.

[Signature], Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
9 July 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas
Company for downhole commingling,
Rio Arriba County, New Mexico.

CASE
6955

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

David T. Burleson, Esq.
El Paso Natural Gas Company
El Paso, Texas

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I N D E X

PAUL BURCHELL

Direct Examination by Mr. Burleson

3

Cross Examination by Mr. Nutter

15

E X H I B I T S

Applicant's Exhibit One, Sketch

5

Applicant's Exhibit Two, Graph

6

Applicant's Exhibit Three, List

12

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1 MR. NUTTER: Call next Case Number 6955.

2 MR. PADILLA: Application of El Paso
3 Natural Gas Company for downhole commingling, Rio Arriba
4 County, New Mexico.

5 MR. BURLESON: David T. Burleson for El
6 Paso Natural Gas Company, associated with Montgomery and
7 Andrews Law Firm.

8
9 (Witness sworn.)

10
11 PAUL BURCHELL
12 being called as a witness and having been duly sworn upon
13 his oath, testified as follows, to-wit:

14
15 DIRECT EXAMINATION

16 BY MR. BURLESON:

17 Q Would you please give your name and where
18 you reside for the record?

19 A My name is Paul W. Burchell and I reside
20 in El Paso, Texas.

21 Q By whom are you employed and in what
22 capacity?

23 A I'm employed by the El Paso Natural Gas
24 Company as a Senior Proration Engineer.

Q As a proration engineer have you previous

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1 testified before the Division, or one of its Examiners?

2 A Yes, I have.

3 Q Were your qualifications accepted on those
4 occasions?

5 A Yes, they were.

6 Q Mr. Burchell, are you familiar with Case
7 6955, the El Paso application here before us?

8 A 6955 is today's case and I am familiar
9 with it.

10 Q Would you please describe what El Paso
11 is seeking?

12 A First of all, Mr. Examiner, am I qualified?
13 MR. NUTTER: Yes, you're qualified, go
14 ahead.

15 A Thank you, very much.

16 We are seeking permission to downhole
17 commingle gas of both the Blanco-Mesaverde Gas Pool and gas
18 of the Tapicito-Pictured Cliffs Gas Pool, and we would like
19 to produce this gas through one meter in the San Juan 27-5
20 Unit, Well No. 42.

21 Now this well is located in Unit M of
22 Section 22, Township 27 North, Range 5 West, Rio Arriba
23 County, New Mexico.

24 This well presently produces from both
of these zones, or formations, as a dual completion. El Paso

1 proposes that the allocation of gas to each formation will be
2 divided in a certain manner that I will explain later on in
3 my testimony.

4 Q Has a leak been determined to exist in
5 this well between the two zones?

6 A Yes. The 1979 annual packer leakage
7 test indicated communication between these two zones in the
8 dually completed well.

9 Q Has any determination been made as to
10 where that leak exists, leak or leaks, I should say?

11 A Yes. A temperature survey was run and it
12 showed that there were three possible leaks on the Masaverde
13 side of the well.

14 Q Why is El Paso asking to downhole com-
15 mingle in this well?

16 A Well, basically El Paso would like to
17 undertake commingling due to the very low productivity of
18 both these zones and also because of the economics, the high
19 cost of repairing the suspected leaks would be very expensive.

20 Q Do you have an exhibit which indicates
21 the present equipment in the well?

22 A Yes I have.

23 Q Would you please explain the exhibit,
24 please?

25 A It is a diagrammatic sketch of the equip-

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1 ment which has been marked as El Paso's Exhibit Number One.

2 The exhibit shows that there are two
3 strings of tubing installed in the San Juan 27-5 No. 42 Well.
4 It also shows that a Guiberson "AG" production packer is set
5 at 5197. The well was perforated from 3296 feet to 3366
6 feet -- that's gross perforations -- in the Pictured Cliffs
7 Pool above the packer, and the Mesaverde Pool is perforated
8 from 5426 feet to 5546 feet below the packer.

9 The Pictured Cliffs side of the well pro-
10 duces through a 1-1/4 inch tubing and it is set at 3386 feet,
11 while the Mesaverde is produced through a 2-3/8ths inch
12 tubing and it is set at 5480 feet.

13 Now, Mr. Examiner, on the exhibit I show
14 on the lefthand side of the graph where the possible leaks
15 were indicated by the temperature survey and they were at 2550
16 feet, and there was another one at, a possible leak, at 3350
17 feet, and there was a third possible leak at 4500 feet, and
18 these were all on the Mesaverde side of the well.

19 Q Do you have an exhibit which indicates
20 the production history of the well?

21 A Yes, I have.

22 Q Would you please refer to that exhibit,
23 please, which is marked El Paso Exhibit Number Two and ex-
24 plain what that exhibit shows?

25 A This is El Paso Natural Gas Company's

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1 exhibit and it is marked Number Two, and it shows the Tapacito
2 Pictured Cliffs and the Blanco-Mesaverde formations gas pro-
3 duction performance since 1970.

4 On the graph, Mr. Examiner, I have on the
5 lefthand side plotted the gas production and the yearly daily
6 average at Mcf volumes, and on the bottom of the graph shows
7 the years.

8 The dashed curve is the Blanco-Mesaverde
9 side of the well and the solid curve is the Tapacito-Pictured
10 Cliffs side of the well.

11 Now, as can be observed from the Exhibit
12 Number Two, both sides of the well were declining in a normal
13 manner until the year 1978, and sometime during 1978 it was,
14 I believe, at the end of August, a packer leakage test was
15 taken, and that packer leakage test was a positive test. It
16 showed that the zones were not in communication.

17 But then sometime during 1978 and after
18 August the well apparently, because of the characteristics
19 of production changing sides of the well, it started to com-
20 municate.

21 Then during 1979, of course, that packer
22 leakage test showed that there was communication.

23 Now, I'd like to point out that for the
24 eight months prior to the positive packer leakage test the
25 Pictured Cliffs side was producing an average of 42 Mcf of gas

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1 per day and the Mesaverde was making only 31 Mcf of gas per
2 day. This represents a total amount of 73 Mcf per day with
3 50 percent of the well's production coming from the Mesaverde
4 and 43 percent from the Pictured Cliffs.

5 Q Mr. Burchell, referring to the bottom of
6 the graph, which indicates the years, the point that's shown
7 above each year represents a point determined by the total
8 production for that year.

9 A Yeah, for all twelve months, right.

10 Q So this change in production resulting
11 from the packer leak would therefor be reflected in 1978's
12 production and that's why you --

13 A That's like

14 Q -- get one of the zones, the Blanco-Mesa-
15 verde going up at that --

16 A Right.

17 Q -- at that time.

18 A Right. Like I said, it was some time
19 after the test was taken. It was a positive test; there was
20 no leaking at the end of August, so some time thereafter, from
21 September of 1978 up to December 31st of '78, the well
22 started to communicate.

23 Q What conclusions -- are there any other
24 conclusions that you draw from looking at this -- at this
25 exhibit?

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1 A Yes, I do. In my opinion, the flow rates
2 for both the Pictured Cliffs and the Mesaverde are very small.
3 Both the Mesaverde and the Pictured Cliffs zones in the Unit
4 No. 42 Well are classified as exempt marginal.

