

1 NEW MEXICO OIL CONSERVATION DIVISION

2 STATE LAND OFFICE BUILDING

3 STATE OF NEW MEXICO

4 CASE NO. 10993

5
6 IN THE MATTER OF:7
8 The Application of ARCO Permian for
9 Compulsory Pooling, Eddy County,
10 New Mexico.11
12
13
14 BEFORE:

15 JIM MORROW

16 Hearing Examiner

17 State Land Office Building

18 June 9, 1994

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21
22 REPORTED BY:23 CARLA DIANE RODRIGUEZ
24 Certified Shorthand Reporter
25 for the State of New Mexico

19 1994

ORIGINAL

A P P E A R A N C E S

FOR THE APPLICANT:

LOSEE, CARSON, HAAS & CARROLL, P.A.
Post Office Drawer 239
Artesia, New Mexico 88211-0239
BY: **ERNEST L. CARROLL, ESQ.**

FOR CAMTERRA RESOURCES PARTNERS, LTD., and
ENRON OIL & GAS:

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

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1 EXAMINER MORROW: At this time we'll
2 call Case 10993, which is the application of ARCO
3 Permian for compulsory pooling in Eddy County,
4 New Mexico..

5 Call for appearances at this time.

6 MR. CARROLL: Mr. Examiner, I am Ernest
7 Carroll, with the Artesia law firm, Losee,
8 Carson, Haas & Carroll, and I'm here today on
9 behalf of ARCO, and I have two witnesses.

10 EXAMINER MORROW: All right. Other
11 appearances?

12 MR. CARR: May it please the Examiner,
13 my name is William F. Carr, with the Santa Fe law
14 firm Campbell, Carr, Berge & Sheridan. I would
15 like to enter an appearance on behalf of Camterra
16 Resources Partners, Ltd., and Enron Oil & Gas.

17 I have been advised that an agreement
18 has been reached with Enron, and once those
19 papers are signed they'll be under the agreement
20 and not subject to approval by you. I do not
21 intend to call a witness.

22 EXAMINER MORROW: Who was the other
23 operators besides Enron?

24 MR. CARR: Camterra Resources Partners,
25 Ltd.

1 EXAMINER MORROW: Would the witnesses
2 please stand to be sworn.

3 [And the witnesses were duly sworn.]

4 **JOHN LODGE**

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

7 EXAMINATION

8 BY MR. CARROLL:

9 Q. Would you please state your name,
10 address, and occupation?

11 A. My name is John Lodge. My address--my
12 business address is P.O. Box 1610, Midland,
13 Texas, 79702, ZIP code. My current occupation is
14 land director for ARCO Permian.

15 Q. Mr. Lodge, have you had an occasion to
16 testify before the New Mexico Oil & Gas
17 Commission?

18 A. No, I have not previously testified.

19 Q. Would you briefly outline your
20 educational and job background?

21 A. I have a BBA degree in petroleum land
22 management from the University of Oklahoma. I
23 graduated in 1977.

24 Since graduation, I have worked within
25 the land aspect of the oil and gas business until

1 the current time.

2 Q. All right. How long have you been
3 employed by ARCO Permian?

4 A. I have been employed by ARCO for three
5 years. Previously I was employed by a company
6 called Terra Resources, which subsequently
7 changed their name to Pacific Enterprises.

8 Q. Since your graduation from college,
9 you've been employed in the land management
10 aspect of the oil industry, is that correct?

11 A. That is correct.

12 MR. CARROLL: Mr. Examiner, I would
13 tender Mr. Lodge as an expert in the field of
14 land management.

15 EXAMINER MORROW: His qualifications
16 are acceptable.

17 MR. CARROLL: Thank you, sir.

18 Q. Mr. Lodge, are you familiar with the
19 pending application of ARCO in Case No. 10993?

20 A. Yes, I am.

21 Q. Would you briefly state what ARCO is
22 seeking by this application?

23 A. ARCO is seeking to pool the interests
24 below the base of the Bone Spring formation for
25 the drilling of a Morrow well, in the west half

1 of Section 36, Township 17 South, Range 30 East.

2 That location would be a legal location
3 that is 1980 from the south line and 660 from the
4 west line.

5 MR. CARROLL: Mr. Examiner, we
6 originally filed this to pool all formations, but
7 at this time we would like to amend it so we're
8 only pooling those formations below the base of
9 the Bone Springs.

10 EXAMINER MORROW: From the base of the
11 Bone Springs to the base of the Morrow?

12 MR. CARROLL: Yes, sir. This is a
13 Morrow test that they're proposing.

14 EXAMINER MORROW: Since you're
15 subtracting them out, I would say that wouldn't
16 require any additional notice.

17 MR. CARROLL: I wouldn't think it
18 would, Mr. Examiner.

19 Q. (By Mr. Carroll) Mr. Lodge, have you
20 prepared certain exhibits for presentation today?

21 A. Yes, I have.

22 Q. Would you please turn to Exhibit No. 1,
23 and would you identify for the record what that
24 exhibit is and then explain its significance?

25 A. This particular Exhibit No. 1 is a

1 location type map, indicating the proposed
2 location of ARCO within Section 36, of Township
3 17 South, Range 30 East. The location, as
4 previously mentioned, is located as indicated on
5 the map as 660 feet from the west line and 1980
6 feet from the south line of said Section 36.

7 The proposed spacing and proration unit
8 for that particular well, on a 320-acre basis,
9 would be as indicated within a red outline on
10 that map as the west half of that section.

