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EXAMINER HEARING	
SANTA FE , NEW MEXICO	
JANUARY 11, 1996	Time:8:15 A.M.
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NAME

David Pearry

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Jerry Anderson

James Bruce

DANA DELVENTHAL

Darrick Stallings

Lee Scarborough

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPAR

OIL CONSERVATION DIVISION

E G E I V E

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OIL CONSERVATION DOLL

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

APPLICATION OF ARCO PERMIAN, A UNIT OF ATLANTIC RICHFIELD, FOR COMPULSORY POOLING AND AN UNORTHODOX WELL LOCATION, EDDY COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

January 11th, 1996

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, January 11th, 1996, at the New Mexico Energy, Minerals and Natural Resources

Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

January 11th, 1996 Examiner Hearing CASE NO. 11,442

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APPLICANT'S WITNESSES:	
LEE M. SCARBOROUGH (Landman)	
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DAVID B. PEARCY (Geologist)	
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EXHIBITS

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APPEARANCES

FOR THE DIVISION:

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FOR THE APPLICANT:

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By: WILLIAM F. CARR

FOR LOUIS DREYFUS NATURAL GAS CORPORATION:

KELLAHIN & KELLAHIN
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By: W. THOMAS KELLAHIN

* * *

WHEREUPON, the following proceedings were had at 1 8:18 a.m.: 2 EXAMINER STOGNER: This hearing will come to 3 order. 4 I'm Michael Stogner, appointed hearing officer 5 for today's cases. Please note today's date, Thursday, 6 January 11th, 1996. This is for Docket Number 1-96. 7 And at this time I'll call Case Number 11,442. 8 MR. CARROLL: Application of ARCO Permian, a unit 9 of Atlantic Richfield, for compulsory pooling and an 10 unorthodox well location, Eddy County, New Mexico. 11 12 EXAMINER STOGNER: Call for appearances. MR. CARR: May it please the Examiner, my name is 13 William F. Carr with the Santa Fe law firm Campbell, Carr 14 15 and Berge. We represent ARCO Permian in this matter, and I 16 17 have two witnesses. EXAMINER STOGNER: Are there any other 18 19 appearances in this matter? MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of 20 the Santa Fe law firm of Kellahin and Kellahin, appearing 21 this morning on behalf of Louis Dreyfus Natural Gas 22 Corporation. We do not have a witness. 23 EXAMINER STOGNER: Any other appearances in this 24 25 matter?

Will the two witnesses please stand at this time 1 to be sworn? 2 (Thereupon, the witnesses were sworn.) 3 EXAMINER STOGNER: Mr. Carr? 4 MR. CARR: Thank you, Mr. Stogner. 5 LEE M. SCARBOROUGH, 6 7 the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows: 8 DIRECT EXAMINATION 9 BY MR. CARR: 10 Would you state your name for the record, please? 11 Q. 12 Α. Lee M. Scarborough. And where do you reside? 13 Q. 14 Midland, Texas. Α. By whom are you employed? 15 Q. ARCO Permian. 16 Α. 17 And what is your current position with ARCO Q. Permian? 18 19 Α. Landman. Mr. Scarborough, have you previously testified 20 Q. before the New Mexico Oil Conservation Division? 21 No, sir. 22 Α. Could you summarize your educational background 23 Q. for Mr. Stogner? 24 1977 graduate, Texas A&M University, bachelor of 25 Α.

1	business administration in management.
2	Q. Since graduation, for whom have you worked?
3	A. Hunt Energy Corporation, Lewis Energy
4	Corporation, Abraxas Petroleum Corporation, Cotton
5	Petroleum Corporation, and ARCO Permian.
6	Q. Is it fair to say that since graduation from
7	college at all times you've been employed as a petroleum
8	landman?
9	A. Yes, sir.
10	Q. And when did you go to work for ARCO Permian?
11	A. November, 1995.
12	Q. And are you familiar with the Application filed
13	in this case on behalf of ARCO?
14	A. Yes, sir.
15	Q. Are you familiar with the status of the lands in
16	the subject area?
17	A. Yes, sir.
18	Q. Are you familiar with the proposed well?
19	A. Yes, sir.
20	MR. CARR: We tender Mr. Scarborough as an expert
21	witness in petroleum land matters.
22	EXAMINER STOGNER: Any objections?
23	MR. KELLAHIN: No objection, Mr. Examiner.
24	EXAMINER STOGNER: Mr. Scarborough is so
25	qualified.

