

**STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION**

IN THE MATTER OF PROPOSED AMENDMENTS
TO 20.6.2 NMAC, THE COPPER MINE RULE

New Mexico Environment Department,
Petitioner.

WQCC 12-01 (R)

FREEPORT-McMoRAN
REBUTTAL EXHIBIT BLANDFORD – 9

Testimony of Mary Ann Menetrey
(September 5, 2007) (Excerpts)

STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

WQCC 03-12(A) and WQCC 03-13(A)

IN THE MATTER OF:
APPEAL OF SUPPLEMENTAL DISCHARGE
PERMIT FOR CLOSURE (DP-1341) FOR
PHELPS DODGE TYRONE, INC.

PHELPS DODGE TYRONE, INC.,

Petitioner.

TRANSCRIPT OF PROCEEDINGS

BE IT REMEMBERED that on the 5th day of
September, 2007, the above-entitled matter came before
the New Mexico Water Quality Control Commission, taken
at the New Mexico State Capitol Building, Room 309, 490
Old Santa Fe Trail, Santa Fe, New Mexico, at the hour of
8:36 a.m.

VOLUME 10

A P P E A R A N C E S

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I N D E X

PAGE

WITNESSES:

MARY ANN MENETREY

Cross Examination (Continued) by the

Commission

2470

Cross Examination by Mr. Frederick

2481

Cross Examination by Mr. Butzier

2500

Redirect Examination by Ms. Fox

2663

Recross Examination by the Commission

2665

E X H I B I T S

MARKED/ADMITTED

TYRONE:

920. New Mexico's Experience in Setting
and Using Ground Water Quality

Standards, by Maxine S. Goad -

921. Documents used in Cross Examination
of Mary Ann Menetrey

2659

Pages 2469-2519
(intentionally omitted)

1 Q. And are some of those -- I'm sorry.

2 A. Go ahead.

3 Q. Were you finished?

4 A. Yes, I think so.

5 Q. And are some of those processes processes
6 which may occur once the contaminated discharge actually
7 reaches groundwater, in your understanding?

8 A. Potentially, they could. It's --

9 Q. Okay.

10 A. Again, contamination can happen up to the
11 standard, and there may be things that are naturally
12 happening in the aquifer that would be a natural process
13 that would prevent the standards from being exceeded.

14 Q. Now, in your testimony, as Mr. Frederick
15 pointed out, you talk a lot about places that are to be
16 protected, and you talk about a 30-year history of
17 permitting this Tyrone Mine site.

18 Do you recall that testimony?

19 A. Yes.

20 Q. And your actual firsthand experience began
21 sometime in the mid '90s, correct?

22 A. That's correct.

23 Q. And is the reason that you're able to discuss
24 the 30-year history of permitting the Tyrone Mine based
25 on the review that you described earlier of the

1 underlying operational discharge plan files?

2 A. Well, in part, but when I came to the
3 Department, I certainly had numerous discussions with
4 other staff and my supervisors and -- you know, who had
5 a longer history than I did with the Department and had
6 previously interpreted them and thinking about these
7 same documents and had reviewed the same documents.

8 Q. And other than the people you've already
9 mentioned, Marcy Leavitt and Dale Doremus, were there
10 others that you're talking about that helped you form an
11 understanding about a 30-year history?

12 A. I'm sure that there were.

13 Q. Let me ask you about -- about today.

14 Are you one of the people who has the longest
15 tenure in the Groundwater Quality Bureau at the New
16 Mexico Environment Department currently?

17 A. I would say that I am among those people in
18 the Groundwater Quality Bureau now. Yes.

19 Q. Are you the person with the longest history
20 who has dealt with mining facilities in the Groundwater
21 Bureau?

22 A. I don't believe -- I don't believe so, no.

23 Q. And who else has a longer history?

24 A. With mining -- I believe that -- I believe
25 that Clint Marshall was all -- he was already in the

1 permitting section working on mine facilities --

2 Q. Okay.

3 A. -- when I -- it was around the same time
4 frame, so I couldn't be absolutely sure of that, but
5 it's close.

6 Q. Okay. We'll come back to some of the specific
7 statements you make on page 3 about the 30-year history,
8 but before I get to that, I'd like to draw your
9 attention to page 4, under paragraph Roman numeral III,
10 about halfway down that section on the page, where you
11 refer to various pollution prevention measures during
12 operations.

13 Do you see where I'm looking?

14 A. Could you repeat --

15 Q. It's page 4 --

16 A. Okay.

17 Q. -- under Roman numeral III, A.

18 And this is a section talking about Tyrone
19 operational permits, primarily addressed to the
20 operational phase of facilities at the Tyrone Mine.

21 Do you see where I'm looking?

22 A. I -- let's see.

23 MS. FOX: What paragraph are you on?

24 MR. BUTZIER: Paragraph III.A on page 4.

25 MS. FOX: Right.

1 But what paragraph?

2 MS. MALAVE: That first paragraph.

3 MR. BUTZIER: It's in the first paragraph,
4 it's probably about the second to the last sentence,
5 beginning with "The Tyrone operational permits."