11 Q. Anything else you would like to mention
12 about this exhibit?

13 A. That's fine.

14 Q. All right. Would you turn now to
15 Exhibit No. 2. Could you, likewise, identify
16 what the exhibit is and its significance?

17 A. Exhibit 2 is a location map of the same
18 respective area as indicated on Exhibit 1.
19 However, if you look specifically at the west
20 half of Section 36, you'll see that the various
21 tracts within that half-section have been broken
22 down on a surface acreage basis, indicated as
23 Tracts 1 through 4(A) and (B).

24 If you'll refer to the legend in the
25 lower left-hand portion of that map, we have the

1 respective ownership identified within those
2 areas, Tract 1 being the northwest/northwest of
3 that section. The ownership below depths of 3460
4 feet subsurface is 50 percent owned by Enron Oil
5 & Gas Company and 50 percent by Camterra
6 Resources Partners, Ltd.

7 Tract 2, being the north half of the
8 southwest quarter, the ownership is indicated as
9 45 percent to Atlantic Richfield Company, 5.5
10 percent to Coastal Management Corporation, 5.5
11 percent to Lux Energy. On the map there's a
12 type. It says, "Lute." It's actually L-U-X
13 Energy. Burns Operating, 22 percent; J. E.
14 Taubert, 11 percent; and Leota K. Steed, 11
15 percent.

16 I would like to also indicate, on that
17 particular tract, that record title ownership for
18 that tract is in the name of Atlantic Richfield
19 Company. There's a contractual arrangement
20 between Coastal Management Corporation and Lux
21 Energy Corporation, with Atlantic Richfield
22 Company, that gives them a contractual interest
23 within all depths associated with that tract.

24 They have, in turn, contractual
25 relationships with Burns Operating, J. E. Taubert

1 and Leota K. Steed, relative to the same
2 acreage.

3 Tract 3, being the southwest/southwest
4 of that section, all depths below 4000 feet
5 subsurface are owned by El Paso Production
6 Company. That interest is administered by
7 Meridian Oil.

8 Tracts 4(A) and (B), respectively, are
9 the northeast/northwest quarter and the
10 south-half/northwest quarter and the
11 southeast/southwest quarter. As to all depths
12 below the base of the Bone Springs, Enron Oil &
13 Gas Company has a 50 percent ownership, and
14 Camterra Resources Partners, Ltd., has a 50
15 percent interest there also.

16 At this point in time, I would point
17 out that the proration unit, being a 320-acre
18 unit, is identified respectively by tract
19 participation as indicated; 12-1/2 percent Tract
20 1, 25 percent Tract 2, 12-1/2 percent Tract 3,
21 and 50 percent Tract 4.

22 If you would refer further to the
23 legend on the right-hand side of the map, I've
24 got a working interest ownership summary based
25 upon the Morrow formation or any other formation

1 that's based on 320-acre proration units for the
2 west half of that section, and it's respectively
3 identified as so indicated.

4 Q. At the time that this exhibit was
5 prepared, contractual arrangements were already
6 in place, except for three other working interest
7 owners, and that was Enron, Camterra, and El Paso
8 or Meridian, is that correct?

9 A. That is correct.

10 Q. At this point in time, then, the only
11 remaining working interest owner that a
12 contractual arrangement has not been made, as was
13 announced earlier by Mr. Carr, would be the El
14 Paso or the Meridian, is that correct?

15 A. Camterra Resources, also, we do not
16 have an arrangement made with them yet, so that
17 would be the exception.

18 Q. But they have appeared here today. The
19 only other party that has not appeared would be
20 the Meridian or the El Paso group?

21 A. That hasn't appeared, that's correct.

22 Q. You have had contact with them, have
23 you not?

24 A. Yes, I have.

25 Q. And they were fully aware of this

1 hearing and have elected not to appear, is that
2 correct, or contest?

3 A. That is correct.

4 Q. All right. Anything else you would
5 like to explain to the Examiner concerning
6 Exhibit No. 2?

7 A. Not at this point.

8 Q. I would, though, like to refer to one
9 thing. Over in Section 35 there is an open
10 circle location, Enron Cedar Lake 35 Federal No.
11 2. That particular well was the subject of a
12 force pooling hearing not too long ago with the
13 Commission, is that correct?

14 A. That is correct.

15 Q. Has that well been spudded or begun
16 drilling at this time?

17 A. It has recently been spudded.

18 EXAMINER MORROW: Which one?

19 THE WITNESS: It's located in the
20 southeast quarter of Section 35, indicated as the
21 Enron Cedar Lake 35 Federal No. 2.

22 Q. Would you turn to your Exhibit No. 3,
23 Mr. Lodge?

24 A. Yes.

25 Q. Could you explain what this package of

1 material is for the Examiner?

2 A. The package of information has a
3 summary sheet identified initially just as my own
4 notes. It gives a brief summary of what has
5 transpired in this general area.

6 It also includes copies of the well
7 proposals that were submitted to all parties
8 relative to the location that we had proposed.

9 Q. This exhibit is basically designed to
10 give the Examiner some information concerning
11 ARCO's efforts to reach voluntary arrangement
12 with respect to the drilling of this particular
13 well under this proration unit in the west half
14 of Section 32, is that correct?