1 0. (By Mr. Carr) Would you briefly state what ARCO seeks with this Application? 2 Yes, sir, pooling from the base of the Abo to the 3 base of the Morrow formation under the east half of Section 4 5 32 for formations developed on a 320-acre spacing in the Township 17 South, Range 28 East. 6 7 And you're not seeking a pooling order for Q. 8 formations above the base of the Abo; is that correct? Yes, sir. 9 Α. And to what well do you propose to dedicate this 10 Q. 11 proposed pooled unit? The Dancer 32 State Com Well Number 1, to be 12 drilled at an unorthodox location 1728 feet from the north 13 line and 916 feet from the east line. 14 15 Mr. Scarborough, what are the applicable well-Q. location requirements for this east-half unit? 16 17 1980 from the north line and 660 from the east 18 line. So the well is, in fact, encroaching slightly to 19 Q. 20 the north from a standard location? Yes, sir. 21 Α. 22 Have you prepared certain exhibits for Q. 23 presentation in this case? 24 Α. Yes.

Would you refer to what has been marked for

25

Q.

identification as ARCO Permian Exhibit Number 1, identify
this and review it for Mr. Stogner?

- A. This is a nine-section plat with our drill-site section in the middle. It shows the pooled unit and the location.
- Q. Who operates the sections 28 and 29 to the north of the proposed spacing unit?
 - A. Amoco.

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- Q. And those are the only tracts toward which this well is being moved?
 - A. Yes, sir.
 - Q. How is Amoco involved in this project?
- A. Amoco is a partner of ours. We have an area of mutual interest that includes Sections 28, 29 and also the drill-site section.
- Q. And what is the primary objective in this proposed well?
 - A. Morrow.
- Q. Let's go to Exhibit Number 2. Can you identify and review that?
 - A. Yes, sir, Exhibit 2 is a plat of our drill-site section. It shows the location, the unit outline and the ownership breakdown.
 - Q. What percentage of the acreage under this pooled unit has been voluntarily committed to this well?

Approximately 74 percent. 1 Α. Let's refer now to what has been marked ARCO 2 Q. Exhibit Number 3. Can you identify this, please? 3 Yes, sir, this is a spreadsheet that shows the 4 5 working interest owners, total unit participation and tract 6 participation. 7 Could you identify from this list those interest owners who have voluntarily committed to the well? 8 9 Α. Voluntary commitments are ARCO, Amoco, Dreyfus, Marathon and Yates Energy. 10 And the remaining 12 interest owners, then, are 11 Q. the owners who hold the remaining 26 percent that could be 12 subject to pooling? 13 Yes, sir. 14 Α. 15 Are you continuing to negotiate with those other Q. owners? 16 17 Α. Yes, we are. Fina, for example, are you talking with them? 18 Q. 19 Α. Yes, sir. And if you reach an agreement with them, then 20 0. they would not be subject to this pooling Application? 21 Α. That's right. 22 In your opinion, Mr. Scarborough, have you made a 23 Q. good faith effort to obtain the voluntary joinder in the 24

proposed well of all the interest owners in the east half

of this section? 1 Yes, sir. Α. 2 Could you identify what has been marked ARCO 3 Q. Exhibit Number 4? 4 ARCO Exhibit 4 is the letters reflecting attempts 5 Α. to obtain voluntary joinder to the well. 6 And when did you commence your effort to obtain 7 Q. voluntary participation in this well? 8 November 2nd of 1995. 9 Α. What did you offer the other interest owners? 10 Q. We offered them a chance to either join the well 11 Α. 12 or to farm out their acreage. In addition to these letters, have you also 13 Q. followed up with telephone calls? 14 15 Yes, sir. Α. And could you identify what has been marked 16 0. 17 Exhibit Number 5? Exhibit 5 is a telephone log and call sheet, with 18 Α. the date, caller, company, contact, status, telephone 19 numbers and remarks of each phone call. 20 Why don't we refer back to Exhibit Number 4, and 21 Q. I'd direct your attention to the last couple of pages in 22 that exhibit. 23 Is this the AFE for the proposed Dancer 32 State 24

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Com Number 1 well?

