

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. 11,403

APPLICATION OF POGO PRODUCING)
COMPANY FOR A PILOT PRESSURE)
MAINTENANCE PROJECT, EDDY COUNTY,)
NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

November 16th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, November 16th, 1995, 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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November 16th, 1995
 Examiner Hearing
 CASE NO. 11,403

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A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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Santa Fe, New Mexico 87504-2068
By: CONRAD E. COFFIELD

ALSO PRESENT:

DAN MOREHOUSE
Superintendent of Engineering and Construction
IMC Fertilizer, Inc.
P.O. Box 71
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* * *

1 WHEREUPON, the following proceedings were had at
2 9:00 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 11,403.

5 MR. CARROLL: Application of Pogo Producing
6 Company for a pilot pressure maintenance project, Eddy
7 County, New Mexico.

8 EXAMINER CATANACH: Are there appearances in this
9 case?

10 MR. COFFIELD: Yes, Mr. Examiner, I'm Conrad
11 Coffield with the Hinkle law firm, appearing on behalf of
12 the Applicant, Pogo.

13 I have four witnesses.

14 EXAMINER CATANACH: Are there any additional
15 appearances in this case?

16 MR. MOREHOUSE: Yes, sir, I guess me. I'm Dan
17 Morehouse with IMC.

18 EXAMINER CATANACH: Mr. Morehouse, are you going
19 to testify in this case, or --

20 MR. MOREHOUSE: I'm not sure. I'm just going to
21 register some objections to the --

22 EXAMINER CATANACH: Do you more or less just have
23 a statement that you might want to read, or --

24 MR. MOREHOUSE: I don't have any statement.
25 Basically, I'm concerned with the waterflood project at

1 that location, is that it's 760 feet away from a potash
2 lease that's currently in dispute that IMC has interest in.
3 It's within approximately, I think, 1000 feet of an LMR
4 that IMC would to draw on that lease should it become ours.
5 It is indicated in, or as designated by, the BLM. It is
6 within about a quarter mile of measured ore as designated
7 by the BLM.

8 Our concern is based as much on the experience of
9 the Hartman case, *Hartman vs. Texaco*, where a waterflood
10 project got a little wild and pressured up the Salado.
11 We're afraid that if a waterflood is allowed in this area,
12 it could damage the -- it could inflow into the strata
13 around the potash horizons and make it unfeasible to mine
14 that ore.

15 The Hartman case, I understand the flow was
16 somewhere around 2 1/2 miles. If we -- Well, I'll just say
17 that if that happens here, that takes in somewhere over a
18 quarter of a billion dollars' worth of potash, \$250
19 million.

20 EXAMINER CATANACH: Okay. Do you want to have
21 the opportunity to cross-examine their witnesses in this
22 case, do you think?

23 MR. MOREHOUSE: I guess I can say yes now, and
24 then probably not do it.

25 MR. MOREHOUSE: Maybe that would be best.

1 EXAMINER CATANACH: Okay. Are you going to have
2 any kind of evidence to submit in this case?

3 MR. MOREHOUSE: No, all our evidence is already
4 submitted. The LMRs and the BLM maps, I figure, are
5 already a matter of record.

6 EXAMINER CATANACH: Okay. We'll proceed from
7 there and just see how it goes.

8 MR. CARROLL: Mr. Morehouse, what's your position
9 with IMC?

10 MR. MOREHOUSE: I'm superintendent of engineering
11 construction of the mine.

12 EXAMINER CATANACH: Okay, at this time let's
13 swear in the witnesses.

14 (Thereupon, the witnesses were sworn.)

15 MR. COFFIELD: Mr. Examiner, our first witness is
16 Terry Gant.

17 TERRY GANT,
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. COFFIELD:

22 Q. Mr. Gant, would you please state for the record
23 your name and city of residence?

24 A. Terry Gant, Midland, Texas.

25 Q. By whom are you employed and in what capacity?

1 A. I'm employed by Pogo Producing Company as senior
2 landman.

3 Q. Have you previously testified before the
4 Division?

5 A. Yes, I have.

6 Q. And were your qualifications made a matter of
7 record?

8 A. Yes, they were.

9 Q. Are you familiar with the land matters involved
10 in this Application?

11 A. Yes, I am.

12 MR. COFFIELD: Mr. Examiner, we tender Mr. Gant
13 as an expert in land matters relating to this case.

14 EXAMINER CATANACH: Mr. Gant is so qualified.

15 Q. (By Mr. Coffield) Mr. Gant, what does Pogo
16 seek in this case?

17 A. Pogo seeks authority to inject water into its
18 Neff Federal Well Number 3 for the purpose of a pilot
19 pressure maintenance project for the Neff Federal Lease.

20 Q. And what is the current status of this Neff
21 Federal Well Number 3?

22 A. Currently, it is a producing oil well.

23 Q. Would you please refer to your Exhibit 1 and
24 describe the lease ownership in this area and the location
25 of the injection well?

1 A. Exhibit 1 is a land plat of the area around the
2 injection well.

3 The Neff Federal Number 3 well is marked by a red
4 dot. Such well is located 430 feet from the north line and
5 760 feet from the west line of Section 25, in Township 22
6 South, Range 31 East.

7 Q. Explain what the acreage is that's been colored
8 in yellow.

9 A. The yellow is Pogo-operated acreage. Pogo
10 operates in that federal lease, of course, which is in
11 Section 25. Pogo also operates offsetting leases in
12 Sections 23 and 26.

13 Texaco operates all of Section 24 to the north of
14 the injection well, under which Pogo is a nonoperator.

15 Mineral ownership in all four of the leases are
16 federal.

17 Q. What about the royalty and overriding royalty
18 ownership? Is that common?

19 A. No, it is not. All the royalty interest in all
20 four sections, again, are federally owned.

21 However, sections -- or the leases covering
22 Sections 23 and 26 are subject to a sliding-scale royalty,
23 with Sections 24 and 25 being a straight one-eighth
24 royalty.

25 As to the overriding royalty interests, all

1 leases have varying overriding interests and ownership.

2 Section 23 and 26 are subject to a .5-percent
3 overriding royalty interest.

4 Section 24 is subject to a 6.25-percent
5 overriding royalty interest.

6 And Section 25 is subject to an eighth override
7 with the south half being subject to an additional .5, for
8 a total of 13 percent.

9 Q. Which pool are these producing wells in this area
10 located in?

11 A. They are located in the Livingston Ridge-Delaware
12 Pool.

13 Q. Are there special rules for this particular pool?

14 A. No, they're spaced on 40 acres with a depth
15 bracket allowable of 187 barrels of oil per day and a 2000-
16 to-1 GOR.

17 Q. Mr. Gant, was notice of this Application given as
18 required by the OCD rules?

19 A. Yes, it was. The only offsetting owner, which
20 was Texaco, was notified. And so was the United States as
21 surface owner.

22 Q. Is Exhibit 2 your affidavit of notice?

23 A. Yes, and it contains copies of the notice letter
24 and certified return receipts.

25 Q. Has Pogo had any contact with Texaco besides the

1 notice letter?