15 A. 36, yes.

16 Q. 36. Excuse me. Would you briefly
17 outline for the record, so the record will be
18 clear, the efforts that ARCO has gone through in
19 trying to attempt to put together a voluntary
20 arrangement?

21 A. Yes, I will. As I speak here, I'll
22 make some references to the prior Exhibit 2, just
23 for reference purposes.

24 On August 11, 1993, Meridian, by virtue
25 of their interest association with El Paso

1 Production Company, proposed the location that we
2 are proposing here today to be force pooled in
3 Section 36, and we've had several things that
4 have happened at that point in time, but they
5 initially proposed that location.

6 Subsequent to that proposed location,
7 Enron filed the application for the unorthodox
8 location and compulsory pooling for the Cedar
9 Lake 35 No. 2, located in the southeast quarter
10 of Section 35.

11 There was a hearing conducted by virtue
12 of that application, and that basically set up a
13 commencement date of March 1st for the drilling
14 of that well.

15 Enron, El Paso, ARCO and Camterra made
16 an agreement between the parties, as associated
17 with an allowable penalty for that well, that we
18 would not propose the location in Section 36
19 until we either obtained the well information
20 from the drilling of the well in Section 35 and
21 the well information from the well that was
22 drilled up in Section 26, which is the Anadarko
23 Power Federal location, or March 1st occurred.

24 What really has happened on this is
25 that the well in the north half of Section 35 is

1 an Enron well that is a very prolific Morrow gas
2 well. We were concerned about drainage in
3 Section 36, where our proposed location is, but
4 we were willing, at that particular point in
5 time, to try and get some additional information
6 from the drilling of the well in the southeast
7 quarter of Section 35, and the well to the north,
8 if possible, prior to proposing that well in
9 Section 36.

10 March 1st came, and Enron had not
11 commenced the drilling of the well in the
12 southeast quarter of Section 35. Actually, they
13 obtained an extension from the Commission that
14 provided them the opportunity to not commence
15 drilling of that well until June 1st.

16 ARCO was still concerned about drainage
17 of the acreage in Section 36, and we felt it was
18 prudent for us to go ahead and propose the
19 drilling of the well in Section 36, and we did so
20 on March 2nd.

21 Immediately after we proposed that
22 well, Enron also proposed the same well back to
23 us, like the next day.

24 EXAMINER MORROW: Who proposed it back
25 to you?

1 THE WITNESS: Enron did.

2 A. We had a lot of conversation between
3 all parties relative to the drilling of this
4 particular well, and it was of the general
5 understanding that Enron would go ahead and drill
6 the well and be the operator of the well and
7 virtually all parties would participate in the
8 drilling of this well, and proceeded in that
9 fashion.

10 We examined potential operating
11 agreements and submitted revisions, we signed
12 AFEs for the drilling of this well that Enron was
13 going to operate, and title opinions were
14 prepared, and everything was headed down the road
15 to where our proposed location would be drilled.
16 And the target date for the commencement of that
17 well was discussed as May the 15th, but we were
18 going to put June the 1st in the operating
19 agreement.

20 Enron had indicated to us that they had
21 conducted a 3D seismic program within this
22 particular area, and they had approval to
23 participate in the drilling of this well.

24 Right before the target spud date, we
25 were talking to Enron and trying to get them to

1 send out the finalized operating agreements for
2 this, and they had indicated to us that they were
3 going to have a meeting with their upper
4 management, and that they may no longer be
5 interested in drilling the well.

6 And they, in fact, had the meeting with
7 their upper management, and advised us that they
8 would no longer participate in the drilling of
9 that well and be the operator. They also
10 indicated to us that their rationale behind that,
11 to some degree, although they didn't specifically
12 tell us, that they deemed the location--implied
13 that it was due to their seismic program, but
14 they didn't really say that, but for whatever
15 reason they said that they deemed that the
16 location in the west half of Section 36 was
17 higher risk than the unorthodox location in the
18 south half of Section 35, and that they were
19 going to go ahead and proceed and drill the well
20 in the south half of Section 35 in lieu of our
21 proposed location.

22 ARCO does not own an interest in the
23 south half of Section 35; however, some of the
24 other parties that are in the west half of
25 Section 36 own interest down there, but ARCO does

1 not.

2 So, at that particular point, we felt
3 we had to go ahead and file for a compulsory
4 pooling application, to prevent any further
5 possible drainage from the well that they had
6 previously drilled.

7 Meridian advised us that they were
8 going to participate in the Cedar Lake 35 Federal
9 No. 2, and also Camterra said they were going to
10 participate in that well. Camterra indicated to
11 us that they didn't really know what they were
12 going to do about our location; they might
13 participate, they might farm out. They didn't
14 particularly want to have two wells drilling at
15 the same time, and had still indicated that to
16 us. However, they said recently that the owners
17 of the company would be in their office yesterday
18 and today, and that they would have a decision
19 for us pretty quickly on it.

20 Meridian indicated to us that they did
21 not want to have two wells drilling at the same
22 time and did not want to make a decision as to
23 our proposed location, and advised us to force
24 pool their interest. We felt that it was only
25 prudent to proceed and try and get our well

1 drilled as quickly as possible.

2 Q. Mr. Lodge, in fact, there will be
3 additional testimony presented by Mr. Pearcy
4 concerning the reason why ARCO is pursuing that,
5 and it's directly related to the drainage that's
6 occurring from the well there in the northeast
7 quarter of Section 35?