6 MS. FOX: Thank you.

7 Q. (BY MR. BUTZIER) Do you see where I'm
8 looking?

9 A. Yes.

10 I apologize. I was still thinking about the
11 other people I had worked with who had a longer history
12 than I did at the --

13 Q. Okay. If you think of others, just --

14 A. I did. I actually did.

15 MS. FOX: She's really being thoughtful about
16 your questions.

17 MS. MENETREY: I did.

18 Q. (BY MR. BUTZIER) Well, who else?

19 A. Well, Maxine Goad was my supervisor with
20 regard to all the work I did on the New Mexico Mining
21 Act, so --

22 Q. Okay.

23 A. -- we had -- and she certainly had a lot more
24 history than I did.

25 Q. And I was actually asking about people who are

1 still with the agency, but that's --

2 A. Right. I was even --

3 Q. -- helpful.

4 A. -- thinking back farther.

5 Q. Yeah.

6 A. I apologize.

7 Q. Well, let me draw your attention to the
8 sentence we were just talking about on page 4 of your
9 testimony. And why don't you go ahead and read that
10 sentence.

11 A. This is the sentence "The Tyrone operational
12 permits primarily"? Okay.

13 Q. That's right.

14 A. "The Tyrone operational permits primarily
15 address the operational phase of individual facilities
16 at the Tyrone Mine, and include requirements for
17 pollution prevention measures during operations,
18 groundwater monitoring, contingency plans, abatement of
19 groundwater contamination, and corrective action in the
20 event of unauthorized discharges."

21 Q. Now, I'd like to ask you about the various
22 things you've listed in that sentence, and in particular
23 starting with the groundwater monitoring.

24 What is your understanding of the purpose and
25 use of groundwater monitoring under the NMED's discharge

1 plan program?

2 A. The purpose of groundwater monitoring is to
3 determine if groundwater is being -- how groundwater may
4 or may not be affected by the dis -- the permitted
5 discharge.

6 Q. And is it your -- I think you may have
7 indicated this previously. Is it your understanding
8 that groundwater monitoring is to determine if there are
9 exceedances of groundwater standards at the location
10 where there's monitoring?

11 A. Well, it's not just to determine -- certainly
12 groundwater monitoring is to determine exceedances, but
13 it's also to give you a picture of what's happening even
14 before exceedances may occur. It -- and you're
15 certainly measuring -- what you're measuring in that
16 monitoring well is a snapshot of -- at that time. So
17 you're measuring the groundwater right there at that
18 time.

19 Q. And is groundwater monitoring in any way
20 related to contingency plans, which is the next thing
21 you mention in this sentence?

22 A. Well, yes, it is related.

23 Q. What is a contingency plan, and how does it
24 relate to monitoring?

25 A. A contingency plan is the methods -- basically

1 a contingency plan is something that the operator
2 provides if there's a failure of the permit in some way,
3 what -- what's the operator going to do. It's a
4 description of what measures the operator will take
5 if -- if the permit fails.

6 Q. And when you use the term "failure" in that
7 context, you're not talking about a violation of the
8 water quality rules, you're talking about some kind of
9 exceedance -- some kind of contamination that -- that
10 occurs that maybe wasn't anticipated, and a contingency
11 plan is designed to address that; isn't that correct?

12 A. Could you repeat that? I'm sorry.

13 MR. BUTZIER: Could you read that back?

14 (Record read.)

15 MS. MENETREY: Well, I think it could be -- a
16 contingency plan wouldn't necessarily -- it could be
17 beyond, you know, unanticipated contamination of
18 groundwater. It could be other activities, as well, I
19 mean, besides that. I mean, for instance, you discover
20 that your -- your double-lined pond is, you know, ripped
21 or something.

22 I mean, there -- there's going to be
23 contingencies for all sorts of aspects of the discharge
24 besides -- but certainly if groundwater becomes
25 contaminated and it was not supposed to, then it would

1 be expected there to be a contingency for that.

2 Q. (BY MR. BUTZIER) What's the difference
3 between a contingency plan and a corrective action, in
4 the event of an unauthorized discharge?

5 A. Well, a contingency plan generally is in the
6 permit. It's an action that the operator is going to
7 take if something goes amiss. And there is going to be
8 potentially some overlap between these.

9 But a corrective action plan is where
10 something, you know, completely unanticipated happens,
11 and, you know, something needs to be done to address it
12 immediately. And I -- a lot of the idea behind a
13 corrective action plan really comes from 1203 of the
14 regulations, where you have an unauthorized discharge of
15 some sort.

16 And unauthorized would include -- say you have
17 an excursion of PLS that's going outside of the -- you
18 know, that's moving away from a leach stockpile.

19 Q. Okay.

20 A. That isn't something normally that an operator
21 would already have had a contingency plan for in their
22 permit. It's an unauthorized discharge, and the
23 regulations require that a corrective action plan be
24 implemented to address that.

