

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

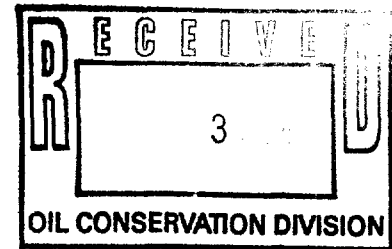
JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

July 13, 1994

HAND DELIVERED

William J. LeMay
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504



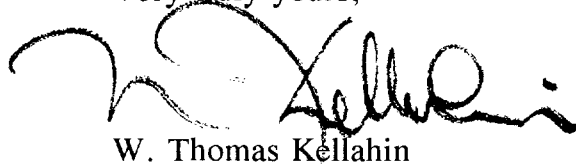
Re: NMOCD Case 11020
Application of Paloma Resources, Inc.
for simultaneous dedication or in the
alternative for two non-standard units,
Chaves County, New Mexico

Dear Mr. LeMay:

On behalf of Matador Petroleum Corporation, an adversely affecting interest owner, please find enclosed our Entry of Appearance in opposition to the applicant in the referenced case which is now set for an Examiner's hearing on July 21, 1994.

In addition, we are requesting that this case be continued until the hearing scheduled for August 18, 1994.

Very truly yours,



W. Thomas Kellahin

cc: Matador Petroleum Corporation
cc: Via facsimile to: Ernest L. Carroll, Esq.
Attorney for applicant

AM

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

IN THE MATTER OF THE APPLICATION
OF PALOMA RESOURCES, INC. FOR
SIMULTANEOUS DEDICATION OR TWO
NON-STANDARD GAS PRORATION UNITS,
CHAVES COUNTY, NEW MEXICO

CASE NO. 11020

ENTRY OF APPEARANCE
AND
REQUEST FOR CONTINUANCE

Comes now MATADOR PETROLEUM CORPORATION, by their attorneys, Kellahin and Kellahin, and enters its appearance in this case as an interested party in opposition to the applicant.

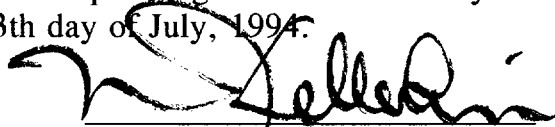
In addition, Matador Petroleum Corporation requests that this case be continued to the Examiner Docket now scheduled for August 18, 1994 in order to be consolidated for hearing with Matador Petroleum Corporation's compulsory pooling application which, if granted, would provide an alternative solution to the issues raised by Paloma Resources, Inc. in Case 11020.



W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 2265
Santa Fe, New Mexico 87504
(505) 982-4285

CERTIFICATE OF MAILING

I certify that a copy of this pleading was transmitted by facsimile to counsel for applicant this 13th day of July, 1994.



W. Thomas Kellahin

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*

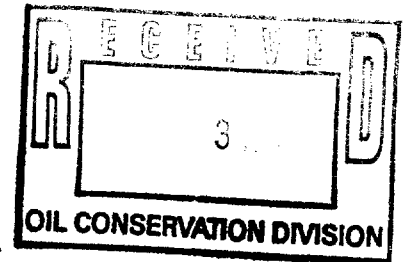
*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

July 13, 1994

HAND DELIVERED



Mr. William J. LeMay
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: REQUEST FOR ISSUANCE OF SUBPOENA
NMOCD Case 11020
Application of Paloma Resources, Inc.
for simultaneous dedication or two
non-standard proration units,
Chaves County, New Mexico

Dear Mr. LeMay:

On behalf of Matador Petroleum Corporation, I would appreciate you
issuing the enclosed subpoena in which I am seeking data from Paloma
Resources Inc. in the referenced matter.

Very truly yours,

A handwritten signature in black ink, appearing to be "W. Thomas Kellahin".

W. Thomas Kellahin

cc: Matador Petroleum Corporation

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

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

CASE NO. 11020

**THE APPLICATION OF PALOMA RESOURCES, INC.
FOR SIMULTANEOUS DEDICATION OR FOR TWO
NON-STANDARD PRORATION UNITS,
CHAVES COUNTY, NEW MEXICO.**

SUBPOENA DUCES TECUM

**TO: PALOMA RESOURCES, INC.
c/o Ernest L. Carroll, Esq.
Losee, Carson, Haas & Carroll
P. O. Box 239
Artesia, New Mexico, 88211-0239**

**Pursuant to Section 70-2-8, NMSA (1978) and Rule 1211 of the New
Mexico Oil Conservation Division's Rules of Procedure, you are hereby
ORDERED to appear at 8:15 a.m., July 20, 1994, to the offices of the Oil
Conservation Division, State Land Office Building, 310 Old Santa Fe Trail,**

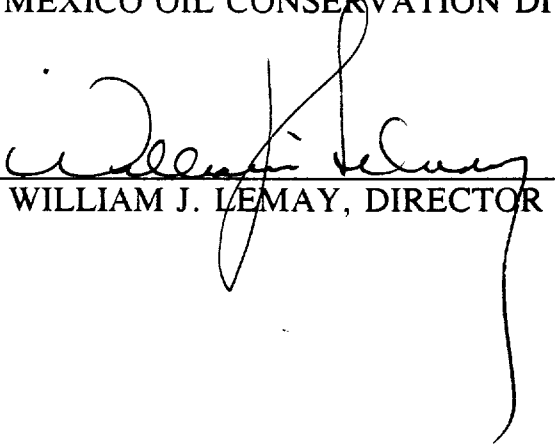
Santa Fe, New Mexico 87501 and to produce the documents and items specified in attached Exhibit A and to make available to Matador Petroleum Corporation and their attorney, W. Thomas Kellahin, for copying, all of said documents.

This subpoena is issued on application of Matador Petroleum Corporation through their attorneys, Kellahin & Kellahin, P. O. Box 2265, Santa Fe, New Mexico 87504.

Dated this 14 day of July, 1994.

NEW MEXICO OIL CONSERVATION DIVISION

BY:

A handwritten signature in black ink, appearing to read 'William J. Lemay', is written over a horizontal line. The signature is fluid and cursive, with a long vertical stroke extending downwards from the end of the signature.

WILLIAM J. LEMAY, DIRECTOR

EXHIBIT "A"

**TO SUBPOENA DUCES TECUM
TO PALOMA RESOURCES, INC.
IN NEW MEXICO OIL CONSERVATION DIVISION
CASE 11020**

PURPOSE: The purpose of this subpoena is to provide all of the information necessary for Matador Petroleum Corporation to be able to its opposition to Paloma Resources, Inc. in NMOCD Case 11020

I. PRODUCE THE FOLLOWING DOCUMENTS:

for EACH AND ALL of the Paloma Resources, Inc. operated wells in Section 29, T15S, R30E, Chaves County, New Mexico:

1. Open-hole Resistivity logs, e.g. Dual Latrologs supplying both a one-inch scale log and five-inch scale log.
2. Open-hole Porosity logs, e.g., Compensated Neutron-Litho-Density supplying both a one-inch scale log and five-inch scale log.
3. Mudlogs
4. All cased hole production logs, including but not limited to caliper logs, spinner surveys, tracer surveys.
5. Fluid data, including recombination analysis or bottom hole analysis
6. Reservoir temperature data

7. PVT data, PVT reports and gas analysis including but not limited to molecular weight and API gravity.
8. Reservoir pressure data including but not limited to bottom-hole surveys or pressures, surface pressure readings, daily tubing pressure and casing pressures, drill stem tests, build-up tests and interference tests, with relevant information as to shut-in time and production rates prior to shut-in.
9. Gas-liquid ratios and tests including a description of any and all test data and zones per well.
10. any core data and analysis including but not limited to conventional or sidewall core data and samples.
11. all production data including, but not limited to all well check records, including gauges/charts for each well on a daily basis from initial testing/completion to date showing actual production of oil, gas and water for each well per day and per month.
12. Chronological reports to include details of:
 - a. perforating and perforation locations
 - b. stimulation fluids, volumes, rates, and pressures for each treated interval
 - c. Swabbing, flowing and/or pumping results for each interval that was perforated and tested including Pre and Post stimulation results as applicable.
13. If your client has conducted any reservoir simulation which includes either of the subject wells, then provide: model software description, model parameters and assumptions, model variables, model history matching data, model predictions, subsequent modification.