8 A. Yes.

9 Q. All right. Would you turn to Exhibit
10 No. 4 and describe what Exhibit No. 4 is, for the
11 record?

12 A. Exhibit No. 4 is a certificate of
13 mailing and compliance with Rule 1207.

14 Q. That were the notices of this hearing
15 that were sent out to El paso Production, Enron,
16 and Camterra, is that correct?

17 A. That is correct.

18 Q. Your next exhibit is Exhibit No. 5.
19 Would you please describe for the record what
20 Exhibit No. 5 is, and then describe this to the
21 Examiner, its significance?

22 A. It's basically an estimate that our
23 drilling department has made, our current
24 estimate or a cost estimate for the drilling of
25 this particular well, 11,500-foot Morrow well.

1 Total costs are expressed as \$780,900 for total
2 completed well costs.

3 Q. This is the AFE under which ARCO
4 proposes to drill this particular well in Section
5 36, is it not?

6 A. It is.

7 Q. Now, is it not true that ARCO proposes
8 to drill this under a standard Joint Operating
9 Agreement, and you have certain figures you would
10 like to suggest to the Examiner concerning
11 overhead rates and also risk penalty, is that
12 correct?

13 A. That is correct.

14 Q. Would you please tell the Examiner what
15 ARCO proposes with respect to the overhead
16 charges?

17 A. We would propose the drilling overhead
18 rate to be \$5,100 per month, and a producing well
19 rate of \$510.

20 Q. Upon what information has ARCO based
21 its arriving at those figures?

22 A. Those particular numbers are numbers
23 that we have agreed to by contract with our other
24 parties, being Coastal Management, Lux Energy,
25 relative to Tract 2 for a well of this particular

1 depth.

2 The overhead rate that was proposed by
3 Enron in their operating agreement for this
4 location was \$5,300 and \$530. Also, Enron
5 indicated this same rate for the drilling of the
6 well in the southeast quarter of Section 35.

7 We've also examined the 1993 published
8 rates by Ernst & Young for a well of this
9 particular depth, and our costs are under that.
10 We're willing to go ahead and proceed on the
11 basis of the rates specified for the drilling of
12 this well.

13 Q. What risk penalty is ARCO proposing the
14 Division set with respect to the drilling of this
15 well?

16 A. The maximum that would be permitted by
17 law, which would be 200 percent.

18 Q. Mr. Lodge, since ARCO has had some
19 experience in this field in other wells, is a
20 risk penalty of this magnitude, is that the
21 standard, or is it something out of the ordinary?

22 A. I don't think it's out of the ordinary
23 at all. In our operating agreement that we have
24 with our partners for this particular area, we
25 have a 300 percent nonconsent penalty that would

1 be applicable to a well of this nature.

2 I've contacted and talked to Enron.

3 The nonconsent penalty that was utilized within
4 their operating agreement, between their
5 partners, for this area, is 300 percent
6 nonconsent penalty also. And it was also
7 proposed by Enron to use the same penalty for an
8 operating agreement of nonconsent for the
9 proposed location.

10 Q. Mr. Lodge, in your opinion, would the
11 granting of this application of ARCO by the
12 Commission, would it be in the interests of
13 conservation, the prevention of waste, and would
14 it protect correlative rights?

15 A. Yes, it would.

16 Q. The exhibits we've previously talked
17 about, 1 through 5, those exhibits were prepared
18 under your direction or you've reviewed them for
19 their accuracy, have you not?

20 A. That is correct.

21 MR. CARROLL: Mr. Examiner, I would
22 move the admission of ARCO Exhibits 1 through 5
23 at this time.

24 EXAMINER MORROW: Exhibits 1 through 5
25 are admitted.

1 Q. Is there anything else, Mr. Lodge,
2 we've forgotten to discuss for the Examiner, that
3 you're aware of?

4 A. Not that I can recall.

5 MR. CARROLL: I would pass the witness
6 at this time, Mr. Examiner.

7 EXAMINER MORROW: Mr. Carr?

8 MR. CARR: I have no questions, Mr.
9 Morrow.

10 EXAMINATION

11 BY EXAMINER MORROW:

12 Q. On Exhibit No. 2, I followed across
13 your tables at the bottom for all the columns
14 except the communitized interest. Would you go
15 ahead and explain that for me?

16 A. That particular interest is a number
17 that, if you would take the respective working
18 interest of the parties that's indicated in the
19 first column, for instance Enron Oil & Gas
20 company for Tract No. 1, the 50 percent interest,
21 if you multiplied it times the tract factor of
22 12-1/2 percent, you would get what the actual
23 communitized interest would be for that tract, on
24 a 320-acre basis.

25 Q. All that would add up to a hundred

1 also, right?

2 A. Yes.

3 Q. I had planned to ask you why ARCO chose
4 to operate with their small interest. I guess
5 you pretty well explained that, except for
6 Camterra. Did they ever propose to operate a
7 well anywhere on this--

8 A. They have not done so yet. We've
9 talked to them and they've not expressed any
10 desire to operate this well.

11 Q. Why do you think Enron has delayed in
12 drilling their well in the south half of 35 and
13 this well?

14 A. I can only speculate as to what their
15 rationale would be for that particular delay.
16 They've got a big well that's located in the
17 north half of Section 35 that's been producing at
18 some very high rates, but they've not indicated
19 why they've delayed it. I can speculate they
20 were trying to produce the well, but that's all
21 it would be.

22 Q. Do you know what the basis was for the
23 140 percent risk penalty in the well, that was
24 approved for the south half of Section 35?