25 Q. And in fact, corrective actions and

1 contingency plans are in two complete different sections
2 of the regulations and addressed by different sections
3 in the regulations; isn't that correct?

4 And in particular, I'll draw your attention to
5 regulation 1203A, which, I think, is the provision you
6 were just discussing about corrective actions when there
7 is an unauthorized discharge.

8 Do you see where I'm looking?

9 A. Yes.

10 Q. So that's -- am I correct that that's the
11 provision you were just referring to in connection with
12 corrective actions?

13 A. That's correct.

14 Q. And in Section 3107, back to the discharge
15 plan regulations, 3107A.(10) makes a specific reference
16 to a contingency plan.

17 Do you see where I'm looking?

18 A. Yes.

19 Q. And like you said, that is -- a contingency
20 plan is something that is anticipated and expected of an
21 applicant up front in the discharge plan permitting
22 process, correct?

23 A. Yes. Contingency plans are generally part of
24 a discharge permit.

25 Q. And in fact, 3107A starts, "Each discharge

1 plan shall provide for the following as the secretary
2 may require," and it lists a number of things, including
3 number (8), a system for monitoring, number (9),
4 procedures for detecting failure of the discharge
5 system, and number (10), contingency plans to cope with
6 failure of the discharge permit or system.

7 Do you see where I was just reading?

8 A. Yes.

9 Q. That's a whole -- contingency plans, in other
10 words, are a whole different concept under these
11 regulations than corrective action for an unauthorized
12 discharge under 1203A; isn't that correct?

13 A. They're different, but I think that they
14 are -- you know, can be connected given whatever the set
15 of circumstances are.

16 Q. Now, there has been some mention in this case,
17 both in Mr. Olson's testimony and in your testimony,
18 about failure of operational discharge plans at the
19 Tyrone site.

20 Do you recall that testimony?

21 A. Yes.

22 Q. Has the agency -- has the agency -- well, can
23 you give -- can you give me the instances in which the
24 agency has concluded that there were failures of the
25 permits and, therefore, contingency plans were triggered

1 under 3107A? Do you know those off the top of your
2 head?

3 A. Could you repeat the question? I'm sorry.

4 Q. Do you recall instances at the Tyrone Mine
5 site where there were failures of a discharge system
6 that resulted in triggering a contingency plan under
7 3107A.(10)?

8 MS. FOX: There's no triggering. Objection,
9 there's no -- misstates the regulation.

10 MR. BUTZIER: Okay. I'll withdraw that
11 question and ask it in a different way.

12 MS. FOX: Yeah.

13 Q. (BY MR. BUTZIER) Are you aware of instances
14 in which there have been failures of a discharge system
15 at the Tyrone Mine site and contingency plans were
16 implemented under 3107A.(10)?

17 A. There has been numerous times, innumerable
18 times, I could -- where contingency provisions have
19 been -- I mean, in recent past, almost every time that a
20 well shows an exceedance of standards, there is a -- you
21 know, a contingency provision is implemented, and it --
22 and in the permits now it's pretty specific. They've
23 gotten -- contingency provisions have gotten much more
24 specific over the years.

25 And now it requires, you know, resampling of

1 the well at X amount of time and -- there's a whole
2 procedure that has to be followed, and clearly that's
3 happened many times.

4 Q. And Tyrone, in each instance that you're
5 talking about, has, in fact, implemented a contingency
6 plan and has worked cooperatively with the agency to --
7 to deal with those contingencies.

8 A. Yes. The contingency plans early on were
9 pretty vague and -- early in the permitting history, and
10 many of those contingency plans were not implemented as
11 they were described. But certainly any time that there
12 has been contamination detected, some sort of measures
13 were conducted by Tyrone to address it, even if it was
14 not, in fact, a contingency as described in the permit.

15 Q. Okay. I'd like to turn back now to page 3 of
16 your written testimony.

17 And you indicate in the second sentence under
18 Roman numeral II that in your testimony you'll describe
19 the approximate -- approximately 30-year history of
20 permitting the Tyrone Mine under the Water Quality Act
21 and explain how that history shows that the Department
22 has treated the groundwater beneath the site as
23 protected under the WQA and Commission Regulations.

24 Do you see the sentence I just read?

25 A. Yes.

1 Q. And then there are three or four different
2 uses of the term "protected" in the rest of that
3 paragraph and another one in the next paragraph.

4 What do you mean when you use the term
5 "protected" in your written testimony?

6 A. What I mean is that the groundwater needs to
7 meet 3103 standards.

8 Q. And so when you say that the 30-year history
9 shows that groundwater beneath the site is to be
10 protected, your testimony is that there's a 30-year
11 history at the Tyrone Mine where -- where Tyrone was
12 expected to meet standards underneath all of its
13 facilities at the mine; is that correct? That's your
14 testimony?