A. Yes, sir.

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- Q. And was this AFE provided to all interest owners in the east half of Section 32?
 - A. Yes, it was.
 - Q. Is it current and accurate as of today?
- A. Yes, sir.
 - Q. What are the totals set forth on this AFE?
 - A. The total dryhole cost is \$496,800.
 - Q. And the completed well cost?
- 10 A. \$713,800.
- Q. Are these costs in line with what is charged by other operators in this area for a similar well?
 - A. Yes, sir.
- Q. Does this AFE include costs associated with surface equipment?
- 16 A. No, sir, it does not.
- Q. And if that were included, what impact would it have on the total for a completed well?
 - A. It would increase it approximately \$75,000.
- Q. Is Exhibit Number 6 an affidavit confirming that
 notice of this hearing has been provided in accordance with
 OCD rules?
- A. Yes, sir.
- Q. And there's a large number of interest owners who have been notified; is that right?

Yes, we notified not only the working interest 1 owners within the pool, the potential unit, but also all of 2 the offsetting owners. 3 So all offsetting owners have been notified, not 4 just Amoco as the owner to the north? 5 Α. Yes, sir. 6 Have you made an estimate of the overhead and 7 administrative costs incurred while drilling the well --8 Yes, sir. 9 Α. -- and also while producing it, if it is 10 successful? 11 12 Α. Yes, sir. And what are those? 13 Q. Drilling well rates of \$5828 a month and 14 Α. producing well rates of \$546 a month. 15 What is the source of these figures? 0. 16 The Ernst & Young survey, 1995. 17 Α. 18 Q. Do you recommend that these figures be incorporated into any order which results from this 19 hearing? 20 Yes, I do. 21 Α. And does ARCO seek to be designated operator of 22 Q. the proposed well? 23 24 A. Yes, sir.

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Q.

Will ARCO call a geological witness to review the

portions of this case which relate to the imposition of 1 2 risk penalty? Yes, sir. 3 Α. Were Exhibits 1 through 6 either prepared by you 4 or compiled under your direction? 5 Α. Yes, they were. 6 MR. CARR: Mr. Stogner, at this time we would 7 move the admission into evidence of ARCO Exhibits 1 through 8 9 6. EXAMINER STOGNER: Any objections? 10 MR. KELLAHIN: No objection. 11 12 EXAMINER STOGNER: Exhibits 1 through 6 will be 13 admitted into evidence. 14 MR. CARR: And that concludes my direct examination of Mr. Scarborough. 15 EXAMINER STOGNER: Thank you, Mr. Carr. 16 Mr. Kellahin, your witness. 17 MR. KELLAHIN: Mr. Examiner, I have no questions 18 for Mr. Scarborough. 19 EXAMINATION 20 BY EXAMINER STOGNER: 21 Mr. Scarborough, let me make sure I understand or 22 Q. have heard those figures right on the overhead rates. 23 was \$5828 --24 25 Α. Yes, sir.

-- drilling? 1 Q. And \$546 while producing? 2 Yes, sir. 3 Α. 4 Okay. And your Exhibit Number 5, this is your 5 telephone log, and at the end column you refer to well, and you either have "both", "Dorothy" or "Dancer". Whenever 6 you refer to "both", does that include the Dancer well that 7 8 you're being force-pooled in this particular case? 9 Yes, sir, it does. Α. And on Exhibit Number 3, you have reached 10 Q. voluntary agreement with Yates Energy or Yates Petroleum? 11 12 Α. Yates Energy. Okay, that's found in about the middle of the 13 Q. page; is that correct? 14 15 Yes, sir. Α. And that -- The ARCO, Amoco, Dreyfus, Marathon 16 and Yates Energy represents 74 percent of the --17 Α. Yes, sir. 18 19 Q. -- interest? 20 And who is the royalty interest under this part of Section 32, or does it vary? 21 It varies. 22 Α. And how much is state and how much is fee and how 23 Q. 24 much is federal? 25 We've got -- I believe this one is -- This is all Α.

