

CAMPBELL & BLACK, P.A.
LAWYERS

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April 9, 1991

HAND-DELIVERED

RECEIVED

APR 9 1991

OIL CONSERVATION DIVISION

Mr. Michael E. Stogner
Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87501

Re: Case 10272
Application of Amoco Production Company for Directional Drilling and an
Unorthodox Bottomhole Gas Well Location, Eddy County, New Mexico

Dear Mr. Stogner:

This letter confirms our recent telephone conversation in which I requested on behalf of Amoco Production Company, that the above-referenced case be reopened for further hearing on May 2, 1991.

The reason for this request is to enable Amoco Production Company to provide additional notice of this hearing to other affected operators, thereby assuring that it is in full compliance with OCD Rule 1207.

Your attention to this matter is appreciated.

Very truly yours,



WILLIAM F. CARR
ATTORNEY FOR AMOCO PRODUCTION COMPANY
WFC:mlh

BEFORE THE
OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

RECEIVED

IN THE MATTER OF THE APPLICATION
OF AMOCO PRODUCTION COMPANY FOR
DIRECTIONAL DRILLING AND AN
UNORTHODOX BOTTOMHOLE GAS WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

MAR 12 1991

OIL CONSERVATION DIV.
SANTA FE

CASE NO. 10272

ENTRY OF APPEARANCE

COMES NOW CAMPBELL & BLACK, P.A., and hereby enters its appearance in
the above referenced case on behalf of Amoco Production Company.

Respectfully submitted,

CAMPBELL & BLACK, P.A.

By: 

WILLIAM F. CARR
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone: (505) 988-4421

ATTORNEYS FOR AMOCO
PRODUCTION COMPANY

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

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

CASE NO. 10272

APPLICATION OF AMOCO PRODUCTION COMPANY
FOR DIRECTIONAL DRILLING AND AN
UNORTHODOX BOTTOMHOLE GAS WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

RECEIVED

APR 11 1981

OIL CONSERVATION DIVISION

SECOND PRE-HEARING STATEMENT

This Prehearing Statement is submitted by Daniel R. Currens and William F. Carr,
as required by the Oil Conservation Division.

APPEARANCES OF PARTIES

APPLICANT

Amoco Production Company
c/o Daniel R. Currens
Post Office Box 3092
Houston, Texas 77253
(713) 556-2000

name, address, phone and
contact person

ATTORNEY

Daniel R. Currens
Post Office Box 3092
Houston, Texas 77253

William F. Carr
Campbell & Black, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504
(505) 988-4421

OPPOSITION OR OTHER PARTY

Musselman, Owen & King Operating, Inc.
507 North Marienfeld Street, Suite 100
Midland, Texas 79701

name, address, phone and
contact person

ATTORNEY

STATEMENT OF CASE

APPLICANT

Amoco seeks approval of a directionally drilled unorthodox producing well in Section 12, Township 22 South, Range 23 East, Eddy County. The proposed well will be completed as a gas well in the Indian Basin (Upper Penn) Gas Pool. Amoco seeks approval for this application to assure that it has the opportunity to recover the hydrocarbon reserves under its lease. The existing well on the section, the Smith Federal Gas Com Well No. 1, is shut-in due to high water production and Amoco believes that gas reserves are migrating to the west as the water encroaches from the east. The proposed well will be drilled by re-entering the No. 1 Well, cutting and pulling 5-1/2" casing from about 5000' depth and setting cement plugs across the casing stub and at 4200' depth. The well will be kicked off above the second plug and, using directional tools, it will be deviated to an angle of about 38° from vertical. This angle will be held to the final depth of 7500' TVD. The well will be cased with 5-1/2" casing to TD and cement will be circulated back to the surface in two stages.

The surface location of this well is 1613' from the North line x 2336' from the West line of Section 12, Township 22 South, Range 23 East (Unit F). The proposed bottomhole location is in a target area of 330-430' from the West line x 1800-2000' from the North line of Section 12, Township 22 South, Range 23 East (Unit E).