15 A. Yes, that that was -- the expectation would be
16 that the water quality beneath those areas would be --
17 yeah, protected.

18 Q. Okay.

19 Now, Mr. Frederick asked you a question about
20 ways to prove that a place was not a place of
21 withdrawal, and in particular he asked you is one of
22 those ways of proving that a place is not a place of
23 withdrawal showing that total dissolved solids is
24 greater than 10,000 milligrams per liter.

25 Do you recall that question?

1 MS. PADILLA: Mr. Frederick.

2 MR. FREDERICK: Let me object to the question.
3 I don't think a cross on cross is allowed. If it is,
4 I'd like to be able to redirect on Mr. Butzier's
5 cross -- or recross on his cross of my cross.

6 MR. BUTZIER: We've already -- Madam Chair,
7 we've already established in this proceeding that the
8 attorneys are allowed to go into questioning that others
9 have gone into at the time those questions are asked.

10 MR. FREDERICK: That's actually when the
11 Commission asks questions, not when another attorney
12 asks questions. If it is, again, I would like an
13 opportunity to cross on information that comes out
14 during Mr. Butzier's cross-examination, which will, of
15 course, extend this proceeding infinitely.

16 MR. BUTZIER: Madam Chair, I think I -- I
17 think Mr. -- under the procedures we've established, I
18 think Mr. Frederick will get another opportunity.

19 MS. PADILLA: Yeah, on redirect.

20 I'll allow the --

21 MS. MALAVE: Well --

22 MR. SLOANE: Infinitely. He said infinitely.

23 MR. LEWIS: I heard that, too.

24 MR. SLOANE: That makes me cross.

25 (Discussion off the record.)

1 MS. PADILLA: Just for clarification on the
2 process that we've established, I think, throughout this
3 particular proceeding is that we've allowed a recross if
4 there is a redirect --

5 MR. FREDERICK: Correct.

6 MS. PADILLA: -- and we've gone through that.
7 But we have also allowed, I think, questions responding
8 to or from all the -- I think all parts of the testimony
9 and questions on that.

10 So I'll allow the question.

11 MR. BUTZIER: Okay.

12 Q. Do you recall Mr. Frederick asking you about
13 whether one way to prove that a place is not a place of
14 withdrawal of water for present or reasonably
15 foreseeable future use is by showing that the water
16 would be in excess of 10,000 parts per million?

17 A. Yes. I recall the question.

18 Q. And you testified that that is one way to show
19 that a place is not a place of withdrawal, correct?

20 A. I don't know if that was exactly what I said.
21 I -- I believe that I said that if it's greater than
22 10,000 TDS, water wasn't protected under the Water
23 Quality Act, and so it wouldn't really even be going to
24 that issue. But conceivably water could be withdrawn
25 for a purpose from there, but --

1 Q. And how --

2 A. I think that's more what I said.

3 Q. And how do you perceive the relationship
4 between the 10,000 milligram per liter threshold under
5 the -- under the water quality regulations and the place
6 of withdrawal issue? Are those two separate inquiries,
7 or are those part of the same question?

8 A. Well, if -- if you have greater than
9 10,000 milligrams per liter TDS, you wouldn't even need
10 to submit a -- a discharge permit application, unless,
11 for some reason, the -- there might be a circumstance
12 because you -- if that water was going to be through the
13 discharge moving into waters that was less than 10,000
14 milligrams per liter TDS.

15 So in a way, though, it's a -- to me, it's
16 a -- it's a separate issue --

17 Q. Okay.

18 A. -- than the issue of, okay, it's less than
19 10,000 milligrams per liter TDS, and so now we know
20 there needs to be a discharge permit, and so we need to
21 make sure that that discharge is protecting, you know,
22 any place of withdrawal, so --

23 Q. Okay. So taking the 10,000 milligrams per
24 liter threshold question out of my line of questioning
25 now, I'd like to just focus on the place of withdrawal

1 question.

2 You've testified that it's the discharger's
3 burden to show that a discharge plan will meet standards
4 at a place of withdrawal of water for present or
5 reasonably foreseeable future use, correct?

6 A. That's correct.

7 Q. And you've also testified that the Department
8 assumes that all groundwater is a place of withdrawal
9 unless the discharger proves otherwise, correct?

10 A. That's correct.

11 Q. Can you describe for me what the agency's
12 position is as to what kind of showing would be required
13 to demonstrate that a particular area is not a place of
14 withdrawal of water for present or reasonably
15 foreseeable future use?

16 A. I guess that I -- that I can. I mean, that's
17 why we're here, I believe, today, this -- because this
18 issue has never come up. It's -- that I know of. I
19 can't recall any such circumstance.

20 Q. And you don't recall it coming up in the
21 context of your review of Tyrone's operational discharge
22 plan files?

23 A. Of whether the Tyrone Mine was a place of
24 withdrawal?

25 Q. (Nods head.)

1 A. The -- the issue came up primarily from
2 Tyrone, I believe, in correspondence, but Tyrone never
3 appealed or, you know, went to this level of, you know,
4 deciding the issue, so -- so we've never had to -- you
5 know, the issue of what level of effort would be
6 required, it just -- it just hasn't come up.