5 Q Do you have any information regarding
6 pressure and fluid characteristics in this well?

7 A The well produces no water and it does
8 produce a little condensate in an amount and I could best de-
9 scribe it as too small to measure.

10 And that condensate, there is a small
11 amount from both zones.

12 Now, with regard to pressures, based on
13 extrapolation of state tests, the Pictured Cliffs side of the
14 well had a shut-in tubing pressure of 480 pounds per square
15 inch absolute, and this is as of January the 1st, 1980. The
16 corresponding bottom hole pressure is estimated to be 454
17 psia.

18 Now, also based on extrapolation of state
19 tests, the Mesaverde shut in tubing pressure was 480 pounds
20 per square inch absolute, with a corresponding bottom hole
21 pressure at 547 psia.

22 Q Would you believe that the small amount
23 of fluid which this well produces from each of the zones, as
24 well as the pressure characteristics of both zones be compa-
25 tible should downhole commingling be permitted?

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1 A Yes, sir, because of the small pressure
2 differential and the presence of little or no liquids, I do
3 not believe that there would be any migration from one forma-
4 tion to the other. Now, this is particularly true if the
5 well is continually produced.

6 Now the ratio of the bottom hole pressures
7 is 1.2 to 1.

8 Q What advantages would there be in com-
9 mingling the two zones, Mr. Burchell?

10 A Well, there are really two main advantages.
11 First it is believed that by commingling this small volume of
12 gas, and which I indicated earlier was 73 Mcf of gas per day,
13 total, neither formation would have to be permanently aban-
14 doned, and it is estimated that the Mesaverde has around 526
15 MMCF of gas remaining reserves and the Pictured Cliffs has
16 around 600 MMCF of remaining reserves, and these reserves can
17 be recovered through commingling.

18 Now, besides efficiency in production,
19 the second advantage of commingling is, of course, the econ-
20 omics and it's the savings of rather than conducting remedial
21 action on the well.

22 Now, to repair and dually complete the
23 existing well would cost around \$45,760; however, it will
24 only cost about \$36,830 to downhole commingle the Mesaverde
25 with the Pictured Cliffs.

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1 Now, it should be noted that even if El
2 Paso were to spend the money to repair the well, there is no
3 guarantee that it wouldn't start leaking immediately after
4 completion of the work.

5 Q If Division approval is granted to com-
6 mingle, do you have in mind a formula that would be utilized
7 in allocating production between the two zones?

8 A Yes. Based on my prior testimony related
9 to the average daily production of gas, and this is for the
10 eight months of January through August of 1978, these are the
11 months just prior to the last positive packer leakage test,
12 it is recommended that 43 percent of the well's gas production
13 be attributed to the Blanco-Mesaverde Pool and 57 percent to
14 the Tapacito-Pictured Cliffs Pool.

15 Q Now those were the percentages which the
16 well had produced for those immediately --

17 A Right.

18 Q -- preceeding eight months?

19 A Right. Right.

20 Q Would you please tell us the nature of
21 ownership of production from the two wells? I'm sorry, the
22 two zones within a well?

23 A Yes. The Pictured Cliffs production be-
24 longs to the owners of the 18,566-acre Pictured Cliffs parti-
25 cipating area, and the Mesaverde production belongs to the

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1 owners of the 20,904-acre Mesavorda participating area of the
2 San Juan 27-5 Unit.

3 There are 45 working interest owners.
4 There are 26 royalty owners, and there are 49 overriding
5 royalty owners.

6 Q Do you have an exhibit which more particu-
7 larly sets forth the ownership?

8 A Yes, and it is marked as El Paso Natural
9 Gas Company Exhibit Number Three. Said owners and their per-
10 centages of interest owned are set on the schedule.

11 Now, the schedule is shown on three pages
12 The first part shows the working interest; down in the middle
13 it shows royalty interest; and on the bottom it shows the
14 overriding royalty interest.

15 The royalty interest is broken out into
16 different people and that is shown or is marked on the exhibit
17 as Schedule One, or page two, and the overriding royalty in-
18 terests are shown on page three of this schedule, and it's
19 marked Schedule Two.

20 The asterisk signs by the various people
21 or companies are where they have approved of the commingling,
22 and all the other persons have not responded to our request
23 for approval.

24 Now except for the case which I will later
25 mention, the same parties who own the production from the Mes-

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1 verde, they also own production from the Pictured Cliffs;
2 however their interests are slightly different.

3 The parties who have not responded to the
4 commingling, the greatest difference in any such party in-
5 terest in production from the two formations is that of Thomas
6 and Nancy Herrington, whose working interest in the Pictured
7 Cliffs is 5.53 percent and in the Mesaverde it is 4.95 per-
8 cent.

9 The only exception to my statement that
10 the same parties who own interest in production from the Mesa-
11 verde also own interest in production from the Pictured Cliffs
12 is that of the eight royalty owners of the tract covering the
13 northeast quarter of the northeast quarter of section 3 as
14 a group own .03 percent royalty on production from the Mesa-
15 verde and they own no royalty on production from the Pictured
16 Cliffs; however, if the east half of Section 3 is brought
17 into the participating Pictured Cliffs area by the completion
18 of a well currently being worked on, which is the NO. 21-A,
19 and the last information on that well is that it has tested
20 commercially from both the Mesaverde and the Pictured Cliffs
21 zones, in commercial quantities, and will be dually completed
22 then these parties that I have mentioned will also have a .03
23 percent royalty in production from the Pictured Cliffs, as
24 well.

25 Q

Have all owners been contacted for their

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1 approval to downhole commingling and to allocate production as
2 you're proposing in this --- in this hearing?

3 A Yes, they have, and this was done by a
4 letter that was sent out to them on November the 21st, 1979.

5 Q What response to date has there been to
6 this letter?

7 A Those who have responded and approved of
8 the project are shown on all schedules with an asterisk.

9 Of the 45 working interest owners 21, who
10 together own more than 90 percent of the PC and the Mesaverde
11 participating area, they have approved.

12 Of the 26 non-government royalty owners,
13 5 have approved. The State, which owns -- the State of New
14 Mexico, which owns 1.29 percent of the PC and 1.54 percent
15 of the Mesaverde, has approved of the commingling.

16 And the USA, or the government, which
17 owns 10.10 percent of the PC and 10 percent of the Mesaverde,
18 has not responded.

19 Of the 49 overriding royalty owners, 25
20 have approved. The remainder simply did not respond; however,
21 they were advised of the time and the place of this hearing
22 by letter.

23 Q Were any objections otherwise communicated
24 to El Paso to what is proposed here?

25 A No, in all the communications to and from

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1 there was nobody that did object to the actual commingling.

2 Q In your opinion would the granting of
3 this application protect correlative rights and prevent waste?

4 A Yes, sir.

5 Q Do you have anything further to present
6 in this case?

7 A No, I do not.

8 Q Were Exhibits One, Two, and Three prepared
9 by you or under your supervision?

10 A Yes, they were.

11 MR. BURLISON: At this time I would ask
12 that Exhibits One, Two, and Three be admitted into evidence.

13 MR. NUTTER: El Paso's Exhibits One
14 through Three will be entered in evidence.

15
16 CROSS EXAMINATION

17 BY MR. NUTTER:

18 Q Mr. Burchell, you suggested a 57-43 per-
19 cent allocation based on eight months production in 1978.

20 A Yes, sir.

21 Q How does that 57-43 compare with these
22 estimated reserves? Of 526-600?

23 A It's pretty close. Let's see, the -- if
24 I work those percentages out here. It was -- the Mesaverde
25 has around 526 MMCF of remaining gas reserves and that is

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1 46 percent, as compared to the production which I recommended,
2 43 percent.