OPPOSITION OR OTHER PARTY

PROPOSED EVIDENCE

APPLICANT

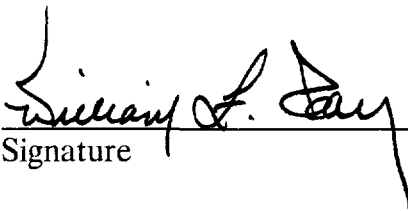
WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
James W. Collier, Jr. Sr. Petroleum Engineering Associate Houston Region Regulatory Affairs (last 4-1/2 years), 19 years Amoco experience	35 Min.	Approximately 12

OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
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PROCEDURAL MATTERS

None



Signature

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

RECEIVED

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

MAR 12 1991

OIL CONSERVATION DIV.
SANTA FE

CASE NO. 10272

APPLICATION OF AMOCO PRODUCTION COMPANY
FOR DIRECTIONAL DRILLING AND AN
UNORTHODOX BOTTOMHOLE GAS WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

PRE-HEARING STATEMENT

This Prehearing Statement is submitted by Daniel R. Currrens and William F. Carr,
as required by the Oil Conservation Division.

APPEARANCES OF PARTIES

APPLICANT

Amoco Production Company
c/o Daniel R. Currrens
Post Office Box 3092
Houston, Texas 77253
(713) 556-2000

name, address, phone and
contact person

ATTORNEY

Daniel R. Currrens
Post Office Box 3092
Houston, Texas 77253

William F. Carr
Campbell & Black, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504
(505) 988-4421

OPPOSITION OR OTHER PARTY

name, address, phone and
contact person

ATTORNEY

STATEMENT OF CASE

APPLICANT

Amoco seeks approval of a directionally drilled unorthodox producing well in Section 12, Township 22 South, Range 23 East, Eddy County. The proposed well will be completed as a gas well in the Indian Basin (Upper Penn) Gas Pool. Amoco seeks approval for this application to assure that it has the opportunity to recover the hydrocarbon reserves under its lease. The existing well on the section, the Smith Federal Gas Com Well No. 1, is shut-in due to high water production and Amoco believes that gas reserves are migrating to the west as the water encroaches from the east. The proposed well will be drilled by re-entering the No. 1 Well, cutting and pulling 5-1/2" casing from about 5000' depth and setting cement plugs across the casing stub and at 4200' depth. The well will be kicked off above the second plug and, using directional tools, it will be deviated to an angle of about 38° from vertical. This angle will be held to the final depth of 7500' TVD. The well will be cased with 5-1/2" casing to TD and cement will be circulated back to the surface in two stages.

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OPPOSITION OR OTHER PARTY

PROPOSED EVIDENCE

APPLICANT

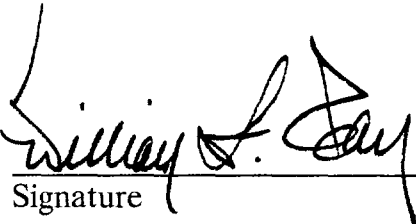
WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
James W. Collier, Jr. Sr. Petroleum Engineering Associate Houston Region Regulatory Affairs (last 4-1/2 years), 19 years Amoco experience	25 Min.	Approximately 8

OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
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PROCEDURAL MATTERS

None



Signature

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

May 8, 1991

Mr. Daniel R. Currens
P. O. Box 3092
Houston, Texas 77253

RE: CASE NO. 10272
ORDER NO. R-9487

Dear Sir:

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

Sincerely,

Florene Davidson

Florene Davidson
OC Staff Specialist

FD/sl

cc: BLM Carlsbad Office
W. Carr

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

IN THE MATTER OF THE HEARING)
CALLED BY THE OIL CONSERVATION)
DIVISION FOR THE PURPOSE OF)
CONSIDERING:) CASE NO. 10272
APPLICATION OF AMOCO PRODUCTION)
COMPANY FOR DIRECTIONAL DRILLING)
AND AN UNORTHODOX BOTTOMHOLE GAS)
WELL LOCATION, EDDY COUNTY,)
NEW MEXICO)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

March 21, 1991
1:35 p.m.
Santa Fe, New Mexico

This matter came on for hearing before the Oil
Conservation Division on March 21, 1991, at 1:35 p.m.
at Oil Conservation Division Conference Room, State Land
Office Building, 310 Old Santa Fe Trail, Santa Fe, New
Mexico, before Paula Wegeforth, Certified Court Reporter
No. 264, for the State of New Mexico.