14. Any petroleum engineering data used or to be used by Paloma Resources Inc. to justify its application proposed location including all pressure data, including but not limited to bottom hole pressure surveys, daily tubing pressure and casing pressure surveys, with relevant information as to shut-in time and production rate prior to shut-in;
15. Any and all reserve calculations, including but not limited to estimates of ultimate recovery, production decline curves, pressure decline curves, material balance calculations (including reservoir parameters), volumetric calculation (including reservoir parameters);
16. Any and all reservoir studies, including but not limited to drainage calculations, well interference studies, pressure studies or well communication studies;
17. Any geologic data including geologic maps, structure maps, isopachs, cross-sections, and/or logs being used by Paloma Resources, Inc. to justify its application;
18. Any and all geologic and/or engineering studies and interpretations by which Paloma Resources Inc. justifies and evaluates this application.

INSTRUCTIONS

This Subpoena Duces Tecum seeks all information available to you or in your possession, custody or control from any source, wherever situated, including but not limited to information from any files, records, computers documents, employees, former employees, consultants, counsel and former counsel. It is directed to each person to whom such information is a matter of personal knowledge.

When used herein, "you" or "your" refers to the person or entity to whom this Subpoena Duces Tecum is addressed to including all of his or its attorneys, officers, agent, consultants, employees, directors, representatives, officials, departments, divisions, subdivisions, subsidiaries, or predecessors.

The term "document" as used herein means every writing and record of every type and description in the possession, custody or control of Paloma Resources, Inc., whether prepared by you or otherwise, which is in your possession or control or known by you to exist, including but not limited to all drafts, papers, books, writings, records, letters, photographs, computer disks, tangible things, correspondence, communications, telegrams, cables, telex messages, memoranda, notes, notations, work papers, transcripts, minutes, reports and recordings of telephone or other conversations or of interviews, conferences, or meetings. It also includes diary entries, affidavits, statements, summaries, opinions, reports, studies, analyses, evaluations, contracts, agreements, jottings, agenda, bulletins, notices, announcements, plans, specifications, sketches, instructions charts, manuals, brochures, publications, schedules, price lists, client lists, journals, statistical records, desk calendars, appointment books, lists, tabulations sound recordings, computer printouts, books of accounts, checks, accounting records, vouchers, and invoices reflecting business operations, financial statements, and any notice or drafts relating to the foregoing, without regard to whether marked confidential or proprietary,. It also includes duplicate copies if the original is unavailable or if the duplicate is different in any way, including marginal notations, from the original.

LAW OFFICES

LOSEE, CARSON, HAAS & CARROLL, P. A.

ERNEST L. CARROLL
JOEL M. CARSON
DEAN B. CROSS
JAMES E. HAAS
A. J. LOSEE
MARY LYNN BOGLE

300 YATES PETROLEUM BUILDING
P. O. DRAWER 239
ARTESIA, NEW MEXICO 88211-0239

TELEPHONE
(505) 746-3505
TELECOPY
(505) 746-8318

FAX TRANSMITTAL DATE: 6/28/94

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: William J. LeMayFIRM: nmocd

FAX NO. ()

FIRM NO.

SENDER: Ernest L. CarrollTOTAL NUMBER OF PAGES (INCLUDING THIS SHEET): 5

IF YOU DO NOT RECEIVE ALL THE PAGES INDICATED ABOVE,
PLEASE CALL US BACK AS SOON AS POSSIBLE AT:

(505) 746-3505

ASK FOR: Dandy

MESSAGE:

NOTE: The information contained in this facsimile message is attorney/client privileged and confidential information intended only for use by the individual or entity named above. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivery to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is in error. If you have received this facsimile in error, please immediately notify us by collect telephone call and return the original message to us at the above address via the U. S. Postal Service.

LAW OFFICES

LOSEE, CARSON, HAAS & CARROLL, P. A.

ERNEST L. CARROLL
JOEL M. CARSON
DEAN B. CROSS
JAMES E. HAAS
A. J. LOSEE
MARY LYNN BOGLE

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P. O. DRAWER 239
ARTESIA, NEW MEXICO 88211-0239

TELEPHONE
(805) 746-3505

TELECOPY
(805) 746-6316

June 28, 1994

VIA FACSIMILE AND FIRST CLASS MAIL

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

11020

Re: In the Matter of the Application of Paloma
Resources, Inc., for the Concurrent and
Simultaneous Dedication of a Morrow Gas
Proration Unit or, in the Alternative,
Creation of New Pool, and the Establishment
of Non-standard Proration Units, Chaves
County, New Mexico

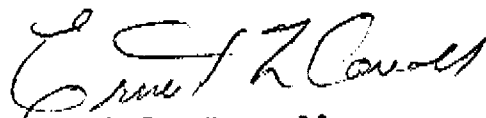
Dear Mr. LeMay:

I am enclosing herewith for filing, Paloma Resources, Inc.'s
Application as referenced above, in duplicate. I would ask that
this matter be heard on July 21, 1994.

Thank you for your assistance.

Very truly yours,

LOSEE, CARSON, HAAS & CARROLL, P.A.


Ernest L. Carroll

ELC:kth
Encl.

xc w/encl: Mr. Gene Lee

BEFORE THE OIL CONSERVATION DIVISION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF :
PALOMA RESOURCES, INC. FOR THE :
CONCURRENT AND SIMULTANEOUS DEDICATION :
OF A MORROW GAS PRORATION UNIT OR, :
IN THE ALTERNATIVE, CREATION OF A NEW :
POOL, AND THE ESTABLISHMENT OF NON- :
STANDARD PRORATION UNITS, CHAVES :
COUNTY, NEW MEXICO :

CASE NO.

11090

APPLICATION

COMES NOW Paloma Resources, Inc., by and through its attorneys, Losee, Carson, Haas & Carroll, P. A. (Ernest L. Carroll), and in support of its application, respectfully states:

1. Applicant is the operator of the S/2 of Section 29, Township 15 South, Range 30 East, NMPM, Chaves County, New Mexico, upon which it operates two wells, both drilled and completed within the Morrow formation. These two wells are presently located within the boundaries of Little Lucky Lake Pool.

2. The S/2 of Section 29 was originally dedicated as a Morrow gas proration unit for the Peery Federal #3 Well located 2140' from the West line and 1,820' from the South line in Unit K of said Section 29. This well was completed in the interval between 9,962' and 9,977' below the surface of the ground. The Peery Federal #3 Well has been temporarily shut-in and its proration unit temporarily reassigned to the Peery Federal #2 Well, located 660' from the South line and 1,980' from the East line in Unit O of said Section 29. The Peery Federal #2 Well is completed in the interval between 9,992' and 10,006'.

3. Both wells are classified as Morrow producers, but because of extensive faulting are not in communication with each other. Applicant seeks to simultaneously dedicate both the Peery Federal #2 Well and the Peery Federal #3 Well for concurrent production from the S/2 of Section 29 spacing unit as gas producers.

4. Alternatively, Applicant seeks the creation of a new Morrow gas pool covering the SE/4 of Section 29, and for the creation of a non-standard proration unit for said Peery Federal #2 Well for production from that newly-created pool. In the event that a new pool is created, Applicant would further seek the creation of a non-standard proration unit for the SW/4 of Section 29 for production from the Peery Federal #3 Well.

5. The concurrent and simultaneous dedication of the Peery Federal #2 Well and the Peery Federal #3 Well to the S/2 of Section 29 for production from the Little Lucky Lake Morrow gas pool is feasible in accordance with good conservation practices and will otherwise prevent waste and protect correlative rights.

6. Alternatively, the creation of a new Morrow gas pool covering the SE/4 of Section 29, and the creation of non-standard proration units for both the Peery Federal #3 Well for production from the Little Lucky Lake Morrow gas field and for the Peery Federal #2 Well for production from a new Morrow gas pool in the SE/4 of Section 29 is feasible in accordance with good conservation practices and will otherwise prevent waste and protect correlative rights.

WHEREFORE, Applicant requests:

A. That this Application be set for hearing before an Examiner and that notice of said hearing be given as required by law;

B. That upon hearing the Division enter its order granting permission to Applicant to concurrently and simultaneously dedicate the Peery Federal #2 Well and the Peery Federal #3 Well to the S/2 of Section 29 for production of gas from the Morrow formation;

C. Alternatively, that upon hearing the Division enter its order creating a new Morrow gas pool covering the SE/4 of Section 29 and for the creation of a non-standard proration unit for the Peery Federal #3 Well for production from the Little Lucky Lake Pool and for the Peery Federal #2 Well for production from the newly created Morrow gas pool; and

D. For such other and further relief as may be just in the premises.

LOSEE, CARSON, HAAS & CARROLL, P.A.