3 Q And so obviously 54 percent of the re-
4 serves would be Pictured Cliffs, then.

5 A And the 54 percent was Pictured Cliffs,
6 and I recommended based on production, 57 percent.

7 Q Don't you think actually the reserve com-
8 puation would be more -- what did you do to obtain these re-
9 serves?

10 A These reserves were obtained in the nor-
11 mal fashion based on extrapolation of the past State
12 tests versus the production.

13 Q Pressure decline curves

14 A Right, yes, sir.

15 Q -- cumulative production?

16 A And to answer your question, El Paso would
17 have no objection basing it either on reserves or on the re-
18 cent production, but we -- the only -- I don't know, this
19 would have to be up -- for the attorney to answer this ques-
20 tion, we have mentioned these percentages to the royalty
21 owners and the working interest owners, be based on production
22 and they have agreed to that percentages.

23 Q I don't see how you can very well go by
24 production when the decline curves are so dissimilar.

25 A That's true.

Q Where the reserves would be more positive, I should think, if you've got a reasonable method of calculating them.

A Yes, I feel that we do; either way. Counselor, would we have any problem there?

MR. BURLESON: Mr. Examiner, it might be preferable, in view of the letters we've sent out, if the assignment of production were made in the -- as we have recommended with all the production after the PC has recovered all of its reserves to be assigned to the Mesaverde.

That might be another alternative that might be practical.

A Oh, okay, do I understand Counselor to say that -- that we could use the percentages based on the past production of 43 and 57 percent, but when the Mesaverde reaches 526 MMCF, then all the remaining gas in that well would go on to the Pictured Cliffs? You know, is that the way I understand that?

MR. BURLESON: I think it may be -- I think you may have it reversed, but maybe I'm not thinking about it correctly. But it appears to me that we would -- we would assign 57 percent to the PC, right, whereas 54, according to the reserves should be assigned?

A Right.

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1 MR. BURLESON: So consequently, would you
2 not, once the reserves have been -- that we allocate to the
3 Pictured Cliffs have been recovered by 57 percent of production,
4 wouldn't we then thereafter assign all the production to the
5 Mesaverde? Wouldn't that be the proper way to do it?

6 A Well, the Mesaverde -- yeah, either way,
7 I guess. I would think that the Mesaverde would -- it has
8 the lower reserve and it would reach its end of the producing
9 life before the Pictured Cliffs.

10 Q Yeah, I think you'd have a hard time ex-
11 plaining to Mesaverde interest owners why some way they're
12 getting no production as long as the well was continuing to
13 produce.

14 A Right. Right.

15 Q But these reserves figures are calculated
16 in a normal manner, why I'm sure that that would be a natural
17 means of distribution here.

18 A You recommend, Mr. Examiner, that we do
19 go with respect to reserves on that percentages?

20 Q I should think it would be better than
21 going by decline curves where one is going down very steeply
22 and the other is almost flat decline curve.

23 MR. NUTTER: Does anyone else have any
24 questions of Mr. Burchell? He may be excused.

25 Do you have anything further, Mr. Burleson?

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MR. BURLESON: No, sir.

MR. NUTTER: Does anyone have anything
they wish to add in Case Number 6955?