FOR: OIL CONSERVATION BY: PAULA WEGEFORTH
DIVISION Certified Court Reporter
CSR No. 264

I N D E X

March 21, 1991
Examiner Hearing

CASE NO. 10272

PAGE
3

APPEARANCES

APPLICANT'S WITNESSES

JAMES W. COLLIER, JR.

Direct Examination by Mr. Currens

5

Examination by Examiner Stogner

18

Examination by Mr. Stovall

20

REPORTER'S CERTIFICATE

22

* * *

E X H I B I T S

ADMTD

APPLICANT'S EXHIBIT

1 through 7

18

A P P E A R A N C E S

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.
General Counsel
Oil Conservation Commission
State Land Office Building
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

FOR THE APPLICANT: CAMPBELL & BLACK, P.A.
Attorneys at Law
BY: WILLIAM F. CARR, ESQ.
110 North Guadalupe Street
Santa Fe, New Mexico 87501
AND
DANIEL R. CURRENS, ESQ.
Attorney at Law
Houston, Texas 77253

* * *

1 EXAMINER STOGNER: Let's call next case, No. 10272.

2 MR. STOVALL: Application of Amoco Production Company
3 for directional drilling and an unorthodox bottomhole gas
4 well location, Eddy County, New Mexico.

5 EXAMINER STOGNER: Call for appearances.

6 MR. CARR: May it please the examiner, my name is
7 William F. Carr with the law firm Campbell & Black, P.A.,
8 of Santa Fe. I'm appearing today in association with
9 Daniel R. Currens, an attorney for Amoco, from Houston. We
10 have one witness.

11 EXAMINER STOGNER: Thank you. Are there any other
12 appearances?

13 MR. CURRENS: Dan Currens, attorney from Houston.

14 EXAMINER STOGNER: Are there any other appearances?

15 I believe the witness is standing to be sworn.

16 (Whereupon the witness was duly sworn.)

17 MR. CURRENS: The responses of the witness are those
18 that are sworn, and he will do that in any event, and I
19 found that he will always do that, sworn or not, unless
20 he's talking about his golf game.

21 This is Amoco's application for a directionally
22 drilled replacement to a well in the Indian Basin Upper
23 Penn field to replace a well that essentially is watered
24 out. The well produced for a number of years from that
25 field with water encroachment. The original well is no

1 longer able to produce, but it's a significant distance
2 from the edge of the lease, and Amoco will seek to
3 directionally drill from that old hole to a new location to
4 recover reserves that are under that lease.

5 JAMES W. COLLIER, JR.,
6 the Witness herein, having been first duly sworn, was
7 examined and testified as follows:

8 DIRECT EXAMINATION

9 BY MR. CURRENS:

10 Q. Will you state your name, please?

11 A. My name is James Collier.

12 Q. By whom are you employed, Mr. Collier?

13 A. By Amoco Production Company.

14 Q. What do you do with Amoco Production Company?

15 A. I'm a senior petroleum engineering associate
16 assigned to the Regulatory Affairs Group in Houston, and I
17 handle proration cases such as this in Texas and
18 New Mexico.

19 Q. All right, sir. You have testified before this
20 body before, have you not?

21 A. Yes, sir.

22 Q. And your qualifications as a petroleum engineer
23 are a matter of public record, are they?

24 A. Yes, sir.

25 Q. In conjunction with this case, have you had

1 occasion to make a study of the facts and circumstances
2 that are involved in the matter we will be presenting
3 today?

4 A. Yes, sir, I have.

5 Q. Have you prepared or caused to be prepared
6 certain exhibits that you will present?

7 A. Yes, sir.

8 MR. CURRENS: Submit his qualifications as an expert
9 petroleum engineer.

10 EXAMINER STOGNER: Mr. Collier is so qualified.

11 Q. (By Mr. Currens) Let me direct your attention
12 to what's been marked as Amoco's Exhibit 1 and tell us very
13 briefly what that is, please, Mr. Collier.

14 A. Exhibit 1 is a location map identifying the
15 location of the Indian Basin Upper Penn field in the
16 western part of Eddy County, New Mexico, about 30 miles
17 west of Carlsbad. This is a shelf-edge deposit leading on
18 the shelf edge of the Delaware Basin.