By: 
Ernest L. Carroll
P. O. Drawer 239
Artesia, New Mexico 88211-0239
(505) 746-3505

Attorneys for Applicant

County Chaves Pool Little Lucky Lake-Morrow Gas

TOWNSHIP 15 South Range 30 East NMPM

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Description: $\frac{5}{2}$ Sec. 29 (R-7917, 5-13-85)

Ext: $\frac{SE}{4}$ Sec. 30, $\frac{W}{2}$ and $\frac{NE}{4}$ Sec. 31 (R-8041, 10-3-85)

Ext: $\frac{N}{2}$ Sec. 29 (R-8149, 2-14-86) Ext: $\frac{SW}{4}$ Sec. 30 (R-8461, 6-25-87)

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. 11,020

APPLICATION OF PALOMA RESOURCES,)
 INC.)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGSEXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

August 18, 1994

Santa Fe, New Mexico

This matter came on for hearing before the Oil
 Conservation Division on Thursday, August 18, 1994, at
 Morgan Hall, State Land Office Building, 310 Old Santa Fe
 Trail, Santa Fe, New Mexico, before Steven T. Brenner,
 Certified Court Reporter No. 7 for the State of New Mexico.

* * *

I N D E X

August 18, 1994
 Examiner Hearing
 CASE NO. 11,020

PAGE

APPEARANCES

3

APPLICANT'S WITNESSES:

GENE LEE

Direct Examination by Mr. Carroll
 Examination by Examiner Catanach

4

22

STEVEN SPEER

Direct Examination by Mr. Carroll
 Examination by Examiner Catanach
 Further Examination by Mr. Carroll

26

43

45

REPORTER'S CERTIFICATE

47

* * *

E X H I B I T S

Identified

Admitted

Exhibit 1	6	21
Exhibit 2	8	21
Exhibit 3	8	21
Exhibit 4	10	21
Exhibit 5	11	21
Exhibit 6	12	21
Exhibit 7	12	21
Exhibit 8	13	21
Exhibit 9	14	21
Exhibit 10	15	21
Exhibit 11	16	21
Exhibit 12	17	21

E X H I B I T S (Continued)

	Identified	Admitted
Exhibit 13	19	21
Exhibit 14	27	43
Exhibit 15	30	43
Exhibit 16	31	43
Exhibit 17	34	43
Exhibit 18	35	43
Exhibit 19	35	43
Exhibit 20	36	43
Exhibit 21	37	43
Exhibit 22	38	43

* * *

A P P E A R A N C E S

FOR THE APPLICANT:

LOSEE, CARSON, HAAS & CARROLL, P.A.
300 American Home Building
Post Office Drawer 239
Artesia, New Mexico 88211-0239
By: ERNEST L. CARROLL

* * *

1 WHEREUPON, the following proceedings were had at
2 4:55 p.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 11,020, which is the Application of Paloma Resources, Inc.,
5 for simultaneous dedication of, in the alternative, pool
6 creation, pool contraction and for two nonstandard gas
7 proration units, Chaves County, New Mexico.

8 Are there appearances in this case?

9 MR. CARROLL: Yes, Mr. Examiner, I'm Ernest
10 Carroll of the Artesia law firm of Losee, Carson, Haas and
11 Carroll, and I'm here on behalf of Paloma, the Applicant,
12 and I have two witnesses.

13 EXAMINER CATANACH: Okay. Can I get the
14 witnesses to please stand and be sworn in?

15 (Thereupon, the witnesses were sworn.)

16 MR. CARROLL: Call Mr. Gene Lee.

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

20 DIRECT EXAMINATION

21 BY MR. CARROLL:

22 Q. Would you please state your name, address, and
23 occupation for the record?

24 A. Gene Lee, 1306 Meadow Lane, Roswell. I'm
25 engineer for Paloma Resources.

1 Q. Mr. Lee, you're also a one-third owner of Paloma
2 Resources, are you not?

3 A. Yes, that's correct.

4 Q. Prior to this date, have you had an occasion to
5 testify as a practical petroleum engineer and as an owner
6 with respect to oil and gas matters?

7 A. Yes, I have.

8 Q. And with respect to the pending Application of
9 Paloma resources that the Examiner is hearing today, are
10 you familiar with that and have prepared the exhibits --
11 part of the exhibits to be presented?

12 A. Yes, that's correct.

13 MR. CARROLL: Mr. Examiner, are Mr. Lee's
14 credentials as a practical petroleum engineer and owner
15 acceptable?

16 EXAMINER CATANACH: Yes, sir, they are.

17 Q. (By Mr. Carroll) Mr. Lee, would you basically
18 state the purpose behind this Application, what Paloma is
19 trying to accomplish?

20 A. Paloma purchased this lease from Texaco in April
21 of 1992 as a lease that was going to be plugged and
22 abandoned. It had one producing well that was fixing to be
23 abandoned and that was producing from the Morrow at that
24 time, which was the Peery Fed Number 3.

25 We picked this lease up because we felt there

1 were other -- other potential in wellbores remaining on the
2 lease and went about to -- pursuing development of these --
3 of additional reserves out of this lease that was going to
4 be plugged.

5 Q. All right. Now, Exhibit 1 that you've prepared
6 for today actually shows Section 29, which is -- All but
7 the 40 acres up in the very northwest of the northwest
8 quarter is what you picked up from Texaco; is that correct?

9 A. Yes, that's correct, 600 acres, excluding the
10 northwest-northwest of Section 29.

11 Q. And the Peery Number 3 was the only producing
12 well at the time that you acquired the lease; is that
13 correct?

14 A. That well was not producing at the time we bought
15 it. It was the last producing well on there, and it had
16 loaded up and had some problems which we found out after we
17 purchased it. But it was the last well to produce on that
18 lease.

19 Q. Okay. And that well is located 2140 feet from
20 the west line and 1820 feet from the south line of Section
21 29; is that correct?

22 A. Yes, that's correct.

23 Q. Now, subsequent to that time, an additional well,
24 the Paloma Number 2, certain work was performed on that
25 well; is that correct?

1 A. Yes, the Paloma Number 2 well was the original
2 Morrow discovery for the Little Lucky Lake-Morrow Pool.

3 That zone in the Morrow was perforated and
4 produced for a period of four months, and Texaco abandoned
5 it, moved over and recompleted the Peery Number 3 from the
6 Devonian back to the Morrow on it. And the Number 2 Peery
7 Fed then was in a TA status from there, from that time in
8 1985 when that work was done, until the time at which we
9 had bought it.

10 Q. All right. At the present time, the -- Of
11 course, the Morrow is a 320-acre proration unit standard --

12 A. Yes.

13 Q. -- is it not?

14 A. Yes, it is.

15 Q. And the south half of Section 29 was dedicated to
16 the Paloma 3; is that correct?

17 A. Yes, that's correct.

18 Q. Subsequent to your completion work on the Paloma
19 2, the Peery Number 3 has been temporarily abandoned with
20 permission from the Oil Conservation Division; is that
21 correct?

22 A. That's correct.

23 Q. And the allowable at least temporarily assigned
24 to the Peery Number 2 so that you could test it and
25 determine if it was going to be productive?

1 A. That's correct.

2 Q. Before we go any further into the reasons why and
3 what -- why you're seeking the simultaneous dedication as
4 one of the alternatives, let's turn to Exhibit Number 2 and
5 take care of the housekeeping matters of notice and what
6 have you with respect to this Application.

7 Exhibit Number 2 is what?

8 A. Exhibit Number 2 is a plat showing the acreage in
9 question covering the entire Little Lucky Lake-Morrow Pool
10 and the offset operators for a mile around it.

11 Q. The heavy dark line is what has been -- is
12 presently known as the Little Lucky Lake Pool; is that
13 correct?

14 A. That's correct.

15 Q. And in each one of the sections that appear here
16 are the ownership, either the operator or the mineral
17 owners to whom notice was given; is that correct?

18 A. Yes, we sent letters by certified mail to all of
19 these people.

20 Q. Exhibit Number 3 is, in fact, the certificate of
21 compliance with Rule 1207, is it not?

22 A. Yes, this shows --

23 Q. And it -- Excuse me. And it -- As part of that
24 exhibit, it has an Exhibit A listing all of the persons to
25 whom notification was given, does it not?