2 A. Yes, we have. We've called Texaco to determine
3 its position on the Application.

4 Texaco verbally advised they had no objection and
5 then followed that up with a letter, which is going to be
6 Exhibit 3.

7 Q. Did you notify anybody else of this area?

8 A. Yes, we did, because this project is near the
9 WIPP area, and at the OCD's suggestion that the DOE
10 apparently would be interested in this case, we notified
11 the DOE of this hearing date.

12 Q. Is your letter to the DOE marked Exhibit 4?

13 A. Yes, it is.

14 Q. Where is WIPP from this injection well?

15 A. It is approximately about a mile and an eighth
16 from the eastern boundary of WIPP.

17 Q. If this project achieves success, could it be
18 expanded, Mr. Gant?

19 A. Yes, if performance warrants we may want to
20 include Pogo's leasehold in Sections 23 and 26 and the
21 Texaco-operated Section 24 under which Pogo is a
22 nonoperator.

23 Q. Have other cooperative injection programs been
24 approved by the Division before?

25 A. Yes, in Order Number R-10,307 the Division

1 approved a cooperative pressure-maintenance program for
2 leases owned by Shell, Texaco and Marathon for a pressure-
3 maintenance project in the Vacuum-Drinkard Pool.

4 Q. In your opinion, is the granting of this
5 Application in the interests of conservation and the
6 prevention of waste?

7 A. Yes, it is.

8 Q. Were Exhibits 1 through 4 prepared by you?

9 A. Yes, they were.

10 MR. COFFIELD: Mr. Examiner, I move the admission
11 of Exhibits 1 through 4.

12 EXAMINER CATANACH: Exhibits 1 through 4 will be
13 admitted as evidence.

14 MR. COFFIELD: And I have no further questions of
15 Mr. Gant at this time.

16 EXAMINATION

17 BY EXAMINER CATANACH:

18 Q. Mr. Gant, the Neff Federal Lease, that's
19 NM-25,365?

20 A. That's correct.

21 Q. That encompasses all of Section 25?

22 A. Yes, it does.

23 Q. And it's a different federal lease than Section
24 26?

25 A. Yes, and Section 23 is a different lease, and

1 then Section 24 is also a different federal lease.

2 Q. Do you have any recommendations as to what the
3 project, the pilot project area, should encompass in terms
4 of acreage?

5 A. Yes, it will be brought up, I believe, by Mr.
6 Vance Usher, who will be testifying here next. But
7 basically we're requesting that the pilot area be the north
8 half of the northwest quarter of Section 25 and the
9 southwest quarter of the northwest quarter of Section 25.

10 Q. I'm sorry, the north half of the northwest
11 quarter?

12 A. Correct, and the southwest of the northwest.

13 Q. Is the interest ownership within that project
14 area -- That's all common?

15 A. Yes, it is.

16 Q. Basically, you're -- Are the Well Numbers 1 and 2
17 producing wells at this time?

18 A. Yes, they are.

19 Q. Okay. Mr. Gant, do you have any knowledge of the
20 extent and location of potash leases in this area?

21 A. Some, not a lot. It's actually handled by
22 another landman in our office. But I'm aware of some of
23 it, not very much.

24 Q. Do you know what the closest potash lease to your
25 project might be?

1 A. No, I do not.

2 Q. Mr. Gant, is the -- Within Section 26,
3 specifically maybe talking about Well Number 1, would the
4 interest ownership be different from that in Section 25?

5 A. When you say interest ownership, as to working
6 interest owner or --

7 Q. Well, as to various interests.

8 A. To various. Pogo is a 100-percent interest owner
9 in the north half of Section 25.

10 In Section 26, we are a 50-percent working
11 interest owner and the operator.

12 Again, 23 and 26 are subject to the sliding scale
13 royalty, federal royalty. Royalty ownership is the same
14 but is -- you know, could possibly be different, depending
15 on production rates and the type of production.

16 The overriding royalty interest owner in 23 and
17 26, that's common as to those two sections. However,
18 there's different overriding royalty interest owners in
19 Section 25, you know, than 26.

20 Q. Is Well Number 1 in Section 26 likely to be
21 affected by this project at this time?

22 A. There's a possibility. Almost -- I'd rather
23 defer that question to Mr. Vance Usher. He'll testify here
24 at a later date.

25 EXAMINER CATANACH: Okay. Mr. Morehouse, do you

1 have any questions of this witness?

2 MR. MOREHOUSE: No, sir.

3 EXAMINER CATANACH: Okay, the witness may be
4 excused.

5 MR. COFFIELD: Mr. Examiner, our second witness
6 is Mr. Vance Usher.

7 VANCE USHER,
8 the witness herein, after having been first duly sworn upon
9 his oath, was examined and testified as follows:

10 DIRECT EXAMINATION

11 BY MR. COFFIELD:

12 Q. Mr. Usher, for the record would you please state
13 your name and city of residence?

14 A. Vance Usher, Houston, Texas.

15 Q. By whom are you employed and in what capacity?

16 A. Pogo Producing, senior reservoir engineer.

17 Q. Have you previously testified before this
18 Division?

19 A. No.

20 Q. For the record, then, Mr. Usher, would you please
21 outline your educational and employment background?

22 A. Bachelor of science, Penn State University.

23 Master of science, University of Southwestern Louisiana,
24 both in petroleum engineering.

25 Nineteen years of industry employment, beginning

1 with Superior, moving on through Marathon, Diamond Shamrock
2 Agip Petroleum, and currently Pogo Producing.

3 Q. In all those positions, were you employed as a
4 petroleum engineer?

5 A. That is correct.

6 Q. Do you belong to any professional organizations?

7 A. Yes, the Society of Petroleum Engineers, and I am
8 a registered professional engineer in the State of Texas.

9 Q. Are you familiar with the engineering matters
10 involved in this particular Application?

11 A. Yes.

12 MR. COFFIELD: Mr. Examiner, we tender Mr. Usher
13 as an expert petroleum engineer.

14 EXAMINER CATANACH: He is so qualified.

15 Q. (By Mr. Coffield) Mr. Usher, let's first discuss
16 the basics of the injection Application. Would you
17 identify Exhibit 5 for the Examiner?

18 A. Exhibit 5 is the Form C-108 for the well. For
19 ease of reference the pages are numbered.

20 Q. What is your proposal for this Neff Federal Well
21 Number 3?

22 A. Referring to page 2 of Exhibit 5, we propose to
23 convert the well to injection by setting a cast-iron bridge
24 plug at 7200 feet, using 2-7/8-inch lined tubing with a
25 packer set at 7000 feet and injecting water through

1 perforations at 7050 through -68.

2 Q. How many wells are there in this area of review?

3 A. If you'll look at pages 5 through 7 of Exhibit 5,
4 there are eight wells, seven of which are currently
5 producing from the Delaware.

6 Q. And which one is the P-and-A'd well?

7 A. The Texas Crude Wright 23 Federal Number 1,
8 located in the southeast corner of the southeast quarter,
9 Section 23, 330 feet from the east line and 330 feet from
10 the south line of Section 23. The schematic for that well
11 is page 8 of Exhibit 5.