We'll take the case under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

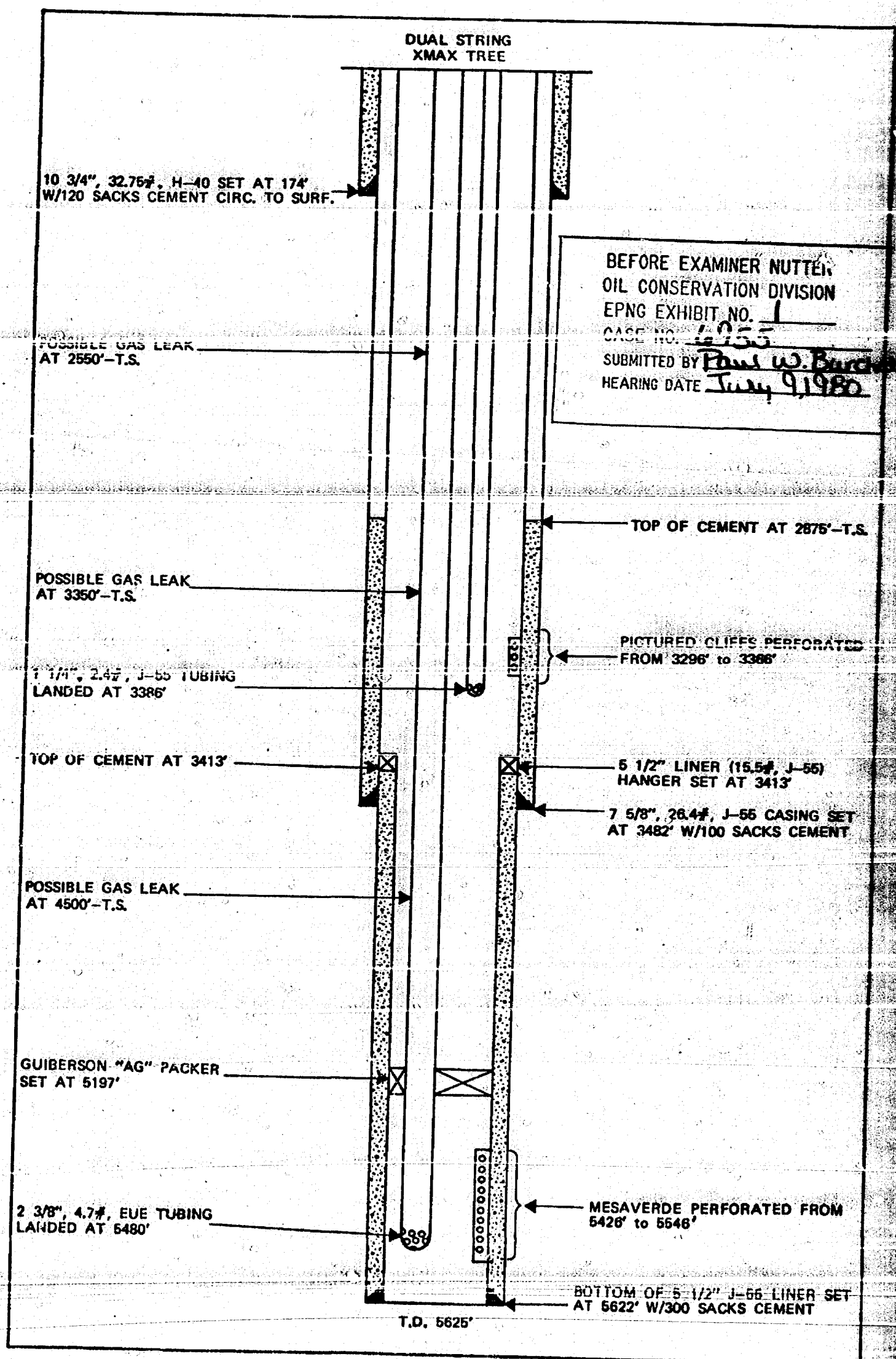
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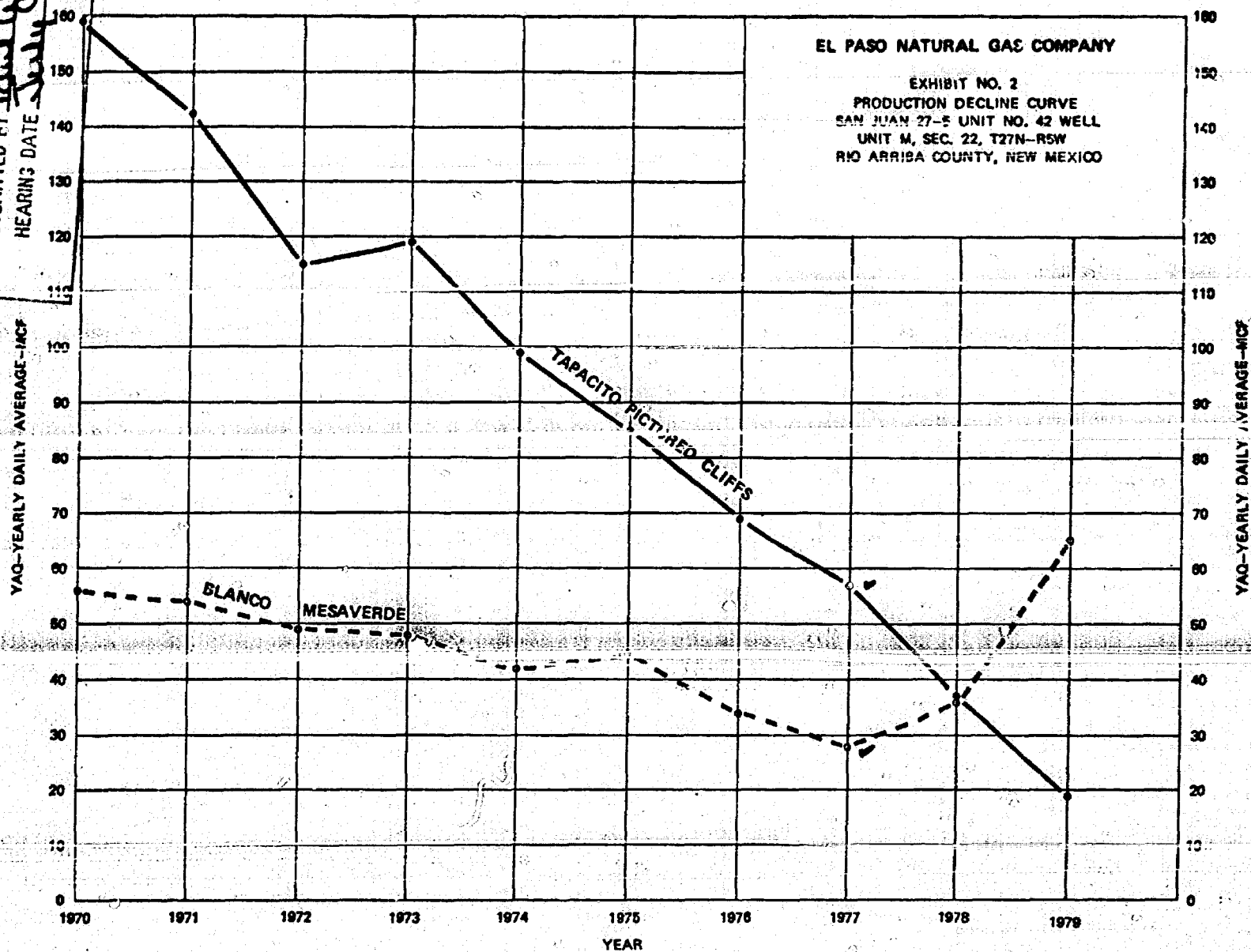
I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 686
heard by me on 7/9 1980.


Oil Conservation Division Examiner

SCHEMATIC DIAGRAM OF DUALY-COMPLETED
EL PASO NATURAL GAS CO. SAN JUAN 27-5 UNIT NO. 42 (PM)
UNIT M OF SECTION 22, T-27-N, R-5-W
RIO ARriba COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 2
CASE NO. 10955
SUBMITTED BY El Paso Natural Gas Company
HEARING DATE July 9, 1980



EL PASO NATURAL GAS COMPANY

Schedule showing the interests owned in gas rights in the 18,563.98 acre Pictured Cliffs and the 20,803.91 acre Mesaverde Participating Areas of the San Juan 27-5 Unit by the parties listed.

<u>Owner Working Interest</u>	<u>Percent of PC/PA</u>	<u>Percent of MV/PA</u>
*El Paso Natural Gas Co.	42.07%	39.45%
*Amoco Production Co.	2.59%	.77%
*El Paso Exploration Co.	1.72%	2.30%
*Northwest Pipeline Corp.	9.70%	15.76%
*PWG Partnership	23.35%	21.54%
*The Wiser Oil Company	3.45%	4.61%
J. R. Abercrombie	.21%	.19%
R. H. McCullough	.21%	.19%
Estate of J. L. Abercrombie	.10%	.09%
*Leila L. Barkley	.10%	.09%
*Langdon D. Harrison, Trustee	.17%	.21%
*Robert Tinnin	.06%	.07%
H. O. Pool Trust	.63%	.56%
Evenly E. Wallace, James A. Brown, Trustees u/w of W. Brown	.63%	.56%
*Catherine B. McElvain	.15%	.13%
*T. H. McElvain Oil & Gas Properties	1.46%	.93%
*Catherine M. Harvey	.06%	.05%
*T. H. McElvain, Jr.	.06%	.05%
W. E. Alsup Estate	.22%	.20%
*T. A. Dugan and Wife	.13%	.12%
Flag-Redfern Oil Company	.13%	.12%
*Mabelle M. Miller & James Raymond	.11%	.10%
Joe and Kathleen Quinn	.13%	.12%
M. A. Romero	.32%	.28%
Eulogia C. Candelaria	.45%	.36%
Nickie Candelaria	.05%	.04%
Cruzelia C. Montoya	.05%	.04%
Donald R. Candelaria	.05%	.04%
Paul M. Candelaria	.05%	.04%
Pablo L. Candelaria	.05%	.04%
J. Fidel Candelaria	.05%	.04%
Ophelia C. Montoya	.05%	.04%
Oriando Candelaria	.05%	.04%
Mercedes C. Skidmore	.05%	.04%
*G. F. Harrington Estate	5.84%	5.39%
T. H. and Nancy Lee Harrington	5.53%	4.95%
*T. H. Harrington	.09%	.09%
*Gerald E. Harrington	.09%	.09%
*F. Eugene Harrington	.09%	.09%
*James V. Harrington	.09%	.09%
*Mary Jone Chappell	.09%	.09%
<u>Royalty Interest</u>		
United States	10.10%	10.00%
*State of New Mexico	1.29%	1.54%
First 8 parties listed on attached Schedule I	.00%	.03%
Last 18 parties listed on attached Schedule I	1.11%	.93%
<u>Overriding Royalty Interest</u>		
49 parties listed on attached Schedule II	5.00%	5.00%

*Approval given for commingling proposed project. Other parties did not respond.