1 A. Yes, that's correct.

2 Q. And it also has copies of the letters of notice
3 and the return receipts; is that correct?

4 A. Right.

5 Q. All right. Now, with respect to the list that is
6 shown on Exhibit A to Exhibit Number 3, there are three
7 companies' names who actually do not appear on your plat on
8 Number 2; is that correct?

9 A. Yes. I believe that's Lowbar Petroleum and
10 the --

11 Q. -- Read and Stevens and Bass Enterprises?

12 A. -- Read and Stevens and Bass Enterprises.

13 Q. What did you find out after you sent these
14 individuals notices concerning this Application?

15 A. Read and Stevens and Bass Enterprises stated they
16 no longer held any interest in that area. And Lowbar
17 Petroleum, we got the letter returned back undeliverable,
18 and they have since been out of business.

19 Q. All right, and their interest -- so after -- Just
20 out of an abundance of caution, you sent notices to
21 everyone, but you've since found that those three people no
22 longer own interest out there --

23 A. That's correct.

24 Q. -- within the area that the Rule provides that
25 you must give notice?

1 A. Yes, that's correct.

2 Q. All right. Now, you did -- With respect to the
3 Application that -- or the notices that you sent out, you
4 did receive, actually, three waivers with respect to the --
5 to this notification that was sent out; is that correct?

6 A. That is correct. The Amoco, the Tech Oilfield
7 Research Corporation and Paul Slayton all sent back waivers
8 of any objection.

9 Q. All right. And that's Exhibit 4?

10 A. Yes, that is.

11 Q. All right. Let's -- with respect -- Before we go
12 into Exhibits 5 and 6, just so that the Examiner knows
13 where we're going, is it not your position that due to
14 faulting in the area -- which your geologist, Mr. Speer,
15 will discuss later on in this case -- that you actually
16 believe there are two Morrow pools out there, or two Morrow
17 formations that are producing; is that correct?

18 A. Yes, I believe we have a pressure, gas, oil and
19 fluid analysis, as well as a great deal of 3-D seismic work
20 that were performed out there. The pressure, oil and gas
21 analysis shows a drastic difference in composition, and I
22 think backed up by the presence of a major fault in there
23 that Mr. Speer will discuss, shows that the difference
24 between the two wells is such to prove that there are
25 separate reservoirs there.

1 Q. Okay. Well, with that general statement, let's
2 go into Exhibit 5, and for the record, would you identify
3 what it is and then give an explanation of its significance
4 to this case?

5 A. Exhibit Number 5 is a wellbore schematic diagram
6 of the Peery Fed Number 3. It's in Unit K of Section 29,
7 15-30. It shows the current wellbore configuration, as it
8 currently is.

9 One thing that you might notice is the fact that
10 over a period of time, while this well was producing from
11 the Devonian, they had numerous casing leaks and therefore
12 went ahead, upon trying their completion in the Morrow,
13 they ran a string of 2 7/8 tubing to a depth of 10,174 feet
14 and cemented it back completely to the surface.

15 Before they did that, they perforated, per BLM
16 requirements, certain areas behind the 5 1/2 in order to
17 satisfy the BLM's plugging procedures.

18 This did, however, leave some voids behind the
19 casing there that, if you did try to do a completion
20 attempt up the hole from the Morrow, that could cause you
21 problems due to no cement behind the pipe.

22 Q. Now, what is the producing interval in the Number
23 3 well, which is the well that is presently temporarily
24 abandoned?

25 A. That well is producing from the Morrow at a depth

1 of 9962 to 9977, and it was perforated and completed as a
2 natural completion in 1986, September of 1986.

3 Q. All right. Would you turn to your Exhibit Number
4 6, and would you identify it for the record and discuss its
5 significance?

6 A. This also is a wellbore schematic, however it
7 covers the Peery Federal Number 2 wellbore that is
8 currently producing from the Morrow.

9 It shows the well to total depth, casing, and the
10 perfs from the Ellenburger all the way back up to the
11 existing Morrow perfs.

12 Q. All right. What is the depth of the perforations
13 in the Morrow that this well is producing from?

14 A. Currently this well is producing from Morrow
15 Perforations that are at 9992 to 10,006. These were
16 perforated April 23rd, 1994.

17 Q. All right. And that is a different depth than
18 the Number 3 well; is that correct?

19 A. Yes, it is. It is a little deeper than what the
20 Number 3 is perforated.

21 Q. All right. Would you turn to Exhibit Number 7,
22 and would you explain what Exhibit Number 7 is, identify it
23 and then its significance?

24 A. This Exhibit Number 7 is a bottomhole pressure
25 buildup conducted on the Peery Federal Number 3 on April

1 23rd of 1994 to measure the actual bottomhole pressure
2 remaining in the Peery Fed Number 3.

3 Q. And what was that bottomhole pressure that was
4 remaining back in April of this year?

5 A. That bottomhole pressure was roughly 271 pounds.

6 Q. All right. Now, this is the pressure that was
7 existing in this well at the time it was shut in; is that
8 correct?

9 A. That's correct. This well was shut in on the
10 23rd, and the bombs were placed in it while it was flowing.
11 The well was shut in and left shut in for 85 hours.

12 At the time after we had shut in the Number 3,
13 then we went over and ran bombs in the Peery Number 2 and
14 started doing our four-point completion test on it.

15 Q. All right. Would you turn to Exhibit Number 8
16 and identify it?

17 A. Exhibit Number 8 is the bottomhole pressures, the
18 drawdown and the C-122 for the four-point test on this
19 well.

20 Q. All right. And this was the test that was run,
21 as you just described, right after you ran the one on the
22 Number 3 well; is that correct?

23 A. Yes, that's correct.

24 Q. What was the bottomhole pressure that you found
25 in this Number 2 well?

1 A. Well, it was drastically higher. The initial
2 pressure on this well was 3427 pounds.

3 Q. So that was -- The 3407 [sic] pounds is compared
4 to 271 pounds; is that correct?

5 A. Yes, that's correct.

6 Q. Now, this 3400-pound pressure from your study, is
7 this anywhere approaching what one would have thought to be
8 what -- normally virgin pressure in this area?

9 A. This was a virgin pressure in this area for the
10 Morrow at this depth.

11 Q. Would you turn to Exhibit Number 9? What is
12 Exhibit Number 9?

13 A. Exhibit Number 9 is a gas analysis that was run
14 on the Peery Federal Number 3 by Precision Service, an
15 independent testing company, to get a gas analysis on the
16 Peery Fed Number 3.

17 Q. All right. And this exhibit is composed of
18 several pages.

19 Was there also another analysis run --

20 A. Yes.

21 Q. -- with respect to the product coming from this
22 Number 3 well?

23 A. The following two pages are an analysis of the
24 liquid content, the condensate breakdown of the liquids
25 from the Peery Number 3.

1 Q. Okay. Now, Exhibit Number 10 is the same kind of
2 analysis that was run on the Peery State Number 2 well; is
3 that correct?

4 A. That's correct. It also is a gas analysis and an
5 analysis -- and breakdown of the oil composition as well.

6 Q. Would you tell the Examiner what you found when
7 you compared the two analyses, both with respect to the gas
8 and to the liquids coming from these two wells?

9 A. The -- As evident on the analysis, the Peery
10 Number 2 has a substantially higher BTU content than the
11 Number 3.

12 The oil composition also shows a considerable
13 amount of heavier components in it as well. And this shows
14 that the gases are very distinctly different.

15 Q. All right. Well, then, Mr. Lee, in your opinion,
16 your expert opinion here, you now have shown that there are
17 distinct differences between the Number 2 and the Number 3
18 Peery wells with respect to pressure, and you have found
19 distinct differences now in the product, both in the gas
20 analysis and in the liquids analysis.

21 In your opinion, what conclusions can you draw or
22 have you drawn based on this evidence?

23 A. The conclusions I've drawn from this evidence is
24 the fact that we have two separate reservoirs. The
25 products coming from these two wells are distinctly

1 separate, indicating that there are -- they are distinctly
2 different.

3 Q. Now, you have gone further to analyze both the
4 Number 3 and the Number 2 well as to reserves, have you
5 not?

6 A. Yes, I have.

7 Q. Okay. Exhibit 11, would you identify what that
8 exhibit is for the Examiner?

9 A. Exhibit 11 is a material balance equation for a
10 gas well on the Peery Fed Number 3, and using the P over Z
11 versus cum shows the remaining reserves in the Peery
12 Federal Number 3.