19 Q. Anything else with that exhibit?

20 A. No, sir.

21 Q. Let's turn to Exhibit 2, and tell us what's
22 shown on that exhibit, please.

23 A. Exhibit 2 is a map -- portion of a map of Eddy
24 County. The orange border that I've drawn on here
25 delineates the pool as taken from the pool nomenclature.

1 You can see this is a very large pool. It encompasses
2 about 58 and a half sections.

3 There's a green arrow down in the south central
4 part of this -- of this map. This is the location --
5 bottomhole location that we're proposing here today for a
6 gas well, a replacement gas well.

7 Q. All right. Go ahead and tell us what that
8 proposed location will be.

9 A. Okay. We have delineated a window of the size
10 100 feet by 200 feet, and that description is 1,800 feet to
11 2,000 feet from the north line and 330 to 430 feet from the
12 west line of Section 12, Township 22 south, Range 23 east,
13 of Eddy County.

14 The well we're replacing is located to the west.

15 Q. How about to the east?

16 A. Excuse me, to the east.

17 Q. Is that well located in Unit F?

18 A. Yes, the current well is in Unit F. The
19 proposed location is in Unit E, so we're actually moving
20 about 2,000 feet to the west. The current location is
21 1,613 feet from the north line and 2,336 feet from the west
22 line of Section 12.

23 Q. What proration unit would be assigned to this
24 well?

25 A. We have special pool rules here of 640-acre

1 proration units and spacing rules of 1,650 feet from the
2 section line and 330 feet from the quarter-quarter section
3 line. Therefore, this proposed location would also be
4 unorthodox.

5 Q. And the section that's assigned to the well now
6 is Section 12?

7 A. That's correct.

8 Q. And that would be the same section that would be
9 assigned to the well if this application is approved and we
10 are successful in our endeavor?

11 A. Yes, sir.

12 Q. All right. Moving on to Exhibit 3, tell us
13 briefly what's shown on Exhibit 3.

14 A. Exhibit 3 is a structure map prepared by our
15 company. This shows the features of the field. This is a
16 structural trap with a major fault delineating the west
17 side of the field. There's no production on the west side
18 of that fault.

19 The northern and southern limits of the field
20 are delineated by porosity and permeability pinchouts shown
21 here by a wavy line on this map, and then the down-dip
22 limits are delineated by a gas-water contact.

23 Originally that gas-water contact was at minus
24 3,800 and with production -- this was discovered back in
25 '63, and of course the gas-water contact has moved up

1 structure. We think now it exists at -- at least in the
2 area of what we're talking about here today -- about minus
3 3,500 feet.

4 Q. Why don't you tell us a little bit of the
5 general formation data and --

6 A. Okay.

7 Q. -- reservoir characteristics?

8 A. This is a very large gas -- non-associated gas
9 reservoir. It's found at an average depth of about 7,621
10 feet, discovered in 1962. It's got an average porosity of
11 4.1 percent, average net pay thickness of 180 feet. It's
12 got a water saturation of 21 percent, average permeability
13 of 44 millidarcies.

14 It has had an original gas in place of about
15 1.7 trillion cubic feet of gas. To this point the field
16 has produced about 1.1 trillion cubic feet, leaving, in our
17 estimation, about 300 BCF left remaining to be recovered
18 from the field.

19 Q. Now, you said that this well operated, if I
20 understood you correctly, with some water encroachment from
21 the east but that you had a volumetric and partial water
22 drive combination drive mechanism in effect in the field.

23 A. I don't believe I've said that yet, but --

24 Q. Oh, all right. I thought you had.

25 A. The field --

1 Q. I'll have to pay more attention to what you've
2 said. I thought you said that.

3 A. The field does produce what -- originally early
4 in its life it appeared to be a volumetric reservoir but
5 with time -- of course down-dip wells have watered out, and
6 with 25, 28 years of production history it appears to be a
7 combination drive of volumetric recovery up dip and a
8 combination of water drive and volumetric down dip, and we
9 can see that now on the overall P-over-Z curve for the
10 field.

11 Q. And that's what I was getting ready to do, was
12 very artfully lead into the fact that you had indicated
13 there was water encroachment from the east and ask you if
14 you had anything that showed that.