25 A. Yes, sir, I do.

1 Q. What was that?

2 A. For the drilling of the well there in
3 35, there was a negotiated 30 percent allowable
4 penalty that was agreed to by the parties. It
5 was adopted by the Commission, and it's my
6 understanding that the Commission took the 30
7 percent penalty factor and multiplied it times
8 the 200 percent, got 60 percent, and then
9 subtracted that from the penalty.

10 Q. That is 30 percent of 200 percent?

11 A. Uh-huh.

12 Q. Was that also negotiated, or was that
13 just a Commission--

14 A. No, sir, it was not negotiated between
15 the parties.

16 A. That location was unorthodox, was my
17 understanding as to the rationale behind it.

18 EXAMINER MORROW: Okay. That's all the
19 questions I have.

20 MR. CARROLL: Mr. Examiner, if I might
21 put one thing else on the record.

22 FURTHER EXAMINATION

23 BY MR. CARROLL:

24 Q. ARCO is prepared to immediately begin
25 drilling this well once we obtain an order from

1 the Commission, if they do grant the force
2 pooling, is that correct?

3 A. Yes, sir. We're prepared to try and
4 proceed as quickly as we can.

5 EXAMINER MORROW: I guess I have a
6 little more to ask, and probably the next witness
7 can answer that. You plan to present more on the
8 offset productive data, like the good well in the
9 north half of Section 35, and the length of time
10 it's been producing, that sort of thing?

11 MR. CARROLL: Yes, sir, we do. Thank
12 you, Mr. Lodge. Appreciate your testimony.

13 **DAVID PEARCY**

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

16 EXAMINATION

17 BY MR. CARROLL:

18 Q. Would you please state your name and
19 address and occupation for the record, sir?

20 A. My name is David Percy. I reside in
21 Roswell, New Mexico. I'm a consulting geologist
22 under contract to ARCO Permian.

23 Q. Mr. Percy, you've had occasion to
24 testify before the Commission and, in times past,
25 had your credentials accepted as an expert in the

1 field of petroleum geology, have you not?

2 A. That is correct.

3 MR. CARROLL: Mr. Morrow, we would
4 tender Mr. Percy as an expert in the field of
5 petroleum geology.

6 EXAMINER MORROW: Okay. And you're
7 familiar, I'm sure, with this prospect?

8 THE WITNESS: Yes, sir, I am.

9 EXAMINER MORROW: Okay. We accept his
10 qualifications.

11 Q. Mr. Percy, you have familiarized
12 yourself with the application that is presently
13 being made by ARCO, is that not true?

14 A. That's true.

15 Q. And you have been on retainer to them
16 to present testimony and prepare exhibits and
17 what have you for this particular application?

18 A. That's correct.

19 Q. Mr. Percy, would you turn to the first
20 exhibit, Exhibit No. 6, and for the record would
21 you identify what that exhibit is, and then
22 explain the significance of that exhibit?

23 A. Exhibit 6 is a base map of the Cedar
24 Lake 36 area in the vicinity of the proposed
25 location of ARCO's. It also shows in red the

1 Morrow cumulative gas production in Bcf through
2 November of 1993, which is the most convenient
3 date that's available to us.

4 I would like to point out that the well
5 we've been talking about in the north half of
6 Section 35, Enron Cedar Lake 35 Federal No. 1, as
7 of the end of November had produced nearly 6
8 Bcf. That accounts for 11 months of production
9 for the well.

10 We would also like to point out that,
11 within a two-mile radius of the proposed ARCO
12 location in the west half of Section 31, there
13 are 14 wells that have produced noncommercial
14 Morrow gas up to .5 Bcf, there are two wells that
15 are marginal that have produced from .5 to about
16 2 Bcf, and only two wells that have been
17 prolific, the Enron Cedar Lake No. 1 and
18 Anadarko's Arnold Federal Com No. 1 in Section
19 34. But there's an abundance of subcommercial
20 and noncommercial Morrow wells in this area.

21 Q. Mr. Pearcy, there's a blue line marked
22 A - A'. This denotes the cross-section that will
23 be the subject of a later exhibit?

24 A. That's right. This north to south
25 cross-section will illustrate the channel nature

1 of this Lower Morrow sand that's the main
2 objective, and the pay in the Enron Cedar Lake
3 No. 1.

4 Q. Is there anything else you would like
5 to point out with respect to this particular
6 exhibit at this time?

7 A. No, there's not.

8 Q. Would you turn to Exhibit No. 7, and
9 likewise identify for the record what Exhibit 7
10 is, and if you would explain the significance of
11 it to the Examiner?

12 A. Exhibit 7 is the same base map showing
13 the wells deeper than 10,000 feet in this area,
14 and indicates the Basal Morrow "C" sand net
15 isopach. You can see that I've shown 50 foot of
16 net pay in the Enron well in the north half of
17 Section 35, and have indicated several of the
18 wells around here have substantially less sand.
19 And, as you saw in the earlier exhibit, they were
20 generally nonproductive or only marginally
21 productive in this interval.

22 The Enron well is certainly the obvious
23 one that's different, with a very thick sand in
24 this interval, and that can be favorably compared
25 with the Arnold well, Anadarko's, in Section 34,

1 which has nearly 40 feet of sand. These two
2 wells, again, are anomalously thick and much
3 thicker than anything else in the immediate area.