13 Also attached and made a part of that exhibit is,
14 then, an economics run showing what ultimate dollar amount
15 we're looking at as far as these reserves.

16 Q. Your study here then predicts what kind of
17 reserves remaining in the Peery Number 3 well?

18 A. We're -- These reserves show a remaining amount
19 of gas, approximately a half a BCF left, even at that low a
20 pressure.

21 Q. All right. And with respect to the economics,
22 what does your study that you've attached as part of this
23 Exhibit 11 show? What kind of economic impact would be
24 lost if this well were just permanently plugged and
25 abandoned or walked away from?

1 A. Well, trying to use a conservative figure of \$17
2 condensate and \$1.75 gas off of this well, we're looking at
3 a continued revenue of \$350,000, discounted at 20 percent.

4 Total cash flow, we're looking at in excess of
5 half a million dollars.

6 And total of production taxes to the State of New
7 Mexico in excess of \$69,000.

8 Q. With respect to the Peery Number 2, you've
9 likewise performed the same kind of reserve analysis and
10 economic analysis; is that correct?

11 A. Yes, I did. I obtained another P-over-Z-versus-
12 cum gas plot that I did after we had obtained -- After we
13 had sold 132,632 MCF and 6260 barrels of oil, we did
14 another bottomhole pressure, which will be one of the
15 following exhibits.

16 Based off of that data, that gave us points to
17 work off of to calculate our remaining reserves in this
18 well also.

19 Q. And what is that?

20 A. We expect this well to produce at 2.07 BCF of
21 gas.

22 Q. And in dollar terms, what kind of reserves are we
23 talking about, money or economics?

24 A. A substantial amount. We're looking at around
25 \$4 million worth of revenue there. \$391,000 worth of

1 production taxes to the State of New Mexico.

2 And since this is a federal lease, half of the
3 royalties, we're looking at another \$344,000 worth of
4 revenue off of it as well.

5 Q. Mr. Lee, with respect -- without getting the --
6 your Application granted, the only alternative you would
7 have is to leave one of these wells shut in while the other
8 one is producing; is that correct?

9 A. Yes, that's correct.

10 Q. Is that -- or does that present, in your opinion,
11 a real problem?

12 A. It does.

13 I believe from what we've seen, from the data
14 we've gathered, that there's no way that the Peery Federal
15 Number 2 can drain and produce the remaining reserves that
16 exist under the Peery Federal Number 3, and vice-versa.
17 The Number 3 cannot drain the Number 2, which is really
18 obvious by the pressure data.

19 However, since the Number 3 well is getting
20 fairly low pressure, extended shut-in periods on it while
21 we alternate from one well to the other causes some
22 problems, because every time we have shut it in for a
23 buildup previous to the ones that we've done, then it
24 starts -- it has trouble coming back on line and
25 maintaining its productivity that it was before it was shut

1 in.

2 Q. Well then, do you believe there's a real
3 probability that you could lose the well and lose some of
4 these reserves which, in gross dollars, let's say in the
5 Number 3, if you left it shut in, of some half million
6 dollars?

7 A. That's correct.

8 Q. Why don't we discuss now Exhibit Number 13? What
9 is that?

10 A. Exhibit Number 13 is the bottomhole pressure that
11 I was referring to after producing this well for 132,632
12 MCF and 6260 barrels of condensate.

13 This bottomhole pressure was obtained after
14 producing that volume, strictly for the purpose of getting
15 the bottomhole pressure to be able to calculate an accurate
16 P-over-Z-versus-cum plot and using material balance to get
17 accurate reserves.

18 Q. At the present time, the Number 3 well has been
19 shut in since April; is that correct?

20 A. The Number 3 has been shut in since April 23rd
21 when we turned on the Number 2.

22 Q. And in your mind, is there some risk at this
23 point in time that you could have damaged the Number 3
24 well?

25 A. It's a very distinct possibility.

1 Like I say, you know, with the bottomhole
2 pressure as low as it is, it's not going to take a whole
3 lot to damage it.

4 And with that kind of pressure, any kind of skin
5 damage whatsoever is going to be hard to remove, just due
6 to the fact that there's not enough bottomhole pressure to
7 bring back any stimulation that you really try to do on it,
8 even if you use nitrogen or CO₂ to energize your fluid.

9 Q. In your mind then, is that good reason to
10 expedite doing whatever is going to be done with respect to
11 this problem?

12 A. Yes, it is. We're talking around half a million
13 dollars. That's substantial.

14 Q. You have presented an Application that asks, in
15 the alternative, either the simultaneous dedication of
16 these two wells to this single proration unit to allow
17 production or, in fact, a recreation of a new pool and
18 withdrawing the southeast quarter of the southwest quarter,
19 and creating a separate pool -- or excuse me, the southeast
20 quarter, and creating a 160 proration and a nonstandard
21 proration unit.

22 I think that Mr. Catanach would like to have your
23 opinion as to which of the alternatives you would prefer to
24 have and why, since you have at least proposed it as an
25 alternative Application.

1 A. I feel like producing both of these wells
2 simultaneous and concurrent, number one, would be
3 justifiable due to the fact that we are showing that due to
4 the composition of the gas and oil and pressure
5 differential, that there is two separate Morrow zones that
6 are not in communication.

7 This would allow each well to drain this
8 individual quarter section that it is in, because they are
9 not in communication and cannot drain one well to the other
10 in the south half.

11 Q. With respect to the traditional issues that are
12 always -- must be viewed by the Division, that is, the
13 prevention of waste and the protection of correlative
14 rights, do you feel granting of the Application -- in
15 particular, the preferred method, the simultaneous
16 dedication -- would that in fact prevent waste and protect
17 correlative rights?

18 A. It certainly would. I believe that would be the
19 best alternative.

20 MR. CARROLL: Mr. Examiner, I would move
21 admission of Exhibits 1 through 13 at this time.

22 EXAMINER CATANACH: Exhibits 1 through 13 will be
23 admitted as evidence.

24 MR. CARROLL: And I would have no further
25 questions of this witness.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Lee, take me back to the history of what transpired. You bought these -- You bought this lease from Texaco when?

A. This lease was purchased from Texaco. The effective date of it was 4-1 of 1992.

At the time when we bought it, there was no production coming from the lease.

After we purchased it, we babysat that Number 3, we went out there basically and dropped three soap sticks in it and made some swab runs and found that it was loaded up and kicked it off. And we put it back on line at a million a day.

After that, we re-entered the Number 2 and took it on down back to the Devonian and re-established Devonian production out of it.

After that, we re-entered the Peery Number 1 --

Q. Hang on a second, hang on a second.

A. -- and went from that point.

So we re-entered --

Q. -- re-entered the Number 2 and you re-established Devonian production?

A. That's correct.

Q. That was all -- That all took place in April of

1 1992, or --

2 A. The Morrow -- The Number 2 Devonian was
3 re-established in 1993, first part of 1993.

4 Q. Okay.

5 A. And we were producing it from the Devonian until
6 such time as it -- the price of oil went down, and it was
7 beginning to become uneconomical to haul water in at the
8 rate of the oil it was producing.

9 At that time we decided to go ahead and come back
10 up to the Morrow in it.

11 Q. When was this?

12 A. This was April of 1994.

13 Q. Okay, so that's when you came back up and
14 recompleted the Number 2 --

15 A. Yes, that's correct.

16 Q. -- to the Morrow?

17 A. From the Devonian.

18 Q. From the Devonian. Did you establish production
19 in the Number 2?

20 A. We established Devonian production in 1993 in the
21 Number 2. And then after a year we've -- it became
22 uneconomical, so we plugged back April of this year to the
23 Morrow in the Number 2.

24 Q. All right. Had the Number 2 ever been produced
25 in the Morrow?

1 A. Yes, the Number 2 was perforated in the top part
2 of the Morrow, which Mr. Speer will discuss. And they
3 produced it for four months and made a total of a hundred
4 and -- I think it's on here somewhere -- 155,000 MCF out of
5 it before it was abandoned.

6 Q. The Number 3 had always been a Morrow producer?

7 A. The Number 3 was originally a Devonian well also.

8 Q. Okay.

9 A. But when we obtained it, it had already been
10 moved back to the Morrow.

11 Q. Okay, I think I'm with you.

12 So the Number 2 was recompleted to the Morrow,
13 and you've been producing that since April?

14 A. Yes, that's correct.

15 Q. Number 3 is currently being -- It's currently
16 shut in?

17 A. Currently shut in, pending approval from the
18 Commission on what we can do with it.

19 Q. Got you, okay.

20 What other production in this pool is there
21 currently?

22 A. In this pool there is currently one other --
23 There are two other wells that are perforated in this pool
24 in Section 30.