12 Q. Are you satisfied that that one has been
13 adequately plugged and abandoned?

14 A. Yes, the TD of the well is at 4766 feet, which is
15 2300 feet above the injection interval. All zones have
16 been sealed off, and there's no chance of injection water
17 entering the wellbore.

18 Q. Okay. Regarding the producing wells, in
19 reviewing the data will they adequately protect freshwater
20 zones and prevent migration of injection fluids to other
21 zones?

22 A. Yes, all wells are cemented back to surface.

23 Q. Okay, Mr. Usher, would you please go ahead and
24 discuss your proposed injection calculations?

25 A. The injection data is summarized on page 9 of

1 Exhibit 5.

2 We propose injecting an average of 1000 barrels
3 of water per day with a maximum of 3000 barrels of water
4 per day. Average injection pressure will be 750 p.s.i.,
5 with a maximum pressure of 1410 p.s.i., which is the
6 maximum 0.2 p.s.i. per foot fixed by the Division.

7 Q. What is the source of this injection water?

8 A. The injection water will be produced Delaware
9 water from leases in this area. An analysis of Brushy
10 Canyon water from this area is located on page 12 of
11 Exhibit 5.

12 Q. Do you anticipate any compatibility problems
13 between the injection and the formation waters?

14 A. No, we are returning produced Delaware water back
15 to the Delaware formation.

16 Q. Is there a stimulation program for this injection
17 well?

18 A. No additional stimulation program is planned when
19 the well is converted to injection. When the well was
20 originally drilled, it was stimulated as indicated on page
21 10 of Exhibit 5.

22 I would like to note that there was a clerical
23 error in Exhibit 5 on page 10, and the revised numbers, if
24 you wish to write them in, are:

25 The acid treatment volume is 1000 gallons.

1 The frac pre-pad fluid volume is 37,000 gallons.

2 The proppant type is 60/30 sand.

3 The sand amount is 25,000 pounds.

4 The injection rate was 25 barrels per minute,
5 pumped down a 2-7/8-inch tubing.

6 MR. COFFIELD: Mr. Examiner, did you have an
7 opportunity to get all those changes?

8 EXAMINER CATANACH: Yes, I did.

9 Q. (By Mr. Coffield) Okay, let's move on to the
10 pressure-maintenance aspect of this case. What is it that
11 Pogo requests here?

12 A. Pogo requests approval of a pilot pressure-
13 maintenance project for the north half of the northwest
14 quarter, the southwest quarter, northwest quarter of
15 Section 25, which is covered by one lease.

16 Q. Are you requesting authority to administratively
17 expand this project?

18 A. Yes. Although there will initially be one
19 injection well and two producers, if we get good results
20 we'd like the ability to expand the project
21 administratively to add wells and additional leaseholds,
22 and we would like the order to include this authority.

23 Q. What's the current status of the producing wells
24 surrounding the proposed injection well? And I refer you
25 now to Exhibit 6.

1 A. Exhibit 6 is a cumulative production plat with
2 data on the seven producing wells offsetting the injection
3 well. The current daily production from the wells range
4 from three barrels a day to 30 barrels a day.

5 Q. Okay. Now, Mr. Usher, go to Exhibit 7. Would
6 you explain Exhibit 7?

7 A. Exhibit 7 is a cross-section of the Delaware in
8 the area of interest. It shows a correlation loop,
9 starting and ending with the injection well, and contains
10 all wells drilled to this interval within a half mile of
11 the injection well.

12 It also includes charts containing test and
13 cumulative data on oil, gas and water production from these
14 wells.

15 Q. Are these stripper wells?

16 A. As you can see from the chart in Exhibit 7,
17 overall they're not quite at the stripper stage.

18 In addition, there is substantial undeveloped
19 acreage in this area.

20 These wells fit the requirement cited in OCD Rule
21 701 F, in that the wells in this area have not reached the
22 advanced or stripper state of depletion. Thus, this is a
23 pressure-maintenance project.

24 Q. What is the drive mechanism for this pool?

25 A. Solution gas drive.

1 Q. And what is Exhibit 8? Explain that, please.

2 A. Exhibit 8 is a chart showing the GOR trend for
3 two of the seven producing wells within one half mile of
4 the proposed well. These wells are the Neff Federal Well
5 Number 1 and the Getty 24 Number 2. These wells are the
6 most representative for the injection interval.

7 Q. What is the current reservoir pressure?

8 A. The Neff Federal Well Number 3 recently was
9 tested and showed 1400 pounds bottomhole pressure. The
10 original bottomhole pressure was in excess of 2675 p.s.i.,
11 which was measured in the Federal 23 Number 5 well.

12 Q. What project area is it you're requesting?

13 A. The initial project area will be the north half
14 of the northwest quarter and the southwest quarter of the
15 northwest quarter of Section 25.

16 Q. And what project allowable do you request?

17 A. We request an allowable of two times 187 barrels
18 of oil per day to be produced in any proportion by the two
19 producing wells.

20 Q. What type of production response do you
21 anticipate from the injection program?

22 A. I expect that through pressure maintenance,
23 reservoir pressure decline will be stabilized. As a
24 result, producing well GORs will stop increasing and
25 solution gas drive energy will be conserved.

1 This will yield a high recovery factor for wells
2 in the region affected and yield a higher gross ultimate
3 reserve.

4 I do not expect an increase in oil production
5 rates, rather a longer-sustained productive life through
6 conservation of reservoir energy.

7 Q. If this project performs favorably, Mr. Usher,
8 then is it your opinion that this will recover additional
9 oil which would otherwise not be recovered?

10 A. Yes.

11 Q. So would you characterize this as truly a pilot
12 program?

13 A. Yes, if this project is approved, we'll first
14 commence injection to see if the injection zone will take
15 the fluid. If it does, we'll continue injection and
16 monitor the response of the producing wells.

17 Q. Could this project also beneficially affect
18 offsetting leases?

19 A. The injection well is in the northwest corner of
20 Section 25, and there are offsetting producing wells in
21 Section 23, 24 and 26.

22 If there is any effect on offsetting leases, we
23 think it will be beneficial. However, there will be no
24 movement of oil across lease lines, and I will comment on
25 that later.

1 Q. Are there any comparable projects nearby?

2 A. Yes, Phillips has a pressure-maintenance project
3 in the Cabin Lake-Delaware Pool in Section 2 of 26 South,
4 Range 30 East, about seven to eight miles to the northwest
5 of our lease.

6 However, that project is aimed primarily at the
7 Cherry Canyon zone.

8 Q. Mr. Usher, let's -- for a moment here, let's stop
9 and clarify the question of location. I believe you may
10 have said Section 2 of 27 South, something different from
11 22 South. Is it not 22 South?

12 A. That is correct.

13 Q. Okay. If this project is approved, Mr. Usher,
14 and operations are commenced in line with Pogo's
15 expectations, will there be any significant movement of oil
16 across lease boundaries?