SCHEDULE I
SAN JUAN 27-5 UNIT
ROYALTY INTEREST OWNERS

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION

EPNG EXHIBIT NO. 3

CASE NO. 6955

SUBMITTED BY Paul W. Bunker

HEARING DATE July 9, 1980

- 1) Freddy Arnold
- 2) Richard Arnold
- 3) Stanley Arnold
- 4) Verda L. Boccacio
- 5) Marie Courtney
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-
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*Approval given for commingling proposed project. Other parties did not respond.

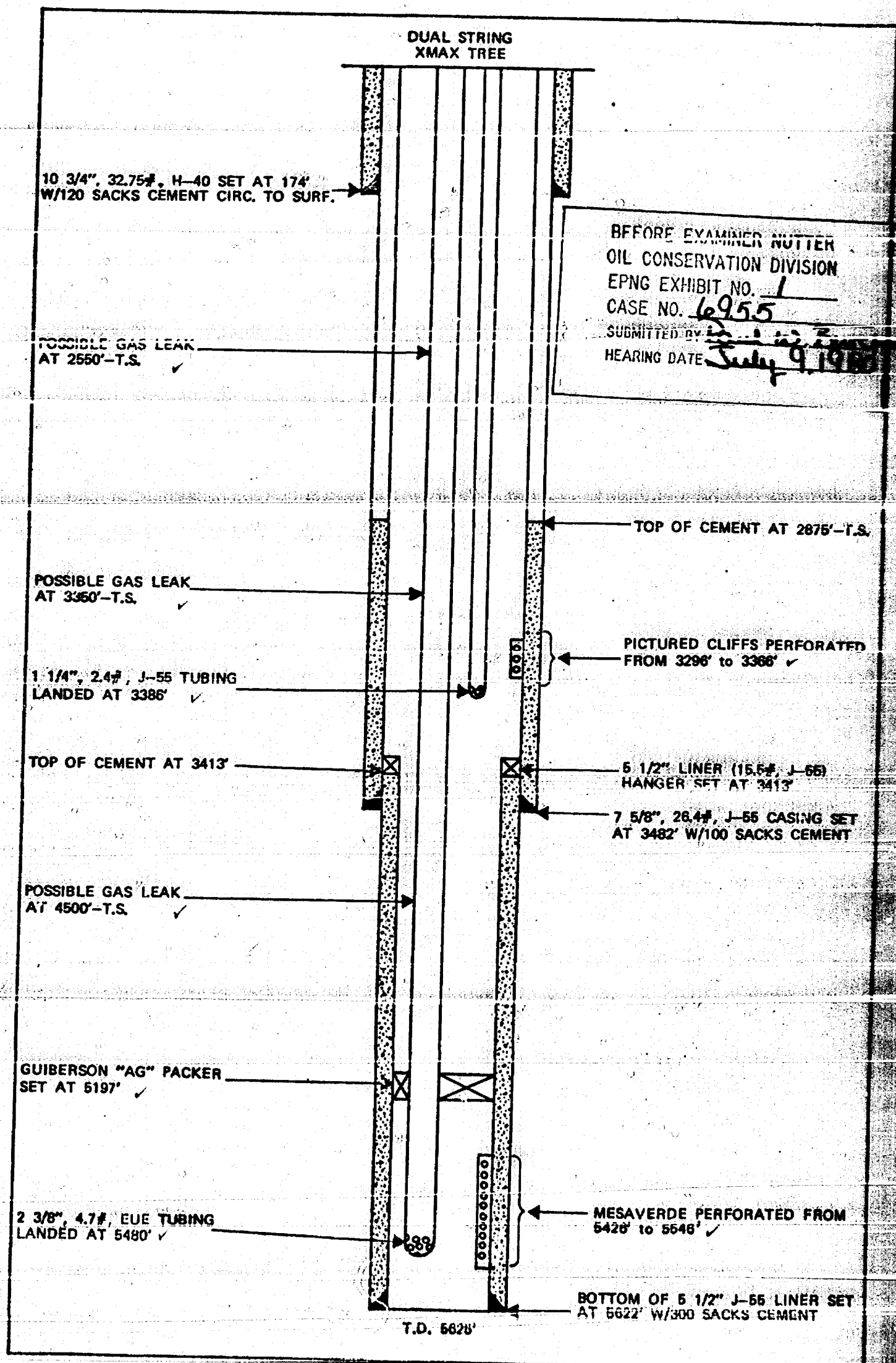
SCHEDULE II
SAN JUAN 27-5 UNIT
OVERRIDING ROYALTY INTEREST OWNERS

J. R. Abercrombie	Donald R. Candelaria
William E. Alsup, Jr. Ancillary Executor of the Estate of William E. Alsup, Deceased	Eulogia C. Candelaria
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M. A. Romero	*T. H. Harrington
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*Robert P. Tinnin	*Amoco Production Company
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Hondo Oil and Gas Co.	*Waymon Peavy
John C. Meadows	*PNG Partnership
Helen Kerr Ochsner	*Union Oil Co. of California
	*William G. Webb

*Approval given for commingling proposed project. Other parties did not respond.