4 Q. Anything else you would like to point
5 out to the Examiner with respect to this exhibit?

6 A. No, there's not.

7 Q. Likewise the blue line on this, A - A',
8 is the same cross-section we mentioned earlier?

9 A. That's correct.

10 Q. Would you then turn to your exhibit
11 marked No. 8, and describe for the record what it
12 is, and then explain its significance?

13 A. Exhibit 8 is the cross-section which I
14 prepared, which goes through several critical
15 wells in this area, as well as the proposed
16 location for ARCO's 36 State No. 1.

17 As I would like to point out, Mr.
18 Morrow, the yellow shading on this cross-section
19 indicates the prolific Morrow "C" interval; also
20 have the perforations indicated on the second
21 well from the left-hand side, the Enron well,
22 which has produced, as of November of 1993, about
23 6 Bcf.

24 We do have additional information about
25 the well and believe that, at this point, it's

1 produced between 9 and 10 Bcf, and is capable of
2 producing from around 17 to 24 million cubic feet
3 of gas per day.

4 I have shaded in orange other nearby
5 wells, where a stratigraphically equivalent zone
6 that I've generally mapped up as being within
7 that Morrow "C" sand, where that interval is
8 present and has been production tested or, in
9 several cases, has been produced but with less
10 than prolific results.

11 One of these is the well at the far
12 right-hand side, the Read & Stevens well, where
13 they just recovered a little bit of gas from that
14 zone. I've also indicated, second from the
15 right-hand side, the Mewbourne well, which is in
16 Section 2, which is very close to this second
17 well in Section 35, with a nonstandard location,
18 where excellent sand appeared on the log but
19 again the results on that were providing only a
20 marginal well, which produced around .8 Bcf.

21 On the far left-hand side is another
22 well that was recently tested, a directional well
23 of Anadarko's, and in spite of what looked like
24 some reasonable sand on the logs, they were not
25 able to recover any kind of gas from the zone.

1 We're showing in the cross-section how the
2 proposed location we anticipate would tap into
3 the main sand Enron is producing out of, and
4 would be able to, then, produce reserves that
5 ARCO would be entitled to produce under Section
6 36, that no other wells to this point have
7 successfully been able to tap into.

8 Q. Mr. Percy, you have, on this
9 cross-section, you've shown in a couple of wells
10 that there's a stratigraphically equivalent
11 section, although they've not produced as
12 prolifically as the Enron well up in the
13 northeast quarter of Section 35.

14 In your opinion and experience, is
15 there a reason for this, or an explanation that's
16 generally accepted?

17 A. Again, we're dealing with Morrow
18 fluvial channels, fluvial-deltaic environment
19 here, and although the sands can be correlated
20 across this interval, there's a good expectation
21 that there's not any kind of reasonable pressure
22 communication, that any one of these wells would
23 not necessarily tap into the same pressure regime
24 as the others, and that is what I attribute to
25 the poor results in the surrounding wells, that

1 they probably have some kind of an overbank
2 channel deposit which was not really tapping into
3 the same thick channel that Enron was producing
4 from in their Cedar Lake No. 1.

5 Q. Mr. Percy, on your Exhibit 7, you've
6 aligned this channel in kind of a
7 northwest/southeast orientation. Is that
8 orientation consistent with the subsurface
9 geology as known to the oil companies operating
10 in this particular area? Is it consistent with
11 that?

12 A. This is the most consistent
13 interpretation, in my professional judgment, for
14 this Morrow "C" sand. However, we understand
15 that the other people, such as Enron who are
16 involved in here, do have a different
17 interpretation, and that's why they're reluctant
18 to participate in this well.

19 Q. Do these Morrow pods, all tend, at
20 least the ones that have been prpeviously
21 discovered and on some of your other maps you've
22 shown some prolific areas of production, are they
23 normally considered to be aligned in this same
24 orientation?

25 A. That's correct. The northwest to

1 southeast trend for these Morrow channels appears
2 to apply to the good production which is
3 encountered in the west half of Township 17
4 South, 30 East, again referring back to a
5 previous exhibit.

6 There's one well that's made nearly 17
7 Bcf, and you appear to have a similar alignment
8 of that Lower Morrow channel at that location.
9 And also, off on the east side of this map, just
10 right off on the edge, Texaco has also found some
11 production in a similar Morrow sand that's
12 believed to trend also northwest to southeast,
13 and that's why I believe this is the best way to
14 present the orientation of this channel sand.

15 Q. All right. If you have nothing further
16 to present on Exhibit No. 8, if you could turn to
17 Exhibit No. 9, and if you could identify that for
18 the record and then explain what this exhibit
19 represents?

20 A. Exhibit No. 9 is a drainage calculation
21 that was prepared by a reservoir engineer at
22 ARCO, in which he looked at the radius of
23 drainage and the expected reserves that the Enron
24 well ought to recover if it drained an
25 approximate radius of 1980 feet, which would be

1 up to the edge of this proration unit that Enron
2 has assigned to the well.

3 Q. Mr. Pearcy, you've had an occasion to
4 review all of these calculations, have you not?

5 A. Yes, I have, and I find that they are
6 correct.

7 Q. All right. And they were made and the
8 information depicted here in the general fashion
9 that is common to reservoir engineering and what
10 geologists, like yourself, rely upon?

11 A. That's correct.

12 Q. All right. Why don't you go through
13 the exhibit now, and explain the information
14 contained on it and its significance with respect
15 to this application.