17 A. No, the single well pressure maintenance water
18 injection well will not cause significant movement of oil.
19 Oil banking and significant movement of oil only occurs in
20 a closely spaced multiple injection well pattern in which
21 interference occurs to force the banking and displacement
22 of oil.

23 Q. Were Exhibits 5 through 8 prepared by you or
24 compiled from company business records?

25 A. Yes.

1 Q. Is the granting of this Application in the
2 interests of conservation and the prevention of waste, in
3 your opinion?

4 | A. Yes.

5 MR. COFFIELD: Mr. Examiner, I move the admission
6 of Exhibits 5 through 8.

7 EXAMINER CATANACH: Exhibits 5 through 8 will be
8 admitted as evidence.

9 MR. COFFIELD: And I have no further questions of
10 Mr. Usher at this moment.

| | |
|----|-------------|
| 11 | EXAMINATION |
|----|-------------|

12 BY EXAMINER CATANACH:

13 Q. Mr. Usher, what interval of the Delaware are we
14 dealing with here?

| | |
|----|-----------------------|
| 15 | A. Brushy Canyon "F". |
|----|-----------------------|

16 Q. Is that basically a single producing sand, or is
17 there multiple producing sands?

18 A. It is one of a series of sands in the Delaware.

19 Q. Within the Brushy Canyon?

20 | A. Yes.

21 Q. Okay. Are several of these sands being produced
22 in these wells?

23 | A. Yes, they are.

24 Q. And you intend to flood for pressure maintenance
25 each of these floods -- I mean, each of these sands?

1 A. No, we intend to conduct a pressure maintenance
2 only on the Brushy Canyon "F" sand.

3 Q. Are the offset producing wells completed in more
4 than just the "F" sand?

5 A. Yes, they are.

6 Q. What's the purpose of limiting it to the "F"
7 sand?

8 A. It's the most representative sand in the Delaware
9 for our testing purposes.

10 Q. Is that where most of the production is
11 originating?

12 A. It's equally distributed throughout the Delaware
13 zones.

14 Q. So just for -- For testing purposes you're just
15 going to flood the "F" sand?

16 A. That's correct.

17 Q. Is that going to be expanded later to include the
18 additional sands?

19 A. We're not requesting that at this time.

20 Q. Mr. Usher, have you looked at the wells within
21 the area of review of this proposed injection well and
22 satisfied yourself that they all have adequate casing and
23 cement across the injection zone?

24 A. Yes, I have. I've reviewed the cement programs
25 on all these wells, and all wells are cemented back to

1 surface.

2 Q. Are all of these wells similarly completed to the
3 proposed injection well, with three strings of casing?

4 A. That is correct.

5 Q. Mr. Neff [sic], do you have knowledge as to the
6 location of potash reserves being mined in this area?

7 A. No.

8 Q. Any idea of the depths that they're being mined
9 at?

10 A. No.

11 Q. Do you know what the current average production
12 in this area is?

13 A. Based on the seven wells that we've taken into
14 account in our study, it ranges between three and 30
15 barrels of oil per day.

16 Q. Is the Number 3 well -- Is that no longer
17 productive, or is it still capable of producing?

18 A. It's currently on production at two barrels per
19 day.

20 Q. Is your proposed volumes and pressures sufficient
21 to accomplish a pressure-maintenance-type situation?

22 A. We believe they are.

23 However, this is a test pilot program. We would
24 like to monitor the results.

25 Q. Is injection into the Number 3 well going to, in

1 your opinion, have an effect on the Number 1 well in
2 Section 26?

3 A. I believe any effect that the pressure
4 maintenance will have will be equally distributed among
5 those wells in the adjacent area.

6 Q. Is that a yes?

7 A. Yes, that's correct.

8 EXAMINER CATANACH: I believe that's all I have
9 at this time.

10 MR. COFFIELD: That's all I have.

11 EXAMINER CATANACH: Any questions of this
12 witness?

13 EXAMINATION

14 BY MR. MOREHOUSE:

15 Q. Again, some of the wells in that area, are they
16 have multiple completions, or are they commingled --

17 A. No, they're not.

18 Q. -- through the hole?

19 You said that there was no chance of water
20 entering the wellbore, at least on one of the wells. But
21 in any case, is it ever possible that water would travel
22 along the wellbore in a cemented hole for any -- even short
23 distances?

24 A. Based on the cement programs that have been
25 implemented on these wells, I believe the answer is no.

1 Q. I'm not an oil guy myself, so when you say this
2 area has been injected for -- frac'd, is that likely to
3 allow water to move any significant distance up out of the
4 immediate strata?

5 A. Could you repeat the question? I didn't
6 understand the way it was phrased.

7 Q. I understood that some of these wells had been
8 injected with sand and water to frac them; is that correct?

9 A. Yes.

10 Q. And would that allow any pathways for -- that
11 fracturing, would that allow any pathways for the motion of
12 water?

13 A. No, not within our proposed Neff Number 3 well.
14 The fracture on that was significantly small and remained
15 within the "F" sand, the zone of interest.

16 Q. But the water could -- Would it flow to the other
17 wells in this area also and have -- whatever frac'ing they
18 had done would also be available to waterflood?

19 A. This is a test pilot program, and we're not sure
20 on what the flow pattern, if any, will be of the injected
21 water.

22 MR. MOREHOUSE: That's all I'd ask.

23 EXAMINER CATANACH: The witness may be excused.

24 MR. COFFIELD: Mr. Examiner, our third witness is
25 George Dillman.

1 GEORGE J. DILLMAN,
2 the witness herein, after having been first duly sworn upon
3 his oath, was examined and testified as follows:

4 DIRECT EXAMINATION

5 BY MR. COFFIELD:

6 Q. Mr. Dillman, would you please state your name and
7 city of residence?

8 A. George Joseph Dillman, Midland, Texas.

9 Q. By whom are you employed and in what capacity?

10 A. Pogo Producing Company as a senior geologist.

11 Q. Have you previously testified before this
12 Division and had your qualifications made a matter of
13 record?

14 A. Yes, I have.

15 Q. Are you familiar with the geological matters
16 relating to this particular case?

17 A. Yes, I am.

18 MR. COFFIELD: Mr. Examiner, we tender Mr.
19 Dillman as an expert petroleum geologist.

20 EXAMINER CATANACH: Mr. Dillman is so qualified.

21 Q. (By Mr. Coffield) Mr. Dillman, what zone will
22 the Neff Federal Well Number 3 inject into?

23 A. We call this the "F" sand of the Brushy Canyon,
24 which is at approximately 7000 feet.

25 Q. What Delaware zones are productive in this area?

1 A. In the Livingston Ridge Pool, the Brushy Canyon
2 "A", "B", "F" and "G" sands and the lower Cherry Canyon are
3 productive. These are annotated in the type log marked
4 Exhibit 9.

5 Q. What zones do the wells within one-half mile of
6 the injection well produce from?

7 A. The "A", "F", "G" sand intervals in the Brushy
8 Canyon.

9 Q. What is the main producing zone in this pool?

10 A. The main producing zone is the Brushy Canyon "F"
11 sand, and the majority of oil reserves have been recovered
12 from this "F" sand.