SCHEMATIC DIAGRAM OF DUALY-COMPLETED

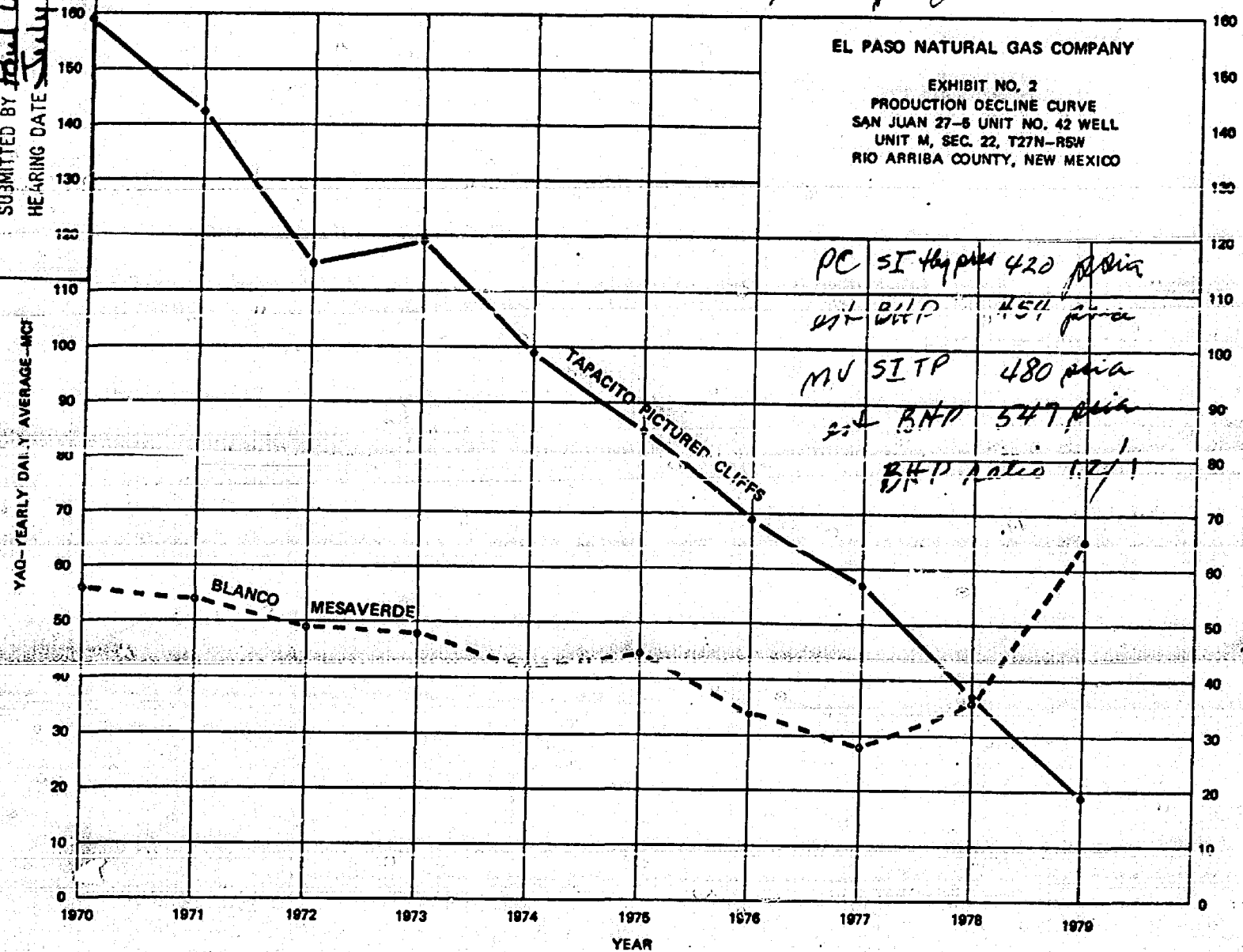
EL PASO NATURAL GAS CO. SAN JUAN 27-5 UNIT NO. 42 (PM)
UNIT M OF SECTION 22, T-27-N, R-5-W
RIO ARriba COUNTY, NEW MEXICO



BEFORE EXAMINER NOTTER
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 1
CASE NO. 6955
SUBMITTED BY ...
HEARING DATE July 9, 1988

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 2
CASE NO. 6955
SUBMITTED BY Paul W. Burch
HEARING DATE July 9, 1980

Both zones
classified
as marginal
no water
cond both zones
TSTM



Cost
positive
per day
test
prod
8 MCF
per day
1970
59 PC
43 MV
73 MCF/day
tabular prod

est reserves 524 MMCF MV 46%
600 MMCF PC 54%

EL PASO NATURAL GAS COMPANY

Schedule showing the interests owned in gas rights in the 18,563.98 acre Pictured Cliffs and the 20,803.91 acre Mesaverde Participating Areas of the San Juan 27-5 Unit by the parties listed.

<u>Owner Working Interest</u>	<u>Percent of PC/PA</u>	<u>Percent of MV/PA</u>
*El Paso Natural Gas Co.	42.07%	39.45%
*Amoco Production Co.	2.59%	.77%
*El Paso Exploration Co.	1.72%	2.30%
*Northwest Pipeline Corp.	9.70%	15.76%
*PWG Partnership	23.35%	21.54%
*The Wiser Oil Company	3.45%	4.61%
J. R. Abercrombie	.21%	.19%
R. H. McCullough	.21%	.19%
Estate of J. L. Abercrombie	.10%	.09%
*Jala L. Barkley	.10%	.09%
*Langdon D. Harrison, Trustee	.17%	.21%
*Robert Tinnin	.06%	.07%
H. O. Pool Trust	.63%	.56%
Evenly E. Wallace, James A. Brown, Trustees u/w of W. Brown	.65%	.50%
*Catherine B. McElvain	.15%	.13%
*T. H. McElvain Oil & Gas Properties	1.46%	.93%
*Catherine M. Harvey	.06%	.05%
*T. H. McElvain, Jr.	.06%	.05%
W. E. Alsup Estate	.22%	.20%
*T. A. Dugan and Wife	.13%	.12%
Flag-Redfern Oil Company	.13%	.12%
*Mabelle M. Miller & James Raymond	.11%	.10%
Joe and Kathleen Quinn	.13%	.12%
M. A. Romero	.32%	.28%
Eulogia C. Candelaria	.45%	.36%
Nickie Candelaria	.05%	.04%
Cruzelia C. Montoya	.05%	.04%
Donald R. Candelaria	.05%	.04%
Paul M. Candelaria	.05%	.04%
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Orlando Candelaria	.05%	.04%
Mercedes C. Skidmore	.05%	.04%
*G. F. Harrington Estate	5.84%	5.39%
T. H. and Nancy Lee Harrington	5.53%	4.95%
*T. H. Harrington	.09%	.09%
*Gerald E. Harrington	.09%	.09%
*F. Eugene Harrington	.09%	.09%
*James V. Harrington	.09%	.09%
*Mary Jone Chappell	.09%	.09%
* = more than 90%		
<u>Royalty Interest</u>		
United States	10.10%	10.00%
* State of New Mexico	1.29%	1.54%
First 8 parties listed on attached Schedule I	.00%	.03%
Last 18 parties listed on attached Schedule I	1.11%	.93%
<u>Overriding Royalty Interest</u>		
49 parties listed on attached Schedule II	5.00%	5.00%

*Approval given for commingling proposed project. Other parties did not respond.