16 A. There are seven points the engineer has
17 made on here. He has taken the net pay map,
18 which I've shown previously, and looked at the
19 acres within the 1980-foot radius of the Enron 35
20 Federal No. 1, as he's shown in Item 2.

21 In No. 3 he's calculated the Bgi
22 factor, and then applied that to item No. 4 to
23 come up with approximately 931 Mcf per acre-foot
24 that ought to be recovered from the Enron Cedar
25 Lake No. 1 well in Section 35.

1 In Item 5, the gas in place he's
2 calculated from my net pay map in Section 35,
3 within a 1980-foot radius, would then only be
4 approximately 2-1/2 Bcf.

5 He then makes a point, in Item 6, that
6 once cumulative production on the Enron 35
7 Federal No. 1 has exceeded approximately 2.5 Bcf,
8 that drainage is occurring from Section 36.

9 And the approximate cumulative
10 production from the Enron 35 No. 1 is about 9-1/2
11 Bcf through May of 1994. And a current
12 production rate of 17 million cubic feet per day,
13 this would indicate that drainage is reasonable
14 to expect from Section 36 at this time, and
15 that's one reason why ARCO is anxious to get the
16 well in 36 drilled as soon as possible.

17 Q. Based on these calculations, drainage,
18 in all likelihood, has already begun to occur in
19 this tract that we're seeking to force pool, is
20 that correct?

21 A. I would think most assuredly that's the
22 case.

23 Q. All right. With respect to the
24 proposed location, in your expert opinion, does
25 this location present a reasonable prospect of

1 completing an economic Morrow well?

2 A. A reasonable expectation, yes. Based
3 upon the geology that I've looked at in the area,
4 I think it's a very realistic place to get a well
5 drilled where it needs to be done as soon as
6 possible to protect ARCO's correlative rights.

7 However, I would like to point out, as
8 I had earlier, that within this area there are 14
9 noncommercial or subcommercial wells and only two
10 prolific wells, which would give an overall
11 success ratio of a reasonable return on one's
12 money, of somewhere around 11 percent in this
13 area. And that's why we believe that the maximum
14 penalty should be assessed upon the drilling for
15 the nonconsenting partners, or the ones that are
16 being force pooled by this well.

17 Q. You heard Mr. Lodge's testimony
18 requesting the 200 percent penalty, which is the
19 maximum allowed by the Commission, and you find
20 that to be reasonable under the circumstances
21 that are presented out here in this area?

22 A. Yes. I concur.

23 Q. Now, Mr. Percy, with respect to the
24 operating mandate of the Commission, do you feel
25 that the granting of this application by the

1 Commission would be in the interests of
2 conservation, the prevention of waste, and
3 protect correlative rights?

4 A. Yes, I do.

5 Q. And again, is it not true, in your
6 professional opinion, that the desire of ARCO to
7 move quickly in this area and get this well
8 drilled is reasonable, under the drainage
9 scenario that you have depicted, is that correct?

10 A. That's correct. It would be certainly
11 reasonable for ARCO to drill this well as soon as
12 possible to avoid any further drainage to the
13 Enron well.

14 Q. Is there anything further that you
15 would like to tell the Examiner concerning any of
16 your exhibits?

17 A. Up to this point, our main concern has
18 been drainage to the Enron No. 1 well. Again, as
19 we've stated, the Enron No. 2 well in the
20 southeast quarter of Section 35 is currently
21 drilling.

22 If that does tap into this same sand
23 and is a prolific well, also, I would think that
24 ARCO would not be protecting their correlative
25 rights if this well is not drilled as soon as

1 possible.

2 Q. And, under the geologic picture that
3 you've shown in your earlier exhibits, there's
4 all reasonable expectation that this No. 2 well
5 of Enron's will be a success and very likely a
6 prolific producer, also?

7 A. Very likely. I would expect better
8 sand development than happened in Mewbourne's
9 Cedar Breaks No. 2 well to the south, and
10 therefore I would anticipate that this well ought
11 to make a well in excess of 1 Bcf, and most
12 likely in the order of something like 2 to 5 Bcf.

13 Q. Now, Mr. Percy, Exhibits 6 through 9,
14 were these exhibits prepared under your direction
15 or you've reviewed them for their accuracy, is
16 that correct?

17 A. Yes, that's correct.

18 MR. CARROLL: Mr. Examiner, I would
19 move the admission of Exhibits 6 through 9.

20 EXAMINER MORROW: Exhibits 6 through 9
21 are admitted.

22 MR. CARROLL: I would pass the witness
23 at this time.

24 EXAMINER MORROW: Mr. Carr?

25 MR. CARR: I have no questions, Mr.

1 Morrow.

2 EXAMINATION

3 BY EXAMINER MORROW:

4 Q. Mr. Percy, I wanted to ask you more
5 about the well in Section 39. One of your
6 exhibits indicated it had recovered more gas than
7 the Enron well in the north half of Section 35.
8 What kind of producing rate did it have
9 initially, and what is it producing now?

10 A. Exactly which well are you talking
11 about, sir?

12 Q. The Anadarko well.

13 A. The Anadarko well in Section 34 was--

14 Q. 34 or 39? I thought--

15 A. There's a well that's made 7.6 Bcf in
16 Section 34, which is about one mile to the west.

17 Q. Oh, all right. I had 39 feet. That's
18 where I made the mistake.

19 A. That's right, 39 foot of sand. That
20 well was completed in approximately 1992, and the
21 initial rates on that I do not have with me, but
22 did not seem to be overly excessive. To the best
23 of my recollection, it's somewhere around two
24 million cubic feet of gas per day from that well.