15 How about your Exhibit 4?

16 A. Right. Exhibit 4 is a bottomhole pressure.
17 This is corrected for compressibility versus time. The
18 early time data from about the mid-'60s to the mid-'70s
19 shows a very straight line decline. There's some effect of
20 in the mid-'70s, and we can see now where the effects of
21 the water moving into the reservoir have supported
22 pressure, and it's even more evident on the last four
23 years -- last four points, starting from 1985 forward.

24 You can see that the average field pressure --
25 and this is based on a 24-hour shut-in wellhead

•

1 pressures -- has essentially flattened out, and of course
2 this is indicating that as the total gas withdrawals in the
3 field decrease because of declining capacity, that the
4 encroaching water is able to basically overtake the
5 reservoir and support the pressure.

6 Q. P-over-Z versus cumulative curve would indicate
7 some additional, similar-type flattening, would it not?

8 A. Yes, sir, it does.

9 Q. But that kind of curve would not be truly
10 appropriate for determining the gas in place or recoverable
11 gas from a reservoir that had this combination drive
12 mechanism you've been discussing, would it?

13 A. Yes. Even if you go back on the early time part
14 of the cumulative curve, it still indicates some effect of
15 water draw, even back in the early life.

16 Q. Did you mention the original bottomhole pressure
17 in this field?

18 A. The original bottomhole pressure at discovery
19 was 2,970 p.s.i., which is normally pressured. We found
20 that same pressure -- or the industry found that same
21 pressure existing on both sides of the fault, indicating
22 that everything was normally pressured. There's no reason
23 to believe that there was any abnormal pressure at all.

24 Q. Anything else on Exhibit 4?

25 A. No, sir.

1 Q. Now, Mr. Collier, in a non-standard location
2 case, does the commission sometimes impose, in effect, a
3 penalty by assigning an allowable factor other than, in
4 this case, one to a well that is at a non-standard
5 location?

6 A. Yes, sir, at times they have done that.

7 Q. And are there several methods that have been
8 used?

9 A. Yes, sir.

10 Q. Have you made some investigation of some of
11 those methods?

12 A. Yes, sir, I have.

13 Q. Let me direct your attention to Exhibit 5 and
14 ask you what is being shown there.

15 A. Exhibit 5 is a map that I prepared to generate
16 to lead to a proposed penalty factor for this well if it's
17 approved. The well -- again, the existing well there in
18 Section 12 is shown. I've drawn a straight line from that
19 well, and it is shut in due to high water production.

20 But I've taken offsetting wells that were either
21 nonproductive or watered out and determined what I believe
22 is the remaining productive gas acreage on Section 12,
23 underneath Section 12. That's the cross-hatched area.

24 I've come up with 352 acres.

25 There's other data on this map that we can get

1 into later, but I've put on here in red the year end 1989
2 gas cumulative production volumes and the October 1990 gas
3 sales rate.

4 But what's important here is to know that I
5 believe that 352 acres remains productive of gas under this
6 lease.

7 Q. While we're on this particular map -- it's
8 fairly legible. I see a number of the offsets to the
9 Section 12 are operated by Amoco.

10 A. Yes, sir.

11 Q. And who would the proposed location be crowding?

12 A. Amoco.

13 Q. And while we're here, have we advised, notified
14 all the offsets of this application and requested waivers?

15 A. Yes, sir, we have done that.

16 Q. In fact, we've gotten a couple back, haven't we?

17 A. Correct.

18 Q. All right. Moving on, then, to Exhibit 6 -- and
19 are we going to come back and talk some more about this
20 acreage method of determination of acreage factor?

21 A. Yes, sir, we are.

22 Q. Well, let's move on to Exhibit 6, then, and tell
23 us what's on that exhibit.

24 A. Exhibit 6, I have shown the proposed location.
25 That's the red dot there in the western part of Section 12.

1 I show the existing location, and then just about 200 feet
2 to the west of that I've shown an open circle, which would
3 be the farthest up-dip, orthodox location that we could
4 drill. That would be a 1,650 out of the -- off the both
5 lease lines location.

6 I've calculated the size radius circle to
7 encompass 352 acres, and I put that circle around with a
8 center at an orthodox location and the same size circle
9 with the center at the proposed unorthodox location. And
10 you can see, whether it's orthodox or unorthodox, there's
11 going to be some effect of encroachment throughout the life
12 of this well, proposed well -- whether it would be orthodox
13 or unorthodox.