7 Q. So are you -- are you saying that the decision
8 was made that the Tyrone Mine site is a place of
9 withdrawal and that that's reflected in the Tyrone
10 operational discharge plan files and Tyrone didn't
11 appeal that decision?

12 A. There was no formal written determination, if
13 you will, that was included in the file, that stated the
14 Tyrone Mine is a place of withdrawal. It's, again,
15 implied through the permitting actions.

16 Q. So I want to understand the logic of what
17 you've just said.

18 Is it your position that if Tyrone at any
19 point agreed to abate or address a situation at the
20 Tyrone Mine to standards, that that -- that is the same
21 thing as a decision by the agency that the Tyrone Mine
22 is a place of withdrawal of water for present or
23 reasonably foreseeable future use?

24 How do you get from there were certain
25 requirements to do things inside the MMD permit boundary

1 to clean up to standards -- from that to concluding that
2 the entire mine site is a place of withdrawal of water?
3 Is that reflected in the -- in the files?

4 A. It's my testimony that in looking at the
5 30-year body of documents and permitting the Tyrone
6 Mine, that that shows, you know, in general that the
7 Department treated the entire mine as protected. My
8 testimony is not that there was a declaration of some
9 sort in a document, but that that, in practice, is how
10 the Department has been regulating the facility.

11 Q. Well, isn't it the case that the Department
12 has also looked at property ownership and the ability of
13 property owners to control particular areas and that
14 that's been a pretty significant factor in concluding
15 whether a particular location is a place of withdrawal?

16 A. I don't recall the Department looking at
17 ownership as determining the place of withdrawal --

18 Q. And you don't --

19 A. -- in a facility.

20 Q. You don't recall the Department looking at the
21 ability to control access to a particular area as being
22 relevant at all to the -- to the inquiry of whether a
23 place may be a place of withdrawal of water for
24 reasonably foreseeable future use?

25 A. I don't recall that in my -- any of my

1 review --

2 Q. Okay.

3 A. -- or practice.

4 Q. And do you agree with Mr. Olson that property
5 ownership is basically irrelevant to the place of
6 withdrawal question?

7 A. Yes.

8 MR. BUTZIER: Madam Chair, this may be a good
9 time for a break, because I'm going to get some exhibits
10 out and pass them out.

11 MS. PADILLA: Thank you.

12 MR. BUTZIER: I don't know if you want to take
13 a break or if you want to plow ahead, but --

14 MS. PADILLA: No. I think it's a good time
15 for a break. Thank you. I didn't want to interrupt
16 you, and I was -- I appreciate you bringing that up.

17 MR. BUTZIER: Okay.

18 MS. PADILLA: I think we'll take about a
19 10-minute break.

20 (Proceedings in recess from 10:18 a.m. to
21 10:34 a.m.)

22 MS. PADILLA: Okay. I think we're all back
23 from a much needed break, so why don't we continue.

24 Mr. Butzier, if you'd like to continue.

25 MR. BUTZIER: Thank you, Madam Chair.

1 And I just wanted to make sure everybody got a
2 copy of both my bound exhibits that I'm going to be
3 addressing with this witness.

4 MS. PADILLA: I think everyone received a
5 copy.

6 Did everyone receive a copy of the exhibits
7 that were handed out?

8 Okay.

9 MR. BUTZIER: Thank you, Madam Chair.

10 MS. PADILLA: Thank you.

11 Q. (BY MR. BUTZIER) Ms. Menetrey, I've put in
12 front of you Tyrone/Remand Exhibit 920 (sic), which is a
13 paper that Commissioner Goad wrote back in 1982.

14 Do you have that in front of you?

15 A. Yes.

16 Q. And I'm not -- I want to assure Commissioner
17 Goad I'm not offering this to try to make Commissioner
18 Goad feel uncomfortable at all, I just wanted to address
19 some of the issues that have come up relating to your
20 testimony.

21 And in particular, I draw your attention to
22 12 -- page 12 of that exhibit.

23 Well, first of all, let me -- let me just turn
24 back to the cover page.

25 Does this appear to be a paper that was

1 prevented by -- presented by Ms. Goad to The Sixth
2 National Groundwater Quality Symposium in Atlanta,
3 Georgia, in 1982?

4 MS. FOX: Objection. I don't think this
5 witness can lay foundation for this paper unless she is
6 familiar with it.

7 MR. BUTZIER: I'm just asking if she -- if
8 this -- if that's what this appears to be.

9 MS. FOX: Well, it says what it says, but she
10 can't lay foundation for a paper --

11 MR. BUTZIER: Okay.

12 MS. FOX: -- she's not familiar with.

13 Q. (BY MR. BUTZIER) I'd like you to turn to page
14 12, and do you see the highlighting that I've provided
15 on page 12?