25 McClellan's in Section 30 had the Number 1 Big

1 Lucky Lake well, and they recently shut it in and
2 recompleted an old Devonian test in the northeast of the
3 southeast and established Morrow production out of it, and
4 it's currently producing at 570 MCF per day.

5 Q. So there's one well in the southeast quarter of
6 Section 30 that's currently producing?

7 A. Right.

8 Q. Is that it?

9 A. Yes.

10 Q. Okay, let's see here. Now, it's your opinion
11 that the Number 2 and the Number 3 are producing from two
12 different zones in the Morrow?

13 A. I feel that they're in separate zones in the
14 Morrow. They may be separate sands, I'm not sure. Mr.
15 Speer will address that more in detail.

16 But due to the amount of gas that the Number 3
17 has produced -- The Number 3 has produced in excess of 3
18 BCF, and quite frankly, I was really surprised to find
19 virgin pressure in the Number 2. And that indicates to me
20 that without a doubt they are producing from two separate
21 zones from the Morrow.

22 Q. Is that gas analysis from the two different wells
23 -- does that vary enough, to you, to indicate that that's
24 not coming from the same pool?

25 A. Yes, it does, because I contacted McClellan's by

1 telephone to ask them what they -- what kind of BTU content
2 that they had out of their well in Section 30.

3 And out of both of those wells in Section 30,
4 both them -- The Big Lucky Lake Number 1 was the original
5 one to produce out of the Morrow. It made over a BCF when
6 they shut it in to produce their second well in there, and
7 both those were in the 1240- to 1270-BTU range, both wells
8 were.

9 And then on our Peery Number 2, we see a
10 tremendous increase in the BTU of the gas on it. From 1287
11 to 1617 is a -- That's way heavy. That is heavier than a
12 lot of casinghead gas.

13 EXAMINER CATANACH: Okay, let's hear the
14 geologist and see what he has to say.

15 I've got no further questions.

16 STEVEN W. SPEER,
17 the witness herein, after having been first duly sworn upon
18 his oath, was examined and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. CARROLL:

21 Q. Would you please state your name, address and
22 occupation?

23 A. My name is Steven W. Speer. I live in Roswell,
24 New Mexico. I'm a consultant geologist for Paloma
25 Resources.

1 Q. Mr. Speer, have you had an occasion to previously
2 testify before the Oil Conservation Division and have your
3 credentials accepted as a petroleum geologist?

4 A. Yes, I have.

5 Q. Have you -- Are you familiar with the Application
6 of Paloma Resources that is currently pending before this
7 Examiner, and have actually performed studies with respect
8 to that Application and prepared exhibits?

9 A. Yes, sir.

10 MR. CARROLL: Are Mr. Speer's credentials
11 acceptable?

12 EXAMINER CATANACH: Yes, sir, they are.

13 Q. (By Mr. Carroll) Let's turn to Exhibit Number
14 14, Mr. Speer, and could you identify what that exhibit is,
15 basically?

16 A. Okay, that's an exhibit summarizing pertinent
17 reservoir data for both the Peery Number 2 and the Number
18 3.

19 I built this just to show on one sheet of paper
20 the major differences that we see in the fluid contents and
21 pressure data on the two wells, noting the number as well
22 as show their spatial relationship there.

23 And the three geologic studies have shown that
24 they're producing out of two separate sands,
25 stratigraphically separated sands, the "A" sand being the

1 upper sand, the "B" sand being the lower sand.

2 Bottomhole pressure tests taken on approximately
3 the same date: 271 pounds in the Number 3, 3427 in the
4 Number 2.

5 Gas analysis is vastly different: 1284 BTU on the
6 Number 3, 1613 on the Number 2.

7 And on a chromatograph breakdown you'll note that
8 a real telling point on the chromatograph breakdown is the
9 methane content in the Number 3 is approximately 74.5
10 percent methane, as opposed to 55.3 percent in the Number
11 2. Correspondingly, to the BTU content, there's
12 significantly heavier content in the gas in the Number 2.

13 So basically again, this is just a summary
14 showing that these -- If you just look at the fluids
15 produced out of these two wells, you'd almost have to say
16 there's no communication at all between that, just looking
17 at what comes out of the ground.

18 Q. With respect to Exhibit 14, I notice that some of
19 the wells are open circles, and some of them are solidly
20 blacked in. Is that -- What is the significance of that?

21 A. Well, I guess you've got to go back to the
22 history of this field.

23 The history of this field, it was a deep Devonian
24 play developed by Texaco back in the late Fifties. And
25 these -- all these wells -- I guess a person could probably

1 go back and get this best, if we want to talk the history
2 of this thing, looking at Exhibit Number 1 with the well
3 names, showing the cross-section.

4 This was initially a Devonian play kicked off in
5 the late Fifties. All the wells that have names attached
6 to these, attached to them, were deep tests. With the
7 exception of probably the Big Lucky Lake Number 1, these
8 were all taken in the Devonian.

9 And initially the drilling was started by Texaco
10 there in 29. All the wells in Section 29 were Devonian
11 tests, like I said, drilled in the late Fifties, and that
12 was the emphasis of the play and the drilling activity out
13 there.

14 All the wells that are shown there are -- that
15 have names attached, are drilled at least to the base of
16 the Pennsylvanian. And like I said, the majority are
17 Devonian and deeper tests, the Ellenburger tests.

18 The wells that don't have any name out here on
19 the periphery are all Permian tests and really have no
20 bearing on this.

21 So --

22 Q. There is a --

23 A. -- the ones with the black circles are oil wells,
24 and --

25 Q. Okay. Now, later on you will present a cross-

1 section, and that is what the dotted line on Exhibit Number
2 1 shows?

3 A. Yes, that is -- will be our -- I'm not sure what
4 the number is on our exhibit. I believe it's our last
5 exhibit.

6 Q. Yes. All right, would you turn to Exhibit Number
7 15 and describe for the record what it is and then give its
8 significance, if you would?

9 A. Okay, Exhibit 15 is a production history for all
10 the wells that have produced in the Little Lucky Lake-
11 Morrow reservoir.

12 And the stratigraphic studies, I've broken them
13 out based on the -- Like I mentioned before, there are two
14 primary sands that produce in this reservoir, the "A" sand
15 being an upper sand, the "B" being the lower. And what
16 I've done is shown cumulative production from each sand --
17 each well, showing production from which sand it was.

18 On the left side, the last production data we
19 have available from the state is 12-93 production, and
20 that's in a daily rate. Oil on the top, gas daily rates in
21 the middle, and on the right we have cumulative production
22 in barrels of oil and millions of cubic feet of gas in the
23 middle. The top date is the date of initial production,
24 the bottom date is date of abandonment if the well was
25 abandoned.

1 As you can see, primarily on the west side of the
2 field they're all "A" sand producers. And the only sands
3 that we have producing out of the "B" sand are the two
4 wells in the west half of Section -- or the east half of
5 Section 29, with the Number 2 Peery having been the only
6 well that has produced out of both sands.

7 Q. Have you found in your geological study some
8 reason why the wells on the west side produce from the "A"
9 and the wells on the west [sic] side produce from the "B"?
10 Some evidence geologically that's --

11 A. Oh, I think there's some generalizations that you
12 might draw. I think as a geologist or an engineer, you
13 have to draw some kind of conclusion.

14 The "A" sands, what I've found is, they're a sand
15 pretty much well-developed in this area. The "A" sand
16 seems to be better developed towards the west. In fact,
17 both sands are -- Your net isopachs of both sands are
18 pretty high on the west side. And I think that relates
19 to -- The pre-existing Devonian structure somewhat
20 controlled the sand development around this.

21 But the productive characteristics of these sands
22 doesn't necessarily go with the isopach. I can get to that
23 a little bit later.

24 Q. Okay. Well, then, let's turn to Exhibit Number
25 16. Could you describe what that exhibit is for the record

1 and then discuss its significance?

2 A. Okay, this pretty much is a very critical map
3 giving geologic reasoning why we believe that these
4 reservoirs, regardless of whether you're in the same
5 reservoir stratigraphic interval, are separated in an east-
6 to-west relationship.