14 And the green cross-hatched area would be that
15 area encoached by an orthodox location. The red
16 cross-hatched area would be the encroachment area caused by
17 the location of the unorthodox well.

18 Q. All right. What are those two areas?

19 A. It would be 48 acres for an orthodox location
20 and 150 acres for the proposed location.

21 Q. Anything else on Exhibit 6?

22 A. No, sir.

23 Q. Let's move to Exhibit 7, and tell us what you've
24 done on Exhibit 7.

25 A. On Exhibit 7 I have gone through a series of

1 calculations to calculate what I recommend is a penalized
2 acreage factor or allocation factor for this well if it is
3 located at the proposed location. I've chosen three
4 methods and have averaged the three to come up with a
5 factor.

6 I took the productive acreage method, which I
7 talked about, the 352 acres, over the total originally
8 productive of 640 and came up with a factor of 0.55.

9 I then compared the -- using the two circle
10 methods which I just reviewed -- and found that 71 percent
11 of the drainage pattern is coming from the Section 12. In
12 other words, 71 percent -- retaining 71 percent would be
13 protecting correlative rights.

14 And then I've ratioed the distance between the
15 unorthodox and the standard location, which is 330 over
16 1,650, which is a factor of 0.2. I then averaged .55, .71
17 and .2 and came up with the average of .487 for an
18 allocation factor.

19 Q. Is that your recommendation, then?

20 A. Yes, sir.

21 Q. Now, have other wells been re-drilled under some
22 similar circumstances in the Indian Basin Upper Penn Gas
23 Field --

24 A. Yes, sir, they have.

25 Q. -- Pool? And were any of them in the -- were

1 they similarly assigned an acreage factor of less than one?

2 A. Yes, sir.

3 And I'd like to refer back to Exhibit 5. There
4 have been numerous unorthodox wells authorized by the
5 commission in this field, and on this map segment two of
6 them happen to be on here, the two that I'd like to talk
7 about.

8 Just to the north in Section 1 there is an
9 unorthodox location which was a re-drill of the old
10 original watered-out well. That was authorized in 1987,
11 December of '87, by the commission under NSL-2453, drilled
12 by Musselman, Owen and King. It's a the Smith Federal
13 No. 2. It has a penalty factor of 0.57. It was a
14 re-drill.

15 And then just to the north of that, which is up
16 in the next township, is -- in Section 36 -- the Monsanto
17 was authorized an unorthodox location by Order R-8162 in
18 February of 1986; and that location is 330 feet out of the
19 corner. That was also a re-drill due to the original well
20 being watered out, and that was given a penalty factor of
21 0.36, an allocation factor of 0.36.

22 Q. All right, sir. Let me just ask you to
23 summarize for us what Amoco is asking for here today.

24 A. Amoco is simply asking the commission to
25 authorize re-drilling a well in a competitive gas pool

1 that's off production because of water encroachment. We
2 want to reenter the existing well and sidetrack it and
3 directionally drill to a location 330 to 430 feet off the
4 lease line to produce what we think are remaining reserves
5 of gas under that lease. That's an unorthodox location,
6 and it will be directionally drilled.

7 That's our recommendation.

8 Q. All right, sir. And in conjunction with that,
9 you're also recommending that if an allowable factor be
10 assigned, it be .487?

11 A. Yes, sir, that's true.

12 Q. I asked you earlier about notice and that we had
13 made waiver requests. Have we received any waivers?

14 A. Yes. There are -- were six parties offset to us
15 that we noticed and requested waivers, and two of those
16 were sent back signed. The other four --

17 Q. Who were they?

18 A. The two that signed were Hondo Oil and Gas and
19 Santa Fe Limited Partners.

20 MR. CURRENS: Mr. Examiner, if you don't have copies
21 of those in your file now, I will send them to you. I had
22 not brought them along as exhibits. We've just gotten them
23 in. Perhaps they may not have even gotten to your file
24 yet, but if it's okay, I'll send you copies of those.

25 EXAMINER STOGNER: I don't see them, and if you would

1 supplement this file with those copies --

2 MR. CURRENS: All right, sir.

3 EXAMINER STOGNER: -- it would be appreciated.

4 Q. (By Currens) Do you have anything else,
5 Mr. Collier?

6 A. Just back again with reference to Exhibit 5. If
7 the examiner would like, I can update those gas production
8 figures to the end of 1990. That would be one more year's
9 worth of data, if he would like.