16 A. Yes.

17 Q. Could you go ahead and read the highlighted
18 portions on page 12 into the record, please?

19 A. "In order to be approved a discharge plan must
20 demonstrate either that the discharge will not affect
21 groundwater with a TDS of 10,000 milligrams per liter or
22 less; or that the discharge will not cause standards to
23 be violated or a toxic pollutant to be present at any
24 place of present or foreseeable future use of the
25 groundwater."

1 "Almost any location in the state is
2 considered a place of foreseeable future use unless the
3 discharger can demonstrate that he can control the
4 future well drilling in that location for as long as
5 contamination from his discharge may persist there.
6 Private wells as well as public water supplies are
7 included in present or foreseeable future use and are
8 protected."

9 Q. Now, in particular with respect to the second
10 highlighted portion that you just read and Ms. Goad's
11 mention of a discharger's demonstration that he can
12 control the future well drilling in that location for as
13 long as contamination from his discharge may persist
14 there, is that -- is that kind of showing consistent
15 with your understanding of the kind of showing that the
16 Department historically would accept in concluding that
17 a place is not a place of withdrawal of water for
18 present or reasonably foreseeable future use?

19 A. Well, I can't think of any circumstance where
20 this -- except for sitting here today at this hearing,
21 that this was offered up as a demonstration.

22 Q. Okay.

23 Have you had -- in your tenure with the
24 agency, with the Groundwater Quality Bureau, have you
25 had any discussions with Commissioner Goad or others

1 concerning the kind of showing that a discharger might
2 make relating to controlling the future well drilling of
3 particular locations?

4 A. I can't recall any -- I can't recall any such
5 discussions.

6 Q. And your testimony is that this -- this
7 subject just never came up?

8 A. If it came up, I am -- was not familiar with
9 the circumstances.

10 Q. And your testimony today is that somebody's
11 landownership and ability to control a particular site
12 is irrelevant to the place of withdrawal that this
13 Commission must undertake? Is that the agency's
14 position?

15 A. Yes.

16 Q. Referring now to the larger set of
17 documents -- and I don't think this will take long. It
18 looks more intimidating in size than it really is. This
19 is -- I'm referring to Tyrone/Remand Exhibit 921, and
20 I'd like you to turn -- it's tabbed 1 through 24 on the
21 side, and I'd like you to turn to tab 1, please.

22 Do you recognize this document?

23 A. Yes.

24 Q. Am I correct that this is basically day one of
25 Phelps Dodge Tyrone's submissions to the agency under

1 the discharge plan program that was adopted in the
2 regulations that became effective in 1977?

3 A. By day one, I'm not sure --

4 Q. Is this the very first letter in which Phelps
5 Dodge Tyrone submitted materials to the agency in 1978,
6 if you know?

7 A. There are other materials in the record that
8 are earlier, I think, in anticipation of the
9 regulations, but in terms of -- but this is definitely
10 one of the earliest documents.

11 Q. And this May 8th, 1978, document is identified
12 down in the right-hand corner as part of the
13 administrative record, document A-4, correct?

14 A. That's correct.

15 Q. And so this is a document that's in the -- in
16 the operational discharge plan files at the agency,
17 correct?

18 A. That's correct.

19 Q. Is this letter a letter that submits the
20 initial discharge plan, DP-27, for the Mangas Valley and
21 Pipeline Draw?

22 A. That's correct.

23 Q. And I'd like to draw your attention to the
24 highlighted portions, the third and fourth paragraphs.

25 Is my understanding correct that these

1 statements in the third and fourth paragraph themselves
2 don't actually refer to the Mangas Valley discharge plan
3 submission but relate to submissions from Tyrone?

4 Let me just -- let me do it another way.

5 Why don't you go ahead and read the third
6 paragraph into the record, please.

7 A. Excuse me. "Phelps Dodge intends, in the near
8 future, to drill a well in the southwest quarter of
9 Section 35, Township 19 South, Range 14 West. The water
10 pumped from this well will be used for industrial and
11 other purposes. This well will be located in the Oak
12 Grove drainage, downgradient from and approximately 4.5
13 miles from the leach area."

14 Q. Do you know what that -- what wells that's
15 referring to, that statement?

16 A. Which well --

17 Q. That paragraph?

18 A. Are you asking if I know the precise location
19 of that well?

20 Q. Are those -- is that well that's referred to
21 in that paragraph one of the wells that are -- that are
22 down the Oak Grove drainage some -- quite some distance
23 from the MMD permit boundary?

24 A. I don't recall exactly where this well is.

25 Q. Okay.

1 And could you read the next paragraph, please?

2 A. "Phelps Dodge proposes to monitor the quality
3 of the water from this well on a regular basis. In the
4 unlikely event that any seepage develops from the leach
5 area in the future, it will be detected at this well.
6 Pumping of this well will then intercept any flow
7 downstream in the Oak Grove drainage before it can reach
8 a subsequent user.