1	state.	
2	Q.	So it's not varied, it is all state?
3	Α.	It would not vary, no, sir.
4		EXAMINER STOGNER: Mr. Carr, I have no other
5	questions	of Mr. Scarborough. He may be excused.
6		MR. CARR: Thank you, Mr. Stogner.
7		At this time we would call Dave Pearcy.
8		DAVID B. PEARCY,
9	the witner	ss herein, after having been first duly sworn upon
10	his oath,	was examined and testified as follows:
11		DIRECT EXAMINATION
12	BY MR. CAI	RR:
13	Q.	Would you state your name for the record, please?
14	Α.	David B. Pearcy.
15	Q.	Where do you reside?
16	Α.	I live in Midland, Texas.
17	Q.	By whom are you employed?
18	А.	I'm employed by ARCO.
19	Q.	And what is your position with ARCO?
20	Α.	I'm a senior geologist.
21	Q.	Mr. Pearcy, have you previously testified before
22	this Divi	sion and had your credentials as a petroleum
23	geologist	accepted and made a matter of record?
24	Α.	Yes, I have.
25	Q.	Are you familiar with the Application filed in

this case on behalf of ARCO? 1 Yes, I am. 2 Α. And are you familiar with the proposed well and 3 Q. the subject spacing unit? 4 5 Yes, sir. Α. In fact, have you made a geological study of the 6 area involved in this case? 7 That is correct. 8 Α. MR. CARR: Are the witness's qualifications 9 acceptable? 10 EXAMINER STOGNER: Are there any objections? 11 12 MR. KELLAHIN: No objection. EXAMINER STOGNER: He is so qualified. 13 Q. (By Mr. Carr) Mr. Pearcy, have you prepared 14 certain exhibits for presentation in this case? 15 Yes, I have. 16 Α. Before we go into those, would you identify the 17 Q. primary objective in this well? 18 The primary objective is the Morrow sand. 19 Α. And are there secondary objectives? 20 Q. The secondary objectives would include both the 21 Α. Atoka and the Cisco intervals. 22 And if you were to complete a -- or able to make 23 Q. a well in one of those other formations, you in fact would 24 have smaller spacing units; is that not right? 25

If it does end up being an oil well, which is a Α. 1 slim chance, that's correct, it would presumably be on 2 40-acre spacing. 3 At this time is it fair to say that you either 4 have the voluntary commitment or are in negotiations that 5 appear to be going that with all interest owners in the 6 40-acre spacing unit? 7 That's correct, we really have all of our working 8 interest within the 40-acre drill site committed. 9 Has ARCO drilled other Morrow wells in this area? 10 Q. We have drilled 31 other Morrow wells in a six-11 Α. 12 township area around this well. 13 0. Let's refer to what has been marked for 14 identification as ARCO Exhibit Number 7. Would you identify this and review it for the Examiner? 15 Exhibit Number 7 is a structure map on the top of 16 the Lower Morrow Marker. It can be an interval that is 17 frequently mapped by geologists in the area, showing 18 general monoclinal dip down to the southeast. 19 How significant is structure in terms of making a 20 Q. successful well in this area? 21 In this area structure has very little to do with 22 Α. a successful well. 23 All right, let's move to Exhibit Number 8. Could 24

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you identify that?

A. Exhibit 8 is the net pay map for what I'm calling the lower Morrow "C" interval. It's been the major interval that's been productive in this area.

I want to point out that the Amoco well immediately north of our location in Section 29 has 72 feet of pay in this "C" sand, and we're expecting somewhere around 40 feet in our well.

- Q. Have there been dryholes in this interval in the area?
- A. There have been numerous dryholes, both east and west of this sand pod that I have mapped, and that certainly increases the risk chance that we're facing.
- Q. And what did you use to construct this well map? Well control?
 - A. That's correct, I used the well control.
- Q. Was any seismic information integrated into this interpretation?
 - A. No, there was not.

- Q. Let's move to Exhibit Number 9. What is this?
- A. Exhibit 9 is a cross-section that -- the line of which is shown on the previous exhibit, heading from the good Amoco well on the right-hand side, through the proposed location, and to an old Stanolind well, which is located in the northwest quarter of Section 32.
 - Q. And what does it show?