10 EXAMINER STOGNER: I don't think that will be
11 necessary at this time, Mr. Collier. I appreciate it
12 anyway.

13 THE WITNESS: Okay. All right.

14 MR. CURRENS: In that case, I'll offer Exhibits 1
15 through 7 and tender the witness for your examination.

16 EXAMINER STOGNER: Exhibits 1 through 7 will be
17 admitted into evidence.

18 (Whereupon Applicant's Exhibits 1 through 7 were
19 admitted into evidence.)

20 EXAMINATION

21 BY EXAMINER STOGNER:

22 Q. Let's refer back to Exhibit 3.

23 The gas-water contact you show at 3,800 feet,
24 and that was as of what date or --

25 A. That was the original. That was --

1 Q. The original?

2 A. The field was discovered in '62. There wasn't
3 really much significant production before about '64 or '65.

4 Q. And now it appears to be at about 3,500 feet?

5 A. We think it is.

6 Based on our study of the field, a well will
7 start making water when the gas-water contact is within
8 about 140 feet of the bottom perforation, so -- of course
9 that will vary across the field, I guess, with producing
10 rate, but -- we do plan, hopefully, to pick up a little bit
11 of structure there, and the plan is to hopefully move away
12 from that contact to give us a little bit of producing
13 window.

14 Q. Look at the wells in Section 7 and 6 and for
15 that matter the well in Section 1 in the northeast quarter.
16 Are those no longer producing?

17 A. In Section 1, that well is no longer producing.
18 In fact, the unorthodox location I mentioned earlier down
19 in the southwest part of that section was replacement for
20 that No. 1.

21 We have 640-acre spacing, so there's just one
22 well per section.

23 Q. And the well in 7 and Well 6 -- they are no
24 longer producing?

25 A. No, those are all off production. Those are

1 watered out.

2 Q. Now, this pool is a prorated gas pool, is it
3 not?

4 A. Yes, it is.

5 MR. STOVALL: Do you have certificates of notice,
6 sending notice?

7 MR. CURRENS: Yes. We'll submit those.

8 EXAMINATION

9 BY MR. STOVALL:

10 Q. Where do the offsets that you've gotten the
11 waivers from, where are their interests?

12 A. Okay. Santa Fe Limited Partners is to the east
13 of us, I believe, in Section 7 and 6, in the next township.
14 And then Hondo is, I think, in Section 13 -- no,
15 Section 18.

16 So they were all to the east of us.

17 Q. Sections 11 and 12 are both federal leases?

18 A. Yes, they are. 11 is federal lease. 12 is a
19 communitized lease.

20 Q. Is it communitized -- two federal leases
21 communitized or is it federal plus?

22 A. It's 50 percent federal and 50 percent --

23 Q. Something else?

24 A. -- non-federal, yes.

25 Q. Okay.

1 A. 11 is all federal.

2 EXAMINER STOGNER: Anything further, Mr. Currens, of
3 this witness?

4 MR. CURRENS: That's all I have. I'll hand you the
5 cards as we close this hearing.

6 EXAMINER STOGNER: Okay. Mr. Collier, you may be
7 excused.

8 Does anybody have anything else further in this
9 case?

10 If not, this case will be taken under
11 advisement.

12
13 (The foregoing hearing was concluded at the
14 approximate hour of 1:55 p.m.)

15 * * *

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I do hereby certify that the foregoing is
a complete and true record of the proceedings in
the Examiner hearing of Case No. 10272,
heard by me on 21 March 1991.
Michael H. Stogner, Examiner
Oil Conservation Division

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2
3 STATE OF NEW MEXICO)
4 COUNTY OF SANTA FE) ss.


5 REPORTER'S CERTIFICATE

6
7
8 I, PAULA WEGEFORTH, a Certified Court Reporter and
9 Notary Public, DO HEREBY CERTIFY that I stenographically
10 reported these proceedings before the Oil Conservation
11 Division; and that the foregoing is a true, complete and
12 accurate transcript of the proceedings of said hearing as
13 appears from my stenographic notes so taken and transcribed
14 under my personal supervision.

15 I FURTHER CERTIFY that I am not related to nor
16 employed by any of the parties hereto, and have no interest
17 in the outcome hereof.