9 "Since Phelps Dodge owns all the land in the
10 Oak Grove drainage down to San Vicente Arroyo, the
11 nearest possible subsequent user would be a minimum of
12 five miles from the well or approximately ten miles from
13 the leach area."

14 Q. What is your understanding when this letter
15 refers to the nearest possible subsequent user? What is
16 your understanding of what that term might mean?

17 A. I -- I really don't exactly know what that
18 term means. I could --

19 Q. Okay.

20 A. -- speculate that -- but --

21 Q. Okay. Well --

22 A. It could mean any number of things.

23 Q. Am I correct that in the two paragraphs you
24 just read the reference to the Oak Grove drainage is a
25 reference to the southeastern direction of the mine

1 site?

2 A. Yes. That's -- that's correct.

3 Q. Looking at your Exhibit 13?

4 A. Yes.

5 Q. And am I also correct that what's actually
6 submitted with this letter is a discharge plan for -- at
7 least what it says in the first sentence is that a
8 discharge plan is being sent for the Mangas Valley and
9 Pipeline Draw, which is up to the northwest end of the
10 mine; is that correct?

11 A. That's correct.

12 Q. Okay.

13 I'd like to have you turn to -- to the second
14 document, please, tab 2.

15 Is this a 1978 submission by Tyrone of a
16 discharge plan for the tailings ponds, collection ponds
17 and oxidation ponds in the Mangas Valley?

18 A. Yes.

19 Q. And is this the original discharge plan, as
20 far as you understand, that was submitted by Tyrone
21 which ultimately resulted in Discharge Plan 27?

22 A. Yes, it is.

23 Q. And you indicated in your testimony yesterday
24 that you were, for a time at least, the discharge
25 lead -- or excuse me -- the permit lead at the agency

1 for Discharge Plan 27; is that correct?

2 A. Yes, that's correct.

3 Q. Is this a document that you reviewed at any
4 time during your time of serving as the discharge -- or
5 excuse me -- the permit lead at the agency? Is this
6 something that you reviewed when you were discharge --
7 excuse me -- permit lead at the agency?

8 A. Yes, I did.

9 Q. And did you also review this document before
10 providing your written testimony about the 30-year
11 Tyrone history in this case?

12 A. Yes, I did.

13 Q. All right.

14 I'd like to turn to the first highlighted
15 page, which is the page that has Introduction at the
16 top.

17 Do you see where I'm looking?

18 A. Yes, I do.

19 Q. And could you go ahead and read that first
20 highlighted paragraph into the record?

21 A. "This plan shows that groundwater at the point
22 of withdrawal for present or reasonably foreseeable
23 future use meets the conditions as set forth in Sections
24 3-103, 3103.A" -- excuse me, I forgot the "(first
25 paragraph)" after 3.103 -- "3103.A, 3-103.B and 3-103.C

1 of the New Mexico Groundwater Regulations. Therefore,
2 the plan should be approved because it meets the
3 conditions as set forth in Section 3-109.C.3 of the
4 Regulations."

5 Q. Okay.

6 And does the next paragraph go on to basically
7 provide Tyrone's summary that the discharge plan being
8 submitted will not result in either concentrations in
9 excess of the standards of Section 3-103 or the presence
10 of toxic pollutants at any place of withdrawal of water
11 for present or reasonably foreseeable future use?

12 A. Yes.

13 Q. Now, I'd like you to turn to -- and some
14 portions of the facilities being permitted at this time
15 in 1978 already were in existence on the ground; is that
16 correct?

17 A. That's correct.

18 Q. I'd like you to turn to the page that's
19 numbered 2, which is the very next page, the portions
20 I've highlighted where the discharge plan submitted by
21 Tyrone refers to seepage quantity.

22 Do you see where I'm looking?

23 A. Yes.

24 Q. And is that -- is that section of this
25 discharge plan submission a section which identifies

1 seepage of -- tailings pond seepage into groundwater
2 based on certain acre-feet?

3 A. It appears to. Yes.

4 Q. And isn't it correct that this document is
5 telling at the time the Environmental Improvement
6 Division that in years 1973, for example, 5,260
7 acre-feet of tailings pond seepage was going into
8 groundwater?

9 A. That's correct.

10 Q. And the same for the other years listed, that
11 in those other years, as much as, in one year, 1977,
12 6,118 acre-feet of tailings pond seepage was making its
13 way to groundwater at this site; is that correct?

14 A. Yes.

15 Q. And on page 3, the portion at the top, is that
16 indicating that the -- the potential contamination that
17 is being discharged is high in fluoride and occasionally
18 high in pH and molybdenum?

19 A. Yes. It indicates that those are the
20 parameters in the discharge that --

21 Q. So --

22 A. -- occasionally exceed --

23 Q. So would you agree with me --

24 MS. FOX: If she could answer.

25 MR. BUTZIER: I'm sorry.

1 Q. Were you finished?

2 A. Yes.

3 THE REPORTER: State it again.

4 MS. MENETREY: That these parameters were
5 those that occasionally exceeded standards in the
6 discharge.

7 Q. (BY MR. BUTZIER) Well, the ones that were
8 occasionally were the pH and the molybdenum, correct?

9 A. Yes.

10 Q. And it's indicating that -- that it will be
11 higher in fluoride and doesn't limit that to
12 occasionally, correct?