SCHEDULE I
SAN JUAN 27-5 UNIT
ROYALTY INTEREST OWNERS

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION

EPNG EXHIBIT NO. 3

CASE NO. 6955

SUBMITTED BY Paul W. Burchell

HEARING DATE July 9, 1982

- 1) Freddy Arnold
- 2) Richard Arnold
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- 4) Verda L. Boccacio
- 5) Marie Courtney
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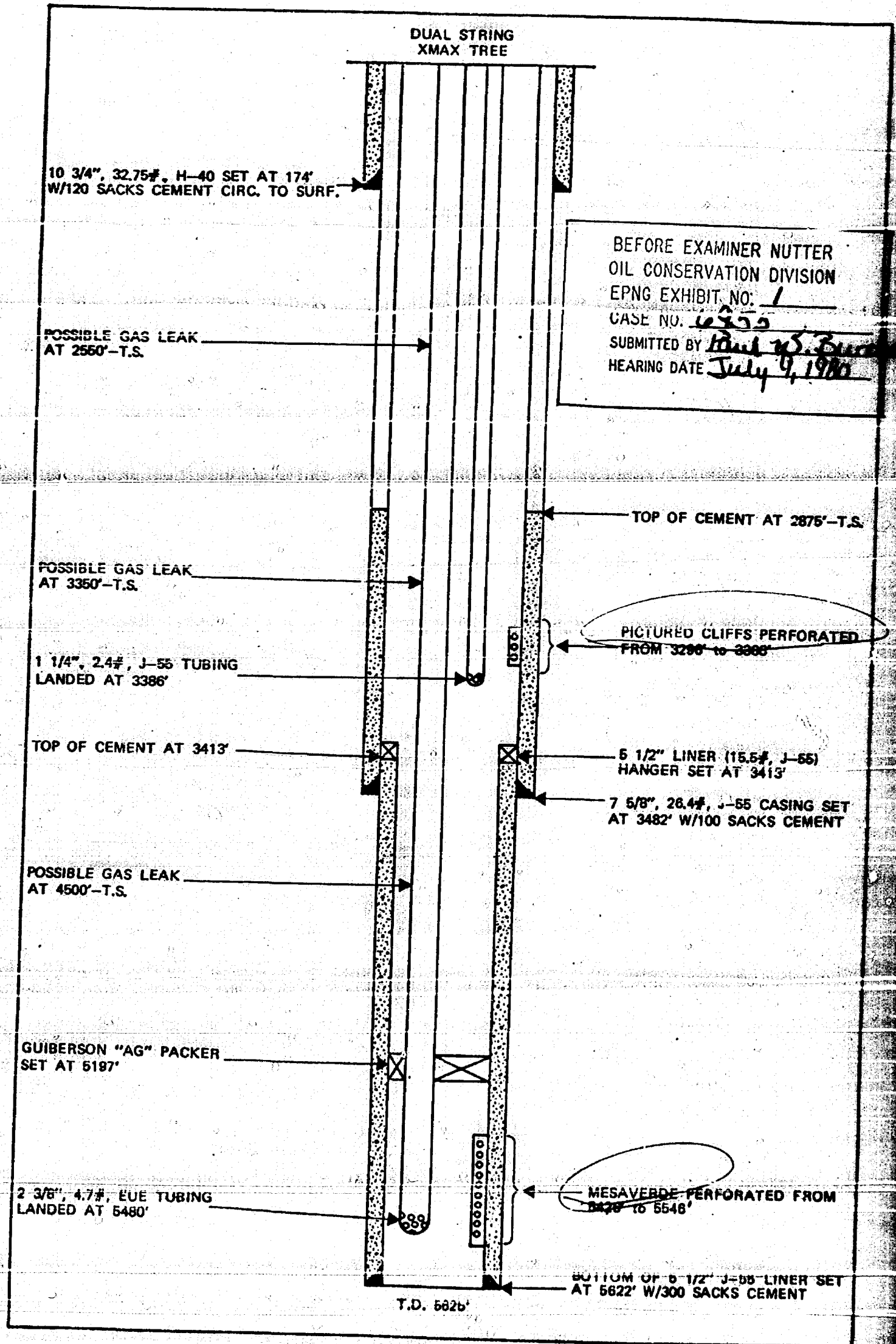
*Approval given for commencing proposed project. Other parties did not respond.

SCHEDULE II
SAN JUAN 27-5 UNIT
OVERRIDING ROYALTY INTEREST OWNERS

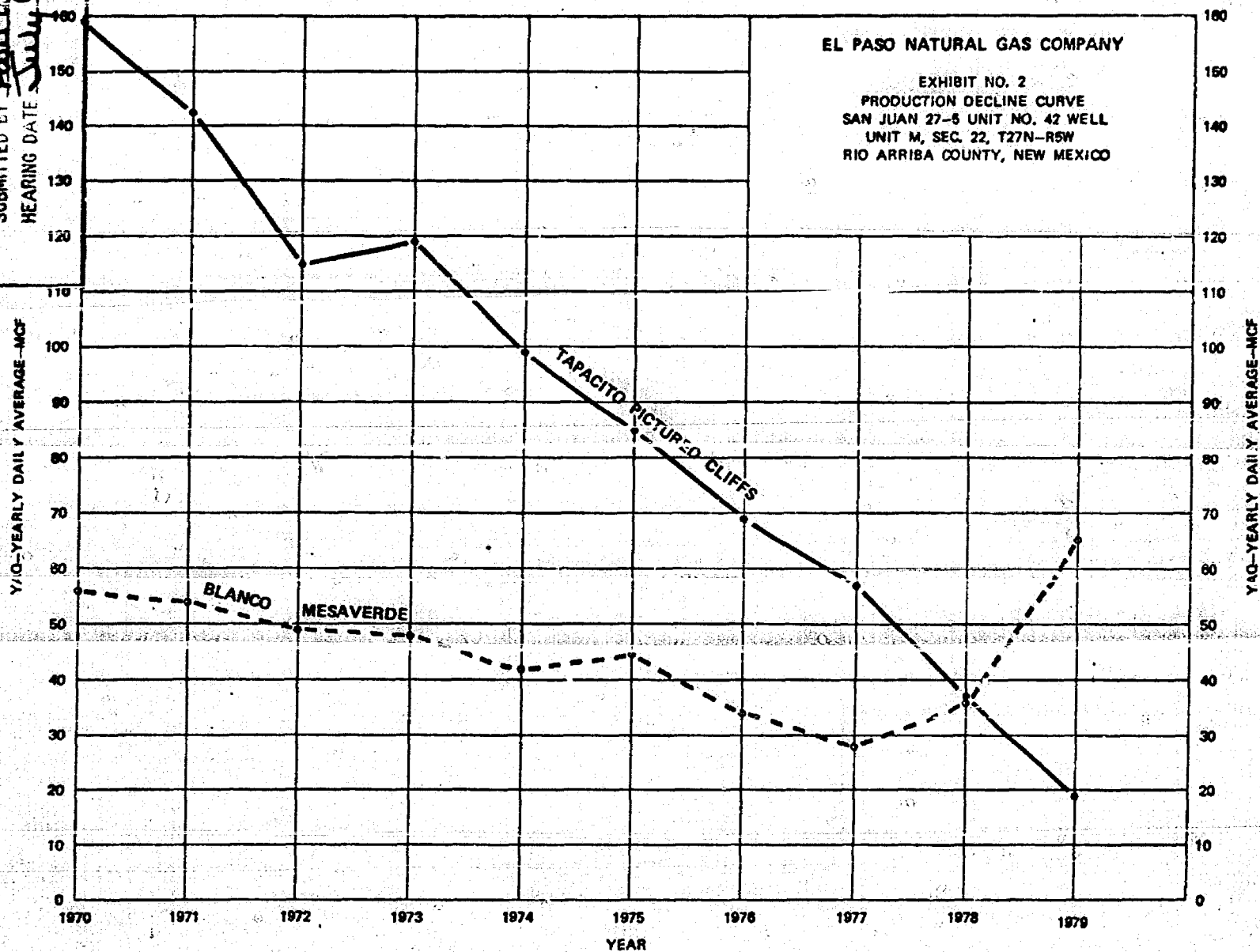
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John C. Meadows	*PWG Partnership
Helen Kerr Ochsner	*Union Oil Co. of California
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SCHEMATIC DIAGRAM OF DUALY-COMPLETED
EL PASO NATURAL GAS CO. SAN JUAN 27-5 UNIT NO. 42 (PM)
UNIT M OF SECTION 22, T-27-N, R-5-W
RIO ARriba COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 2
CASE NO. 6955
SUBMITTED BY Paul J. Burchell
HEARING DATE July 9, 1980



EL PASO NATURAL GAS COMPANY

Schedule showing the interests owned in gas rights in the 18,563.98 acre Pictured Cliffs and the 20,803.91 acre Mesaverde Participating Areas of the San Juan 27-5 Unit by the parties listed.