13 Q. Mr. Dillman, in that connection, would it be
14 appropriate, then, to comment in connection with some of
15 the Examiner's previous questions that the reason you've
16 selected the "F" zone is for this reason?

17 A. Yes, the "F" zone is the single most developed
18 zone in the Livingston Ridge-Lost Tank Pool. It has a
19 significant areal extent north-south, through this
20 township. The "F" sand is continuous through this area.

21 Exhibit 7, which was tendered earlier, is a
22 cross-section that clarifies the correlation of the "F"
23 sand through the wells in the immediate half-mile area.
24 The correlation is very similar to the rest of the wells
25 within this township.

1 Q. Okay, Mr. Dillman, refer to Exhibit 5 on pages 5
2 through 7. It lists three wells as commingled: Pogo's
3 Federal 26 Number 1, the Federal 23 Number 1 and the
4 Federal 23 Number 2. Was production from these wells
5 actually downhole commingled?

6 A. No, that is a clerical error. The wells produced
7 from more than one Delaware zone, and they combined.
8 However, they do not produce from any non-Delaware zones.

9 Q. What is Exhibit 10, Mr. Dillman?

10 A. Exhibit 10 is a structure map of the "F" sand.

11 Q. And would you then go to Exhibit 11? What is
12 Exhibit 11?

13 A. Exhibit 11 is an isopach of this Neff area "F"
14 sand. It shows the known trend of the "F" pay, reservoir-
15 quality sand. The entire injection zone is productive of
16 hydrocarbons in this area.

17 Q. Exhibit 7 has already been introduced and you've
18 made reference to it as well, but could you restate exactly
19 what it is that exhibit shows?

20 A. Exhibit 7 is a cross-section of the Delaware in
21 the area of interest. It shows a correlation loop,
22 starting and ending with the Injection well, and contains
23 all wells drilled to this interval within a half mile of
24 the injection well. The main pay, the "F" sand, is
25 correlated through all these wells.

1 Q. So the "F" sand is continuous in this area?

2 A. Yes, it is very continuous.

3 Q. There's currently been some concern expressed
4 because the Neff federal lease is 1 1/8 miles from the WIPP
5 area. At what depth is the WIPP storage zone?

6 A. The WIPP storage zone is at 2150 feet, which is
7 4850 feet above our injection interval.

8 Q. In looking at the geology, is there any way for
9 fluid to migrate from 7000 feet to 2150 feet?

10 A. No, the overlying formations are very good
11 vertical permeability barriers.

12 Q. Are there any other nearby injection wells?

13 A. Yes, there are two saltwater disposal wells in
14 the vicinity.

15 The Getty 24 Number 5, located in Unit C of
16 Section 24 to the north, injects into the Bell Canyon at a
17 depth of approximately 4519 through 5110 feet.

18 And the Yates 35 Number 1 AIT in Unit H of
19 Section 35 also injects into the Bell Canyon.

20 Q. Are there any freshwater wells within a mile of
21 the injection well?

22 A. No, there is a water test well, the Number H5, in
23 the northeast quarter of Section 14, about two miles away.

24 Q. Do you have an analysis of the freshwater from
25 this area?

1 A. Yes, the analysis of the water from the well in
2 Section 14 is enclosed as page 13 of Exhibit 5.

3 Q. Are there any faults or other hydrologic
4 connections between the injection zone and the freshwater
5 zone?

6 A. No.

7 Q. Were Exhibits 9 through 11 prepared by you or
8 compiled from company business records?

9 A. Yes.

10 Q. In your opinion, is the granting of this
11 Application in the interest of conservation and the
12 prevention of waste?

13 A. Yes.

14 MR. COFFIELD: Mr. Examiner, we move the
15 admission of Exhibits 9 through 11.

16 EXAMINER CATANACH: Exhibits 9 through 11 will be
17 admitted as evidence.

18 MR. COFFIELD: And I have no further questions of
19 Mr. Dillman at this time.

20 EXAMINATION

21 BY EXAMINER CATANACH:

22 Q. Mr. Dillman, did you say the lower Cherry Canyon
23 is being produced in the Livingston Pool?

24 A. Yes, it is.

25 Q. In the wells that you operate?

1 A. Yes, it is. It produces in wells in Section 26
2 and also in one well in Section 12.

3 Q. Would it be your intent to include the Brushy
4 Canyon eventually in some type of pressure-maintenance
5 project?

6 A. The pressure-maintenance project that we are
7 proposing is the Brushy Canyon.

8 Q. I'm sorry, the Cherry Canyon.

9 A. The Cherry Canyon. At this time, no. The main
10 reason is because of the continuity of reservoir sands.
11 The Cherry Canyon reservoir is a very discontinuous
12 reservoir and is only occasionally productive throughout
13 the Livingston Ridge Pool, as opposed to the main sand,
14 which we are proceeding to inject water in the "F" sand, is
15 very continuous throughout the Livingston Ridge Pool.

16 Q. Mr. Dillman, do you have any knowledge of the
17 depths of any potash mining occurring in this area?

18 A. I have general information of the potash
19 interval. In the broadest sense, it's somewhere between
20 1300 feet and 2000 feet below the surface.

21 Q. There's been some concern expressed about water
22 moving vertically through some of these formations. Can
23 you explain to us some of the confining intervals located
24 above the Brushy Canyon interval that might preclude any
25 kind of vertical channeling of water?

1 A. Yes, the Brushy Canyon is the lower part of the
2 Delaware section in this area. It is overlain by
3 approximately 2500 feet of additional Delaware rock. The
4 Delaware is a series of interlayered, primarily very fine-
5 grain sand, siltstones, some shale, and has an increasing
6 amount of limestone/dolomite-cemented sand as you move
7 further upsection into the shallower Cherry Canyon/Bell
8 Canyon.

9 In general, all the sands, siltstones and shales
10 in the Delaware section are considered to be very low
11 permeability sands and have very poor vertical
12 permeability. This is obvious by the effective trapping of
13 oil in individual sand lobes throughout the Delaware
14 section and the lack of pervasive connected oil pays
15 through a large vertical interval. That is the initial
16 barrier to vertical migration of fluids, are the Delaware
17 sands, siltstones and shales themselves. They're very
18 effective.

19 At the top of the Delaware section is the basal
20 anhydrite of the Salado formation. Anhydrite is extremely
21 impermeable to fluid migration.

22 On top of the anhydrite are a series of
23 interlayered salts and anhydrites. It is essentially
24 considered by all petrophysicists that anhydrites and salts
25 are very impermeable to movement of fluid.

1 Q. Mr. Dillman, the fracture treatment that is used
2 in the producing wells in this area, in your opinion would
3 that extend vertically very much beyond the Brushy Canyon
4 interval?

5 A. No, it would not extend beyond the Brushy Canyon
6 interval. The design of the fracture treatment is for
7 horizontal growth and minor vertical connectivity with the
8 frac.