7 This is a Morrow structure map drawn on the top
8 of the Morrow, the top of the lower Morrow, which is the
9 clastic interval that these sands reside in.

10 This is a very complex structural area where we
11 have a significant vertical to even reverse faulting
12 separating the east and west half of this section. And as
13 you'll remember, our proration unit is a laydown 320, as
14 shown on Exhibit Number 1. So there is a distinct
15 separation and, in fact, discontinuity of the rocks in an
16 east-to-west relationship in this area.

17 Note that the Number 2 Peery lies in a small
18 horst block, upthrown horst block, to the east of the main
19 vertical fault with quite a significant amount of throw
20 across it, with the Peery Number 3 being on the west side
21 of that fault, on the downthrown side of that fault.

22 And we feel that this is probably the primary
23 reason you're never going to be able to drain reserves from
24 the west half of this proration unit with a well on the
25 east half of it and vice-versa, that even if you are in the

1 same reservoir interval, stratigraphic interval, there's no
2 continuity between those two because of this.

3 And this isn't just a subsurface map drawn with
4 geological license; it's based on a 3-D seismic survey
5 which Paloma has access to -- in fact, I believe Paloma has
6 ownership of -- which covers the entire section. And it's
7 3-D surveys on a -- We have a data point every 110 foot, so
8 I mean, it's basically a blanket of seismic data. The data
9 is very good and shows without a doubt the presence of this
10 fault system.

11 And there's been several different people mapped
12 this data, and this fault system shows up on everyone's map
13 that I've seen. And I've seen two different versions and
14 generated one myself, and without a doubt -- These are
15 here, and we have a couple of exhibits that should show
16 that very clearly.

17 So again, what I stress is this north-south fault
18 system, primarily that the major north-south high-angle or
19 reverse fault creates no continuity across that proration
20 unit.

21 Q. The seismic lines that you were talking about are
22 the following two exhibits, Exhibits 17 and 18, are they
23 not?

24 A. Yes.

25 Q. And they are colored in and show the faulting

1 that you have just spoken about; is that correct?

2 A. This is correct, and what we have is a unit --
3 Exhibit 17 is arbitrary line number 1, which goes through
4 pretty much the south half of Section 29 diagonally,
5 northeast to southwest.

6 These have been colored. This is one
7 interpretation. Most interpretations will be very similar.
8 I've seen two separate interpretations, and they're very
9 similar.

10 As you can see, this line goes through the Peery
11 Number 2, designated the TXC2PRY on the seismic line, and
12 also through the Shell LLA Number 1 down in Section 32.

13 As you can see, the Peery Number 2 is in an
14 upthrown horst block, which there could be no doubt that
15 you're in an upthrown horst block. And the interpretation,
16 again, has been confirmed by several different
17 geophysicists.

18 The Shell LLA Number 1, obviously on the west
19 side of that major fault, significantly downthrown.

20 Q. Now, in your study you have confirmed that the
21 Peery Number 3 from the upper or the "A" sand produced
22 significant reserves, did it not?

23 A. Yes, it did, it produced over 3 BCF.

24 Q. And the Number 2 well was actually opened up
25 originally in that same sand but did not produce but very

1 little, and after four months was shut in; is that correct?

2 A. That's correct.

3 Q. Does that give you further support for your
4 argument that we've got two separate zones here?

5 A. Oh, yeah. Yes, I do. If you look at -- Well, I
6 think I can explain that or talk about that a little
7 better --

8 Q. Please do.

9 A. -- with some later exhibits, maybe --

10 Q. Okay.

11 A. -- elaborate better.

12 Q. All right.

13 A. Let me just go to this Number 18, arbitrary line
14 2 through the north half of the section. It shows
15 basically the same setting and upthrown -- or the horst
16 block, with the major fault being down to the west.

17 And thereby I don't think there's any doubt that
18 we have a major discontinuity east to west across the
19 entire section.

20 Q. All right. If you'd turn, then, to Exhibit 19
21 and explain what it is and what you're trying to --

22 A. Exhibit 19 is the same as Exhibit 18 sands. It's
23 a clean section without the two arbitrary side lines drawn
24 on it.

25 It's basically, again, a Morrow structure

1 honoring subsurface data but also drawn utilizing seismic
2 interpretation.

3 Q. All right. Exhibit 20, then, would you identify
4 it and discuss its significance?

5 A. Exhibit 20 is a sand isolith map of the "A" sand,
6 the upper sand, showing net feet of sand. Net feet of sand
7 was delineated basically using all available electric log
8 data.

9 The original wells were again drilled -- the
10 majority of these were drilled in the late Fifties, early
11 Sixties. Consequently, the only electrical logs available
12 are electric logs, gamma-ray/neutrons, and we don't have
13 any very -- any high-quality porosity logs across this.

14 So I utilized all curves to come up with the best
15 estimate of what we believe net sand is. Net sand is not
16 necessarily, therefore, determined as productive sand.
17 It's basically the presence of a sandbody and not
18 necessarily productive sand. But I think it shows well at
19 least the location of these sands and the continuity of
20 these sands in the Little Lucky Lake-Morrow reservoir.

21 The "A" sand is the sand that has produced the
22 majority of the gas in the reservoir. Each well that has
23 produced out of the "A" sand, you'll note, is circled with
24 a large circle. And as you'll see, the "A" sand producers
25 are predominantly on the west side of the field, and with

1 thickness ranging from 4 productive feet up to 19
2 productive feet in the Number 3.

3 Again, the Number 3 has produced the most amount
4 of gas in the field, over 3 BCF of gas, 90-plus-thousand
5 barrels of condensate.

6 The Little Lucky Lake Number 1 is the next, has
7 produced over 1.2 BCF. It's only got 4 net feet of sand in
8 it. There's not necessarily a linear relationship between
9 the reserves we find in these and the thickness of the
10 sand.

11 Again, we look at the Peery Number 2, it had 10
12 foot of sand, yet it only produced 155 million cubic feet.

13 As we've seen, I think Gene has proven beyond a
14 doubt these wells can be re-entered oftentimes and
15 production re-established, when there may have been,
16 actually, some mechanical problems limiting the production
17 that we've seen in some of these wells that is not
18 necessarily geological in nature. So it remains to be seen
19 if 155 million is all we can get out of that -- in that
20 well.

21 But that's -- Those are the facts thus far.

22 Q. Okay. What about Exhibit 21? Could you identify
23 it?

24 A. 21 is, again, a net isolith of the "B" sand, the
25 lower sand. It only has produced in the Peery Number 4

1 well in the northeast-northeast of 29 and is now producing
2 in the Peery Number 2, the recent recompletion by Paloma.

3 Again, we're looking at sand which is fairly
4 contiguous across this reservoir, has only been established
5 production in two wells in there, one that has 10 feet in
6 that sand, another that has 5.

7 If we look back at our production map, in the
8 Peery Number 4 well we produced roughly 68 million cubic
9 feet before the well was abandoned. It produced for
10 roughly 1 3/4 years before being abandoned.

11 And the only other completion is the recent
12 recompletion by Paloma in the Peery Number 2, in the
13 southwest-southeast of 29.

14 But as you can see, there's significant sand all
15 the way across here. It is generated on all logs, looks
16 like a very tight sand, very low porosity, as far as we can
17 tell with the tools we had. Best estimates, our average
18 porosity all the way across this sand is only probably two
19 to four percent porosity and in fact has not been tested in
20 many of these wells, even though there's a net amount that
21 would indicate it might be productive.

22 Q. Your last exhibit, Exhibit 22, the cross-section,
23 could you describe it and its significance to the
24 Application that you've made?

25 A. This is the cross-section shown on Exhibit Number

1 1, shows the location. Basically took in every significant
2 well that's in this reservoir or even close to it, going
3 from the southwest to the northeast through the field.

4 I think what's significant is -- that needs to be
5 shown, is the "A" sand and the "B" sand. They are
6 separated by 30 to 50 feet of the shale interval. They're
7 distinctive, and they seem to exist all the way across the
8 field to various degrees, even where there's zero net feet,
9 based on my calculations, there is indication that you can
10 see that the interval exists, it just -- it does not exist
11 as a sand.

12 So they are distinct and separate reservoirs, all
13 the way across this field, and they are not difficult to
14 correlate. They lie in approximately the same
15 stratigraphic interval, and if -- This is a structural
16 cross-section. If I was to make this as a stratigraphic
17 cross-section, it would be clearer to -- even to see the
18 continuity of the reservoirs across there.