- A. This cross-section indicates that the interval of
 Morrow "C" pay shown on the microlog on the right-hand side
 is what we expect to be the pay interval in the Dancer 32

 State Com. That interval was essentially missing in the
 other well on the left-hand side, the Stanolind State Gas
 Unit C 1.
 - Q. All right. Let's go to Exhibit Number 10, your production map, and I'd ask you to review that for the Examiner.

- A. Yes, sir, the production map indicates a black arrow at the Dancer 32 State Com location and shows the exceptional cum, over 33 BCF, on the Amoco well to the north and generally small cums in the other surrounding wells, indicating the high risk of not encountering the sand at all.
- Q. Mr. Pearcy, are you prepared to make a recommendation to the Examiner concerning the risk that should be assessed against any interest owner who does not voluntarily participate in the well?
 - A. Yes, sir, I recommend a 200-percent penalty.
- Q. Do you believe there is a chance that a well at the proposed location could in fact not be a commercial success?
- A. Yes, there certainly is. This is a typical Morrow prospect, we're chasing a channel sand, and we

1 recognize in this area that those sands frequently 2 disappear over short distances. In your opinion, will granting this Application 3 and the drilling of the proposed well be in the best 4 interest of conservation, the prevention of waste and the 5 6 protection of correlative rights? 7 Α. Yes, it would. How soon does ARCO propose to commence the 8 0. drilling of this well? 9 In February of this year. 10 Α. Were Exhibits 7 through 10 prepared by you? 11 Q. Yes, they were. 12 MR. CARR: At this time, Mr. Stogner, we would 13 move the admission into evidence of ARCO Exhibits 7 through 14 10. 15 EXAMINER STOGNER: Any objections? 16 MR. KELLAHIN: No objection, Mr. Examiner. 17 EXAMINER STOGNER: Exhibits 7 through 10 will be 18 19 admitted into evidence. 20 MR. CARR: And that concludes my direct examination of Mr. Pearcy. 21 EXAMINATION 22 23 BY EXAMINER STOGNER: 24 Mr. Pearcy, in looking at -- What is that?

Exhibit Number 8? It looks like to me that you're on the

east of the structural high or what you're considering the thickest portion of the channel; is that correct?

- A. That's correct. We're dealing with some point bars here, an effluvial system, and have reason to believe that the best sand permeability would be developed on the eastern side.
- Q. Now, the Amoco well up to the north, have you had a chance to study it?
 - A. Yes, I have.

- Q. That appears to be on the west side?
- A. Well, we're mapping that about in the center, and that's just a matter of having to deal with the thick pay section that we have in that well of 72 feet, and virtually none on the east or the west. So that's been more of a case where we just have to cram the contours in, and I've chosen to show that in the middle.
- Q. Okay. I guess what I'm trying to get at is, what makes being on the eastern side of that -- on that structure --
 - A. Okay, this channel sequence?
 - Q. Yes.
- A. The channel that we're dealing with has some meanders to it, and there will be times when the better developed sand is going to be on the east side, west side or in the middle. We geologists like to think we can

Ţ	rigure that out. We're hoping we're doing the right thing,
2	sir.
3	Q. Has this thought been pretty consistent
4	throughout some of the other wells that you're familiar
5	with in the area, about being on the eastern side or the
6	western side, depending on the flow of the channel?
7	A. To some extent. On the exhibits that we'll show
8	in the following case, we're trying to target there towards
9	the middle of a sandbody. But I do believe that these
10	sands are not going to be always straight, and we just need
11	to try and put our best science into picking the best
12	location.
13	EXAMINER STOGNER: Any other questions?
14	You may be excused.
15	MR. CARR: We have nothing further in this case,
16	Mr. Stogner.
17	EXAMINER STOGNER: Anybody else have anything
18	further in Case Number 11,442?
19	This case will be taken under advisement.
20	(Thereupon, these proceedings were concluded at
21	8:36 a.m.)
22	# * * a complete record of the proceedings in
23	the Examiner hearing of Case No. //442 heard by me on Jan // 1994
24	Mahad & Stope , Examiner
25	Oil Conservation Division