9 EXAMINER CATANACH: I believe that's all I have
10 of this witness.

11 Mr. Morehouse?

12 EXAMINATION

13 BY MR. MOREHOUSE:

14 Q. Are you aware of the Hartman-Texaco problem?

15 A. I am not aware of that problem. I have heard the
16 name of the case, but I am not familiar with it.

17 Q. Okay, the next question would have been if you
18 know...

19 I would assume the oil they produce would have a
20 vertical trapping mechanism that they are trying to produce
21 from?

22 I guess I'm making statements rather than
23 questions.

24 I'd like to know how this is different from the
25 Hartman in its mechanics.

1 EXAMINER CATANACH: Well, I mean, the -- Hartman-
2 Texaco is not being considered here. I'm not sure
3 everybody here knows all the facts of that case.

4 Do you have any other questions?

5 MR. MOREHOUSE: No.

6 EXAMINER CATANACH: Okay. This witness may be
7 excused.

8 MR. COFFIELD: Mr. Examiner, I'd like some
9 guidance from you here in connection with the potash
10 issues.

11 We are not prepared to present any kind of a
12 technical-scientific presentation with respect to the
13 possibility of some of the potash questions that have been
14 directed to the witnesses.

15 I do have a witness here who can testify with
16 respect to some of the location-of-lease questions and some
17 other questions that get to the issue of standing, perhaps,
18 to challenge here on the bases of lease ownership.

19 But I don't have anything beyond that kind of a
20 presentation.

21 EXAMINER CATANACH: Okay, I think some of the
22 information that you have may be helpful in this case, so
23 it may be beneficial to put him on.

24 MR. COFFIELD: All right. Then our fourth
25 witness will be Jim Gillespie.

1 JAMES A. GILLESPIE,
2 the witness herein, after having been first duly sworn upon
3 his oath, was examined and testified as follows:

4 DIRECT EXAMINATION

5 BY MR. COFFIELD:

6 Q. Mr. Gillespie, would you please state your name
7 and city of residence?

8 A. Yes, James A. Gillespie, Roswell, New Mexico.

9 Q. And by whom are you employed and in what
10 capacity?

11 A. By the law firm of Hinkle, Cox, Eaton, Coffield &
12 Hensley in the capacity as an associate attorney.

13 Q. And in that capacity, have you represented the
14 Applicant in this case, among others?

15 A. Yes, I have.

16 Q. Have you previously testified before the
17 Division?

18 A. No, I have not.

19 Q. So would you give some background on your
20 educational background and --

21 A. Sure. I have a BBA from the University of
22 Oklahoma in management of information systems, and a law
23 degree from the University of Oklahoma.

24 In 1988 I went to work for the Hinkle firm after
25 graduating and have been there since, in their Roswell

1 office. My practice has been primarily in the area of
2 natural resources litigation and, particularly over the
3 past year and a half or so, involving litigation or
4 administrative appeals in the potash area.

5 Q. Mr. Gillespie, particularly with respect to this
6 Application and the acreage involved here, do you have some
7 familiarity with the status of issuance of potash leases
8 and the like?

9 A. Yes, I do.

10 MR. COFFIELD: Mr. Examiner, we tender Mr.
11 Gillespie as an expert with respect to the matters just
12 discussed.

13 EXAMINER CATANACH: He is so qualified.

14 Q. (By Mr. Coffield) Mr. Gillespie, you have heard
15 questions raised here as to what is the closest potash
16 lease to the project involved. Do you have any information
17 on that question?

18 A. Yes, I do. I wasn't prepared to say where the
19 closest lease is. I can say where the closest lease is
20 not. There is --

21 Q. All right. Okay, let me ask you, then: Is the
22 acreage in question here currently under a potash lease?

23 A. No, it is not.

24 Q. Can you describe to the Examiner the history of
25 that particular issue and any knowledge that you have with

1 respect to attempts to obtain leases by various parties on
2 this particular tract?

3 A. Yes, I can. The acreage particularly involved by
4 this well I don't believe has ever been proposed for potash
5 lease, to my knowledge.

6 However, to the west northwest there was a lease
7 that was nominated by a potash company and was put out for
8 competitive bid in August of 1993, I believe.

9 At that time, Pogo and Yates attended the sale
10 and presented the high bid for that potash lease. I can
11 give something of a tortuous path that those matters have
12 taken. The bottom line is that it is not leased at this
13 time. That lease has not been issued, and in fact by order
14 of federal court in New Mexico it may not be issued at this
15 time.

16 I'm certainly able to take you down all the
17 procedural steps. I don't know if you want to go there.
18 But the end result is that that acreage is not leased for
19 potash.

20 Q. Who is the -- Is there a potash company that
21 proposes to lease this tract?

22 A. Yes, my understanding is that a letter was
23 introduced in this case by Mr. Morehouse on behalf of IMC,
24 which implied that IMC owned a lease some 700-and-something
25 feet to the west of this proposed site.

1 In response, I have prepared a letter addressing
2 those matters, and perhaps it would be good to...

3 Q. Is this the letter you just alluded to that you
4 have written in response to some of the issues raised by
5 the potash company's letter?

6 A. Yes, the one you've marked as Exhibit 12.

7 MR. COFFIELD: Mr. Examiner, we'll tender this as
8 Exhibit 12 in this case.

9 Q. (By Mr. Coffield) Mr. Gillespie, would you
10 please explain what you've covered in this letter?

11 A. Certainly. This is just an attempt to provide
12 information to the Commission as to the status of the
13 potash lease impliedly owned by IMC.

14 It's my understanding from Mr. Morehouse's
15 statement earlier this morning that IMC does not now claim
16 to own that lease, and it could be that this is
17 superfluous.

18 But needless to say, there was a lease proposed
19 to be issued. Pogo and Yates were the high bidders. The
20 BLM rejected that bid and proposed to lease the property to
21 IMC.

22 A stipulated judgment was entered in federal
23 court prohibiting that action by BLM. Nevertheless, ten
24 days later BLM issued the lease anyway.

25 Another hearing was scheduled with federal court

1 in order for BLM to show cause why they had done -- taken
2 this action. Two days before that hearing, BLM again
3 agreed to enter into a stipulated judgment in which they
4 admitted to violating the previous order and agreed to
5 rescind the potash lease.

6 And attached to this letter, Exhibit 12, is a
7 copy of the stipulated judgment, as well as a copy of the
8 cancellation decision by BLM.

9 The matter regarding Pogo and Yates's bid
10 rejection was on appeal with the IBLA. It was dismissed --
11 I'm sorry, it is still on appeal with the IBLA. And the
12 matter regarding IMC's canceled lease is on appeal with the
13 IBLA. Neither of those matters create a lease interest in
14 IMC for any potash lease in this area.

15 It's my understanding that the closest lease
16 owned by IMC would be many miles distant from this site.
17 In fact, IMC's operations, as I understand them, would have
18 to go clear around the WIPP site to be able to mine in this
19 area, assuming that they ever had a lease to mine potash in
20 this area.