19 Note when we get to the Peery Number 2 in the
20 middle, we cross those faults and we have a very
21 significant throw across that thing.

22 I do want to point out an error on my part as I
23 drew this, which could lead to confusion here. I can't
24 believe I did this, but the Peery Number 3, as I was
25 drawing this schematically, I just noted that I have the

1 Number 3 sand tied up with the producing "B" sand in the
2 Number 2. That, I think we have proven, is not the case.

3 Again, with the fluid and pressure data -- and I
4 really regret that error because that could lead someone
5 that looks at this cross-section to show that they are
6 connected, and that's exactly what we don't want to show.

7 But I think we've shown without a doubt that
8 there is no communication between those two sands, and in
9 fact, they are distinct and separate sands that are
10 distinct and separate, even more so by the major fault
11 system running north-south through the section.

12 Q. Well, Mr. Speer, do you have an opinion as to
13 whether or not -- Apparently this demarcation of zones is
14 very close to the quarter section line which demarks
15 southwest from southeast.

16 Do you feel that a well that was located anywhere
17 in the southwest could, based on your geological study,
18 drain the reserves in the southeast?

19 A. It really does not appear that there's a way it
20 could do it. This -- With the seismic control we have and
21 the amount of throw that we see and every -- as mapped
22 across this fault system, that there just is very low
23 probability there's any communication between these --
24 between those two quarter sections in any of these sands.

25 Q. And we've already seen that you can't drain the

1 same zone that's found in the Number 3 from the Peery
2 Number 2 --

3 A. Well, that's right.

4 Q. -- because they tried it?

5 A. That's right. You look at the reserves coming
6 out of the Number 3 Peery with the net sand thickness and
7 water saturations, initial saturations that we looked at,
8 we're looking at a potential drainage area of over 200
9 acres.

10 If that was the case, you definitely would have
11 seen interference with the Number 2 when it was perforated,
12 and yet virgin reservoir was found in the Number 2.

13 There's no communication between these two
14 intervals that are producing. And in fact, if -- I don't
15 believe there's communication if you were in the same sand,
16 stratigraphic interval.

17 Q. Then based on your geological study, could you
18 sum up what your feeling is for this Examiner with respect
19 to the ability -- or whether or not this is in fact one
20 zone or two zones?

21 A. First, what I found from geologic study is, there
22 are two separate producing sands. These two wells of
23 interest are producing from separate sands.

24 Moreover, the sands are not contiguous across the
25 section in an east-to-west relationship, due to the major

1 faulting we see going north-south that basically bisects
2 the section. So were it to us that they were the same
3 sands, it was the same reservoir sand, it would still not
4 be the same reservoir, due to the throw and offset across
5 this major fault system.

6 Q. Then, Mr. Speer, do you have an opinion as to
7 whether or not this Application should be granted,
8 considering the traditional parameters that the Division
9 must be concerned with, and that is the prevention of waste
10 and the protection of correlative rights?

11 A. I think certainly the wells need to be produced
12 on both sides of this fault system, from one or both of the
13 sands, to effectively drain gas from underneath the south
14 half of the section. Both wells need to be produced on
15 both quarter sections.

16 Q. You heard Mr. Lee express his preference to the
17 simultaneous dedication of these wells.

18 Would you agree that that would be a proper
19 alternative for the Commission to adopt, being guided by
20 the traditional notions of prevention of waste and
21 protection of correlative rights?

22 A. Yes, I agree with Mr. Lee that based on the 271-
23 pound bottomhole pressure we see in the Number 3, you're
24 flirting with danger by shutting that well off and leaving
25 it shut in for any length of time, as to being able to

1 regain the kind of production that we had.

2 If you'll note on the production map that we
3 made, Exhibit Number 15, in December that well was making
4 587 MCF a day. That's a significant amount of production
5 at the kind of bottomhole pressure that well has, and to
6 shut that well in and have it not come back is a
7 significant waste of a valuable resource.

8 MR. CARROLL: Mr. Examiner, I would move
9 admission of Exhibits 14 through 22.

10 EXAMINER CATANACH: Exhibits 14 through 22 will
11 be admitted as evidence.

12 MR. CARROLL: And I have no further questions of
13 this witness at this time.

14 EXAMINATION

15 BY EXAMINER CATANACH:

16 Q. Mr. Speer, just a couple.

17 A. Okay.

18 Q. Do you believe that there is potential for "B"
19 sand production in the Number 3 well?

20 A. There could be. It has never been tested. It is
21 -- I stress again, if you look at the cross-section, these
22 are primarily gamma-ray neutron logs. You can note that
23 the neutron porosity reading is basically zero. But also
24 look at the Number 2, and it's basically zero. It's very
25 low as compared to what we see in the number -- in the "A"

1 sand.

2 The well was perforated because a microlog
3 separation was noted in the Number 2. Microlog separation
4 is not noted in the Number 3, but based on 2.2 BCF of gas
5 out of something that looks like it has no porosity, I
6 think a completion attempt may be needed in the Number 3 if
7 the operator so desires. It might be something to try.

8 But it looks low probability, just based on what
9 we see with the logs.

10 Q. Do you believe there's "A" sand potential in the
11 Number 2?

12 A. It has produced out of the "A" sand, 155 million.

13 Again, the well was abandoned by Texaco. They
14 have proven they abandoned wells that were capable of
15 production before in that section, so anything is possible
16 out there.

17 Again, let me just add -- state, as far as your
18 first question, for the "B" sand in the Number 3, I think
19 one thing -- one of the reasons the "B" sand in the Number
20 2 may produce so well is because it's in a very
21 tectonically stressed area.

22 And note we have very low porosity. I believe
23 one of the reasons the 2 maybe produced so well is very
24 good fracture porosity has probably developed, just due to
25 the placement of where it lies within that fault system. I

1 think it's been -- we have enhanced porosity due to
2 fracturing in there, would be my guess as why that well is
3 so productive.

4 And the 3 does not lie in quite an optimum
5 setting for fracturing, so it may or may not. It's a
6 gamble.

7 EXAMINER CATANACH: Uh-huh. I don't think I have
8 anything else.

9 MR. CARROLL: Let me just for clarification ask
10 one other question.

11

12 FURTHER EXAMINATION

13 BY MR. CARROLL:

14 Q. Mr. Speer, let's suppose that you were physically
15 capable of going in and recompleting the Number 3 well in
16 the deeper or the lower "B" sand.

17 Because of the geologic makeup out there, do you
18 think you could drain the reserves in the southeast quarter
19 by a completion in the southwest quarter?

20 A. No, I think that all the data -- which is very
21 good data -- the seismic data primarily shows us that you
22 cannot drain anything in the southwest by a well in the
23 southeast, and vice versa, regardless of whether you're in
24 the same sand or not --

25 Q. Okay.

1 A. -- that that fault system is a very effective
2 separator of the two reservoirs. Or basically, I think we
3 should call it four reservoir potentials: "A" sand west,
4 "B" sand west, "A" sand east, "B" sand east.

5 MR. CARROLL: That's all I wanted to cover.

6 EXAMINER CATANACH: All right. Anything further,
7 Mr. Carroll?

8 MR. CARROLL: No, sir.

9 (Off the record)

10 EXAMINER CATANACH: Okay, there being nothing
11 further, Case 11,020 will be taken under advisement, and
12 we'll adjourn this hearing.

13 (Thereupon, these proceedings were concluded at
14 6:01 p.m.)

15 * * *

16
17
18 I do hereby certify that the foregoing is
19 a complete report of the proceedings in
the Examiner hearing of Case No. 11020
heard by me on August 18 1984.

20 David R. Catnach, Examiner
21 Oil Conservation Division
22
23
24
25

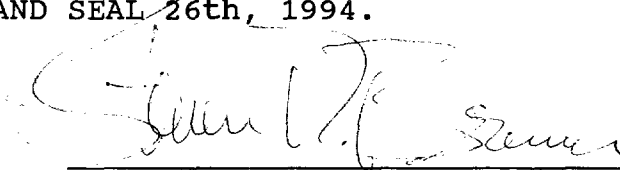
1 CERTIFICATE OF REPORTER

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

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

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

16 WITNESS MY HAND AND SEAL 26th, 1994.

17 
18 STEVEN T. BRENNER
19 CCR No. 7
20

21 My commission expires: October 14, 1994
22
23
24
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