18 DATED at Santa Fe, New Mexico, this 22nd day of April,
19 1991.

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21
22
23 My Commission Expires:
September 27, 1993

24
25

PAULA WEGEFORTH
Certified Court Reporter
CSR No. 264, Notary Public

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

IN THE MATTER OF:)
APPLICATION OF AMOCO PRODUCTION COMPANY)
FOR DIRECTIONAL DRILLING AND AN) CASE NO. 10272
UNORTHODOX BOTTOMHOLE GAS WELL LOCATION,)
EDDY COUNTY, NEW MEXICO.)
-----)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Examiner

May 2, 1991
9:56 a.m.
Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on May 2, 1991, at 9:56 a.m. at the Oil Conservation Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Susan G. Ptacek, a Certified Court Reporter No. 124, State of New Mexico.

FOR: OIL CONSERVATION BY: SUSAN G. PTACEK
DIVISION Certified Court Reporter
CCR No. 124

I N D E X

May 2, 1991
Examiner Hearing
Case No. 10272

PAGE

APPEARANCES

2

REPORTER'S CERTIFICATE

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* * *

A P P E A R A N C E S

FOR THE DIVISION:

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

FOR AMOCO PRODUCTION
COMPANY:

CAMPBELL & BLACK, P.A.
Attorneys at Law
BY: WILLIAM F. CARR, ESQ.
110 N. Guadalupe
Santa Fe, New Mexico 87501

* * *

1 EXAMINER STOGNER: Call next case, number 10272.

2 MR. STOVALL: Application of Amoco Production Company
3 for directional drilling and an unorthodox bottomhole gas
4 well location, Eddy County, New Mexico.

5 EXAMINER STOGNER: This case was heard on March 21.
6 It was taken under advisement. Due to some advertisement
7 concerns, this case is being reopened at this time.

8 I will call for appearances.

9 MR. CARR: May it please the examiner, my name is
10 William F. Carr with the law firm Campbell & Black, P.A. of
11 Santa Fe. We represent Amoco Production Company in
12 association with Mr. Daniel R. Kerns, attorney for Amoco
13 from Houston.

14 Following the March 21 hearing it was discovered
15 that the notice requirements of the division had not been
16 met. We provided notice by certified mail for all
17 effective parties on April 10. At this time I would like
18 to offer an affidavit confirming that notice of this matter
19 has been provided to all effective parties in accordance
20 with the provisions of Rule 1207. And with that we would
21 request that the case be taken under advisement.

22 EXAMINER STOGNER: Does anybody else have anything
23 further in this case? Mr. Kerns, do you have anything
24 further?

25 MR. KERNS: No, Mr. Examiner, I don't.

1 EXAMINER STOGNER: Case number 10272 will once again
2 be taken under advisement.

3 (Whereupon, the hearing was concluded at the
4 approximate hour of 9:57 a.m.)

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1 STATE OF NEW MEXICO)
2) ss.
3 COUNTY OF SANTA FE)

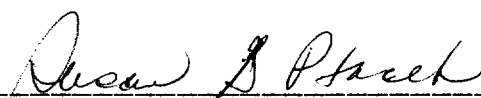
4 REPORTER'S CERTIFICATE

5 I, Susan G. Ptacek, a Certified Court Reporter and
6 Notary Public, do HEREBY CERTIFY that I stenographically
7 reported the proceedings before the Oil Conservation
8 Division, and that the foregoing is a true, complete and
9 accurate transcript of the proceedings of said hearing as
10 appears from my stenographic notes so taken and transcribed
11 under my personal supervision.

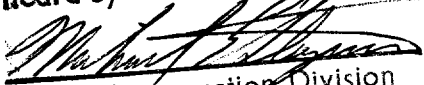
12 I FURTHER CERTIFY that I am not related to nor
13 employed by any of the parties hereto, and have no interest
14 in the outcome thereof.

15 DATED at Santa Fe, New Mexico, this 7th day of June,
16 1991.

17
18 My Commission Expires:
19 December 10, 1993



SUSAN G. PTACEK
Certified Court Reporter
Notary Public

20
21 I do hereby certify that the foregoing is
22 a complete record of the proceedings in
the Examiner hearing of Case No. 10272.
23 heard by me on 2 May 1991.
, Examiner
24 Oil Conservation Division
25