21 MR. COFFIELD: I have no further questions of Mr.
22 Gillespie.

23 EXAMINATION

24 BY MR. CARROLL:

25 Q. Mr. Gillespie, this lease in question, this is

1 referring to Section 26?

2 A. I'm sorry, the potash lease --

3 Q. Right.

4 A. -- is in -- I don't have a map in front of me,
5 and -- Yes, as I understand it, the lease comes up and
6 around the WIPP site this way, the potash lease, the one in
7 question.

8 EXAMINER CATANACH: It does include a portion of
9 Section 26?

10 THE WITNESS: I have a map, and I can check.

11 MR. MOREHOUSE: I can check.

12 THE WITNESS: Mr. Morehouse can probably --

13 MR. MOREHOUSE: The north half of the north half
14 of 26.

15 EXAMINER CATANACH: North half, north half.
16 Thanks.

17 THE WITNESS: I'm sure that's correct. As I say,
18 that lease was issued illegally by BLM but was later
19 canceled, and it is currently on appeal with IBLA.

20 Q. (By Mr. Carroll) Mr. Gillespie, this Hartman
21 well that was the subject of the Hartman-Texaco case, how
22 far away is that well?

23 A. I believe it's greater than 20 miles to the
24 southeast.

25 Q. And is that the same formation we're discussing

1 here, or is that an entirely different --

2 A. My under- -- I'm not a geologist. My
3 understanding, though, is, the geology is very different
4 from this area.

5 In fact, there was a summary of a report from
6 Sandia Labs, issued just several months ago, in which they
7 reviewed the Hartman-Texaco geology, as compared with the
8 WIPP site, and found them to be dissimilar and that there
9 should be no correlation between the finding of liability
10 against Texaco and any problems with injected waters at
11 WIPP.

12 EXAMINER CATANACH: I think that's all the
13 questions we have.

14 Mr. Morehouse, do you have anything?

15 MR. MOREHOUSE: No. Basically he's correct on
16 lease.

17 EXAMINATION

18 BY MR. MOREHOUSE:

19 Q. Is it true that the BLM has issued two lease
20 numbers for this lease?

21 A. Yeah, it's my understanding that they initially
22 put out the lease for bid under one number. When they
23 decided to reject Pogo and Yates's bid, they then issued a
24 new number and attempted to issue the lease to IMC under a
25 different number.

1 Q. Would it be your opinion that this would be a
2 lease without current litigation? I mean, this area would
3 have been leased and would be a potash lease?

4 A. I'm sure BLM proposed to issue it, and it could
5 have been issued. I don't know that it -- I believe it
6 meets the standard for leasing properties. It's owned by
7 the government and they can lease it, assuming someone's
8 willing to pay for it.

9 MR. COFFIELD: Mr. Gillespie, in that regard,
10 what about the regulations and the stipulations that would
11 be included in a potash lease, as opposed to oil and gas
12 operations? Do you have information on that?

13 THE WITNESS: Yes. In fact, if a lease is ever
14 issued for this property for potash development, the
15 applicable order would require the BLM to place a
16 stipulation on that lease, and I'm referring to the 1986
17 potash order, Section III.C -- federal government.

18 That stipulation would state -- would be required
19 to the effect that no mining or exploration operations
20 shall be conducted that in the opinion of the authorized
21 officer would constitute a hazard to oil or gas production
22 or that will unreasonably interfere with the orderly
23 development and production under any oil or gas lease
24 issued for the same lands.

25 So there would be a stipulation on any potash

1 lease issued that would prohibit potash mining from
2 interfering with the orderly production of oil and gas
3 resources.

4 MR. CARROLL: Mr. Gillespie, what order is that?
5 What were you reading from?

6 THE WITNESS: I'm sorry, the --

7 MR. CARROLL: And who issued that? The BLM?

8 THE WITNESS: That was issued by the Department
9 of the Interior, instructing the BLM on how to manage the
10 potash area.

11 I can provide a copy to the Commission. It's
12 found in *Federal Register* Volume 51, Number 208, October
13 28th, 1986.

14 MR. CARROLL: Yeah, if you could provide a copy
15 of that.

16 THE WITNESS: You bet.

17 Q. (By Mr. Morehouse) Are you aware of some of the
18 stipulations on oil leases for development of potash?

19 A. Yeah, I think there are similarly worded
20 stipulations on oil and gas leases, such that if potash
21 mining is occurring they are to conduct their operations so
22 as not to unduly interfere.

23 It's my understanding that there are no potash
24 operations being conducted within many miles of this site.

25 MR. COFFIELD: Mr. Gillespie, your knowledge of

1 this area, are you familiar with the fact that there are 40
2 oil wells located in Section 26?

3 THE WITNESS: Yes, I believe that's the case.

4 MR. COFFIELD: Mr. Examiner, I believe our plats
5 show that to be a fact as well.

6 EXAMINER CATANACH: Okay.

7 Anything else of this witness?

8 MR. COFFIELD: No.

9 EXAMINER CATANACH: If not, he may be excused.

10 MR. COFFIELD: We have nothing else in this case,
11 Mr. Examiner. However, we would like to note that we would
12 respectfully request expeditious handling in the event that
13 is going to be hurriedly dealt with because, for budget
14 constraint reasons and whatnot, Pogo would like to be able
15 to start this before the end of the year.

16 EXAMINER CATANACH: Mr. Morehouse, would you like
17 to make any statements or additional comments at this time?

18 MR. MOREHOUSE: Just restate what I think is kind
19 of -- you all have understood from me so far, is that this
20 lease immediately west of this point is, in fact, an
21 unissued lease, but a lease nonetheless, that has been
22 requested by IMC, I think back in 1989 or 1990, go to bid,
23 it goes through -- The only reason it is not in IMC's
24 possession is due to litigation and efforts by Pogo and
25 Yates.

1 It's correct, the drilling has occurred in the
2 area, it already has impacted potash. IMC has a lease in
3 Section 36. We're about a mile and a half away -- a little
4 further than that, about two miles away from this well.

5 Mining, I'd say, is approximately six miles away
6 at this point, headed in its general direction.

7 We're concerned that -- We're sure that Texaco
8 did not intend to pressure up the Salado. We're assured
9 that Pogo does not intend to have water get away and go
10 where it's untoward. I just want to raise the thought that
11 should such a thing happen, the cost is extreme.

12 EXAMINER CATANACH: Mr. Morehouse, I have every
13 intent to consider your comments and objections to this
14 project. However, I think that we may need some additional
15 information from you regarding the locations of your leases
16 in this area and some of the other things that we don't
17 have in possession at this time.

18 Would you be willing to submit some additional
19 information --

20 MR. MOREHOUSE: Sure.

21 EXAMINER CATANACH: -- relative to your concerns?

22 MR. MOREHOUSE: They're state leases that are --
23 They're up here in this building somewhere, but we can dig
24 them out.

25 EXAMINER CATANACH: Okay. Let me ask you --

1 (Off the record)

2 EXAMINER CATANACH: Mr. Morehouse, let me ask
3 you, do you have an opinion as to what the ultimate outcome
4 of that BLM decision might be in Section 26?