25 Q. Two million a day?

1 A. That was the initial rate, yes, sir.

2 Q. It probably wouldn't get you to 7.6 Bcf
3 in two years, would it?

4 A. I do have a rate in December of 1993,
5 which indicates that the well has come down
6 somewhat. At that time it was producing about 12
7 million cubic feet per month which would then
8 work back to about 500 Mcf a day.

9 Q. You say a million a day, so for a year
10 it would be 365 million, a million a day would.
11 If it was completed in 92, four times that would
12 be a little over a Bcf, wouldn't it?

13 A. So, the well came on strong but it has
14 depleted quite a bit at this point and does
15 appear to be in a different sand. I do
16 understand, from the other engineers in the area,
17 that they do not believe there's any kind of
18 communication between this Anadarko well in
19 Section 34, and the Enron Cedar Lake No. 1 well
20 in Section 35.

21 Q. From the cross-section, you indicate a
22 thicker sand section at the Enron location in
23 Section 35, the completed well there. From your
24 log analysis or other research, did you notice
25 any other differences in reservoir quality, or

1 was it strictly the thickness that made the
2 difference?

3 A. From the logs, it looks like both the
4 wells have a similar development of good sand.
5 There's a slight decrease in net footage, of
6 course, in Section 34. As best I can tell,
7 there's no significant difference on the logs
8 between these two. Again--

9 Q. How about the other wells on your
10 cross-section? How do the log porosities there
11 compare to the log porosities in the Enron well?

12 A. The log porosities in the Mewbourne
13 well in Section 2, which is on my cross-section
14 near the south end, did look very good and were
15 developed in the order of 13 to 14 percent
16 porosity. I would have expected, if that was in
17 a larger reservoir, that that should have drained
18 a whole lot more gas than it actually did. So
19 this is a case where the logs would just give you
20 a pinpoint picture of what's happening on that,
21 and would always be a good representation of the
22 gas that can be recovered from the area.

23 Q. On the Exhibit No. 9, how many acres
24 are there in a 1980-foot circle?

25 A. Within the 1980-foot circle from the

1 Enron 35 Federal No. 1, as shown in item No. 2,
2 there are approximately 70.7 acres.

3 Q. So, your drainage calculations here are
4 based on 70.7 acres, is that correct?

5 A. That's correct. That's the drainage
6 circle around the well where any kind of drainage
7 would begin to impinge upon Section 36.

8 Q. So the gas in place for a 320-acre
9 spaced well on that 320 acres would be
10 approximately three times that, I would assume
11 that would be right, or four times that?

12 A. Again, if we assume that the drainage
13 is occurring in a rectangular fashion, that could
14 be correct. Somewhere around three times that
15 would be correct.

16 However, with the orientation of the
17 Morrow sand that we have here, I would strongly
18 suspect that you would begin to have drainage
19 from the west and the east side of Enron's
20 proration unit; in other words, from Section 36,
21 once the well has produced in the line of 2.5
22 Bcf.

23 Q. Yes. I guess the assumption would be,
24 on 320-acre spacing, that if all leases in the
25 reservoir were properly developed, then each one

1 would drain 320, either from its 320 or from
2 offsetting 320s?

3 A. Presumably so, yes, sir.

4 Q. Is the gas in place, to what pressure
5 depletion is that based on?

6 A. The assumptions here for the Bgi that
7 have been used by the engineer, assumes a
8 drainage to the point of standard temperature and
9 pressure.

10 Q. You drain it to atmospheric pressure?

11 A. Just a complete drainage of that
12 acre-footage.

13 EXAMINER MORROW: All right, Mr.
14 Pearcy. That's all the questions I have. Thank
15 you, sir.

16 MR. CARROLL: Mr. Examiner, that
17 concludes ARCO's case.

18 EXAMINER MORROW: Thank you. Mr. Carr,
19 you have something you would like to say?

20 MR. CARR: No, I do not. I have
21 nothing further.

22 EXAMINER MORROW: Case 10993 will be
23 taken under advisement.

24 (And the proceedings concluded.)

25 I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 10993.
heard by me on June 9 1994.


_____, Examiner
CUMBERLAND CONSERVATION DISTRICT
(505) 984-2244

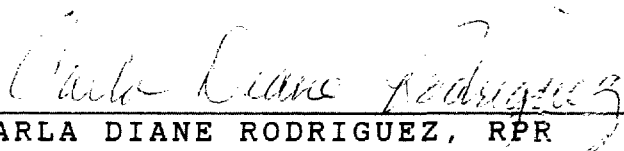
1 CERTIFICATE OF REPORTER

2
3 STATE OF NEW MEXICO)
4 COUNTY OF SANTA FE) ss.
5

6 I, Carla Diane Rodriguez, Certified
7 Shorthand Reporter and Notary Public, HEREBY
8 CERTIFY that the foregoing transcript of
9 proceedings before the Oil Conservation Division
10 was reported by me; that I caused my notes to be
11 transcribed under my personal supervision; and
12 that the foregoing is a true and accurate record
13 of the proceedings.

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

19 WITNESS MY HAND AND SEAL July 18, 1994.
20

21
22 
23 CARLA DIANE RODRIGUEZ, RPR
24 CCR No. 4
25