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SCHEDULE I
SAN JUAN 27-5 UNIT
ROYALTY INTEREST OWNERS

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 3
CASE NO. 6955
SUBMITTED BY Paul W. Burch
HEARING DATE July 9, 1960

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SCHEDULE II
SAN JUAN 27-5 UNIT
OVERRIDING ROYALTY INTEREST OWNERS

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Hondo Oil and Gas Co.	*Waymon Peavy
John C. Meadows	*PWG Partnership
Helen Kerr Ochsner	*Union Oil Co. of California
	*William G. Webb

*Approval given for commingling proposed project. Other parties did not respond.

J. O. SETH (1883-1963)

A. K. MONTGOMERY
FRANK ANDREWS
SETH D. MONTGOMERY
FRANK ANDREWS III
OWEN M. LOPEZ
VICTOR R. ORTEGA
JEFFREY R. BRANNEN
JOHN E. POUND
GARY R. KILPATRICK
THOMAS W. OLSON
WALTER J. MELENDEZ
BRUCE L. HERR
MICHAEL W. BRENNAN
ROBERT R. WORCESTER
JOHN B. ORAPER
NANCY M. ANDERSON
JOHN K. SILVER
RUDOLPH B. SACKS, JR.
W. CLINT PARSLEY
ROBERT M. AURBACH

MONTGOMERY & ANDREWS
PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS AT LAW
325 PASEO DE PERALTA
POST OFFICE BOX 2307
SANTA FE, NEW MEXICO 87501

TELEPHONE 505-982-3873

TELECOPY 505-982-4880

July 2, 1980

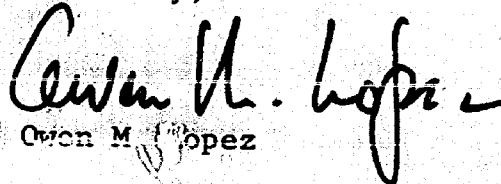
New Mexico Energy and
Minerals Department
Oil Conservation Division
Land Office Building
Santa Fe, New Mexico 87503

Re: NMOCD Case No. 6955 - Application of El Paso
Natural Gas Company for downhole commingling,
Rio Arriba County, New Mexico.

Gentlemen:

Please be advised that David T. Burlington of the office
of General Counsel of El Paso Natural Gas Company, El Paso,
Texas, is associated with our firm for the presentation of
evidence and argument in the above-referenced case.

Sincerely,


Owen M. Lopez

OML:jcd

Dockets Nos. 22-80 and 23-80 are tentatively set for July 23 and August 6, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 9, 1980

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

The following cases will be heard before Daniel S. Mutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 6953: Application of Gulf Oil Corporation for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 of Section 17, Township 20 South, Range 37 East, Eumont Gas Pool, to its Theodore Anderson Well No. 4 located in Unit B, and its No. 7, at an unorthodox location 1980 feet from the North line and 660 feet from the East line of Section 17.

CASE 6954: Application of Harvey E. Yates Company for amendment of Order No. R-6303, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-6303 which authorized the directional drilling of a well, the surface location of which is 660 feet from the North line and 1980 feet from the West line of Section 32, Township 13 South, Range 36 East. Applicant seeks approval for the bottom hole location of the well at a point 654 feet from the North line and 2158 feet from the West line of said Section 32.

CASE 6921: (Readvertised)

Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the S/4 of Section 33, Township 13 South, Range 36 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 33. 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.

CASE 6932: (Continued from June 25, 1980, Examiner Hearing)

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "JM" Well No. 2, a Morrow test to be drilled 660 feet from the South and East lines of Section 25, Township 18 South, Range 24 East, the S/2 of said Section 25 to be dedicated to the well.

CASE 6934: (Continued from June 25, 1980, Examiner Hearing)

Application of Coronado Exploration Corporation for three compulsory poolings, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying three 40-acre proration units, being the NW/4 SE/4 of Section 6, the NE/4 SE/4 of Section 28, and the SW/4 NW/4 of Section 33, all in Township 11 South, Range 28 East, each 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 wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

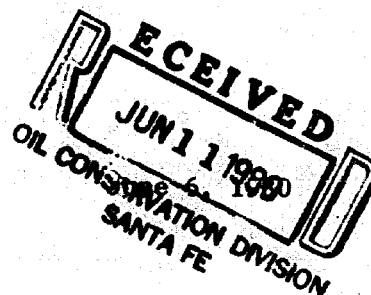
CASE 6955: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tapacito-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 42 located in Unit M of Section 22, Township 27 North, Range 5 West.

CASE 6956: Application of Amoco Production Company for an NGPA determination, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Morrow formation for its State "CH" Well No. 1 located in Unit F of Section 21, Township 16 South, Range 35 East.

CASE 6957: Application of Amoco Production Company for an NGPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Morrow formation for its State HK Com Well No. 1 located in Unit L of Section 6, Township 24 South, Range 25 East.

El Paso NATURAL GAS
COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600



Case 6955

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

El Paso Natural Gas Company respectfully requests a hearing be set before the Division or its designated examiner on July 9, 1980, if possible. El Paso seeks approval to downhole commingle gas from the Tapacito Pictured Cliffs Pool with gas from the Blanco Mesaverde Pool in its San Juan 27-5 Unit No. 42 Well. This well is located in Unit Letter M of Section 22, T27N-R5W, Rio Arriba County, New Mexico.

Very truly yours,

E. R. Manning

E. R. Manning

ERM:rs

cc: John F. Eichelmann, Jr.
David T. Bursleson
L. G. Truby
Carl E. Matthews
W. D. Dawson
D. N. Canfield
R. H. Nordhausen
Dayne Adams

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6955

Order No. R-6423

SP
APPLICATION OF EL PASO NATURAL GAS COMPANY
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

Boyl
ORDER OF THE DIVISION *OK*

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 9
19 80, at Santa Fe, New Mexico, before Examiner Daniel S.
Nutter.

NOW, on this day of July, 19 80, the
Division Director, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully
advised in the premises,

FINDS:

(1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicant, El Paso Natural Gas Company, is
the owner and operator of the San Juan 27-5 Unit Well No. 42,
located in Unit M of Section 22, Township 27 North,
Range 5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle
Tapacito-Pictured Cliffs and Blanco Mesaverde production
within the wellbore of the above-described well.

(4) That from the Tapacito-Pictured Cliffs zone, the subject well is capable of low marginal production only.

(5) That from the Blanco Mesaverde zone, the subject well is capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

accordance with such remaining reserves
(10) That in ~~order to allocate the commingled production to each of the commingled zones in the subject well,~~ 54 percent of the commingled production should be allocated to the Tapacito-Pictured Cliffs zone, and 46 percent of the commingled production to the Blanco Mesaverde zone.

(ALTERNATE)

(9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

(9) That the allocation of future production to each of the commingled zones should be made on the basis of remaining reserves attributable to each of said zones

IT IS THEREFORE ORDERED:

(1) That the applicant, El Paso Natural Gas Company, is hereby authorized to commingle Tapacito-Pictured Cliffs and Blanco Mesaverde production within the wellbore of the San Juan 27-5 Unit Well No. 42, located in Unit M of Section 22, Township 27 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That 54 percent of the commingled production shall be allocated to the Tapacito-Pictured Cliffs zone and 46 percent of the commingled production shall be allocated to the Blanco Mesaverde zone.

(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.