5 MR. MOREHOUSE: That's a portion of 26. But like
6 you said, it goes around all the way up around WIPP and the
7 5000-acre lease. I don't know what they'll do.

8 The reason, stated reason, that BLM didn't issue
9 the lease to Pogo was, they didn't feel that they were
10 going to be capable -- or had intent to produce potash from
11 that lease, that it was being leased for other purposes. I
12 believe that's the way the IBLA will see it too, but that's
13 in great contention at the moment.

14 I would think that -- The number of holes going
15 into the lease kind of confirm that. The number of oil and
16 gas wells being put into this area and on the lease itself
17 indicate that --

18 MR. CARROLL: Mr. Morehouse, besides the location
19 of the IMC leases, what other information do you deem
20 relevant for the Examiner's deliberations?

21 MR. MOREHOUSE: I guess the only other thing is
22 the possibility of flow of water up wellbores and up --
23 whatever caused fractures that were caused by this case at
24 Hartman, nearly 20 miles away.

25 MR. CARROLL: Then is there a reason why IMC

1 didn't present that evidence at this hearing?

2 MR. MOREHOUSE: We are not oil and gas folks at
3 all. I guess I come to this hearing feeling that expertise
4 of oil and gas is in the Commission itself. They just need
5 to be aware of what's going on.

6 MR. CARROLL: Well, you know, it sounds like
7 evidence that Pogo hasn't had a chance to cross-examine if
8 it's submitted after the hearing. I guess without Pogo's
9 objection you could submit that, and if Pogo has some
10 problem with it you can contest it after the hearing, and
11 that's without your objection.

12 MR. COFFIELD: Yeah, the materials being
13 submitted by IMC we would certainly want to have a copy and
14 have an opportunity to respond as to what are our opinions
15 and objections, if there are any, with respect to the
16 materials that are submitted for your consideration.

17 MR. CARROLL: Okay. So that's all right with you
18 if the IMC submits additional evidence, as long as you get
19 a copy and get a chance to respond to it?

20 MR. COFFIELD: Only reluctantly, because we're
21 anxious for this project to get on, and we do not believe
22 that this is pertinent. But if the Examiner, if the
23 Division, wants to have this submitted, that would be our
24 position.

25 MR. CARROLL: How soon can you get that

1 information to us, Mr. Morehouse?

2 MR. MOREHOUSE: I can get you the maps Fed-Ex'd
3 up here by Monday for sure.

4 MR. CARROLL: And to Pogo, then, copies?

5 MR. MOREHOUSE: Hinkle.

6 MR. CARROLL: Yeah, to Hinkle.

7 MR. MOREHOUSE: As far as the Hartman case, the
8 only thing I guess we would have is the record, just the
9 record on Hartman. I'll see if I can get one.

10 MR. COFFIELD: Well, I'd like to say, we have
11 significant problems with any kind of analogy being drawn
12 by the matter of the decision of the Hartman-Texaco case
13 because of the -- certainly the geographical distance alone
14 raises serious issues as to what the subsurface geology
15 similarities might be. And it appears to me we have to
16 have significant scientific analysis and comparison of the
17 two locations to draw any reasonable analogy in that
18 particular instance.

19 MR. CARROLL: Yeah, you're asking us to take
20 judicial or administrative notice of the Hartman decision
21 and the facts underlying it, with no evidence entered as to
22 why it is similar to the Hartman case. I mean --

23 MR. MOREHOUSE: I just want to raise it as the --
24 one of the hazards and possibilities, injection of water.

25 MR. COFFIELD: I might interject here, too, that

1 the Hartman case, we know, is on appeal. And so that is
2 still not a settled issue.

3 EXAMINER CATANACH: Well, I have some knowledge
4 of the Hartman-Texaco case, and I can assure you, Mr.
5 Morehouse, that there are significant differences between
6 that case and the circumstances in this area.

7 MR. MOREHOUSE: I'll leave that to you, the Oil
8 Conservation Commission's judgment.

9 EXAMINER CATANACH: Okay, so I'm not sure that
10 that's -- I mean, it's -- We're aware of that case, and I
11 don't know that detailed consideration needs to be given to
12 that.

13 MR. MOREHOUSE: I'd be willing to leave that up
14 to your judgment.

15 EXAMINER CATANACH: Let me ask you one more
16 question.

17 If IMC is not successful in obtaining the lease
18 in Section 26, is it still -- Does your concern remain with
19 the potash leases that you still have in the area? Do your
20 concerns still remain the same?

21 MR. MOREHOUSE: No, they wouldn't be nearly as
22 important.

23 EXAMINER CATANACH: Okay.

24 MR. CARROLL: Mr. Morehouse, if you can Fed-Ex
25 that additional information to the Examiner here and to Mr.

1 Coffield on Monday.

2 MR. MOREHOUSE: I guess all you want is a lease
3 map of the area and a BLM map?

4 MR. CARROLL: Whatever information you want us to
5 consider.

6 EXAMINER CATANACH: If there's an LMR in this
7 area, I would hope that you would indicate where that might
8 be, in addition to the lease.

9 MR. MOREHOUSE: It would be an LMR on a contested
10 lease.

11 EXAMINER CATANACH: Okay. Mr. Coffield, do you
12 want time to respond to whatever --

13 MR. COFFIELD: Yes.

14 EXAMINER CATANACH: -- Mr. Morehouse has?

15 MR. COFFIELD: Yeah, that was my next question.
16 What scheduling order, if you will, would you impose in
17 this connection? We're going to have the material from
18 IMC, if I understand it, then, Monday or thereabouts?

19 MR. MOREHOUSE: Yes. . . .

20 MR. COFFIELD: Monday. And what schedule would
21 you want to -- would you say for us to be responding back
22 to you? ..

23 EXAMINER CATANACH: You're the one that's in a
24 hurry for the order.

25 MR. COFFIELD: Okay.

1 EXAMINER CATANACH: So whatever deadline you want
2 to impose on yourself would be fine with me. A week from
3 Monday --

4 MR. COFFIELD: All right.

5 EXAMINER CATANACH: -- or thereabouts?

6 Is there anything further at this time?

7 MR. COFFIELD: No, nothing further.

8 EXAMINER CATANACH: Okay. There being nothing
9 further, this case will be taken under advisement.

10 (Thereupon, these proceedings were concluded at
11 10:13 a.m.)

12 * * *

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19 I do hereby certify that the foregoing is
20 a complete record of the proceedings in
the Examining of Case No. 11463.
21 heard by me on November 16 1998
David P. Catanach, Examiner
22 Oil Conservation Division
23
24
25

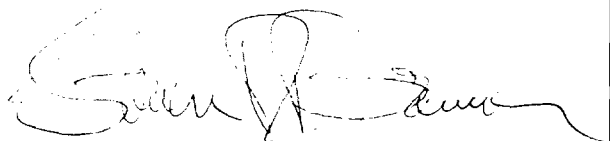
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

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

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

WITNESS MY HAND AND SEAL November 20th, 1995.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998