13 A. That's true.

14 Q. And in the next highlighted portion, does this
15 discharge plan, submitted in 1980 -- '78 by Tyrone,
16 indicate that the tailings ponds are located on natural
17 drainages to the Mangas Valley?

18 A. Yes, it does.

19 Q. And it goes ahead and repeats essentially in
20 text form the information provided in the table on page
21 2, namely the number of acre-feet of seepage quantity
22 per year; is that correct?

23 A. Yes.

24 Q. And then there's another portion that's
25 highlighted further down the page, page 3, that talks

1 about the decant return water sumps and the seepage rate
2 that is occurring from -- from that facility; is that
3 correct?

4 A. Yes.

5 Q. And if you turn to page 5, under the heading
6 Groundwater Discharge Sites, what is your
7 understanding -- go ahead and take a look at that and
8 then tell me what your understanding is of what Tyrone
9 was providing to the agency in 1978.

10 A. Just -- are you asking me to look at
11 continuing onto page 6?

12 Q. Correct.

13 A. Okay.

14 Q. And if you'd like to just read it, that's
15 fine, or if you'd like to look at it and then give me
16 your understanding of what information is being
17 presented to the agency, I'll take either approach.

18 A. I'll go ahead and read it -- I mean look at
19 it.

20 Q. Okay.

21 A. Well, it appears that Phelps Dodge is
22 providing the location of wells within one mile of the
23 outside perimeters of each of the tailing impoundments
24 or associated facilities to the tailing impoundments.

25 Q. And on page 3, the document actually refers to

1 the outside perimeter of discharge sites; isn't that
2 correct?

3 MS. FOX: Where is that?

4 MR. BUTZIER: On the bottom of page 5.

5 MS. FOX: Oh, I thought you said page 3.

6 MS. MENETREY: That's what I thought, too.

7 MR. BUTZIER: Oh, I may have. I apologize if
8 I did.

9 MS. MENETREY: I'm sorry. Could you repeat
10 the question?

11 Q. (BY MR. BUTZIER) Tyrone's discharge plan
12 document specifically refers on page 5, in the
13 highlighted portion, to the outside -- the wells --
14 wells within one mile of the outside perimeters of the
15 discharge site; isn't that correct?

16 A. Yes.

17 Q. And discharge site is the same term we
18 referred to earlier that is defined in the Water Quality
19 Control Commission's Regulations, correct?

20 A. That's correct.

21 Q. And the one mile information outside the
22 perimeter of the discharge site -- is it safe to
23 conclude -- or would you conclude that that is submitted
24 pursuant to regulation 3106C.(2) of the Water Quality
25 Control Commission's Regulations?

1 A. Well, it would appear that the -- that Tyrone
2 was attempting to satisfy that requirement.

3 Q. And the note on page 6 that is highlighted in
4 the discharge plan submission from Tyrone notes that
5 there are probably other wells in the private land north
6 of the Phelps Dodge property line within a one-mile
7 radius of decant return water ponds.

8 Do you see where I'm looking?

9 A. Yes.

10 Q. Okay.

11 And in the portion highlighted on the bottom
12 of page -- page 6, this talks about the groundwater most
13 likely to be affected by the discharges from the
14 tailings ponds.

15 Do you see that?

16 A. Yes.

17 Q. And do you see that it indicates that the
18 groundwater discharge site in this area or the wells
19 most likely to be affected by the discharge are wells
20 10, 11, 12, 13, 14 and 15? Do you see where I'm
21 looking?

22 A. Yes.

23 Q. I'd like you to turn to page 9 of this
24 document, which is a page that begins with the heading
25 Monitoring, and then there's some highlighted portion

1 about groundwater quality.

2 Do you see where I'm looking?

3 A. Yes.

4 Q. And can you read A under the heading
5 Groundwater Quality?

6 A. "The monitoring of the quality of the
7 groundwater will be conducted at wells Number 14 and
8 15."

9 Q. And do you know where wells 14 and 15 are
10 located in relation to the Tyrone Mine site?

11 A. Approximately.

12 Q. And could you please identify that, if you
13 can?

14 And I can either put up --

15 A. Well --

16 Q. -- Mr. Blandford's exhibit or you can do it on
17 Exhibit 13 that you've already referred to, whichever
18 you prefer.

19 A. If I'm correct, I believe those wells are
20 located at -- near the intersection of the Wind Canyon
21 drainage and Mangas Wash at the -- you know, near the
22 base of the Number 3 Tailing Impoundment.

23 Q. And is it your understanding that wells --
24 monitoring wells 14 and 15 are actually outside of the
25 currently delineated MMD permit boundary?

1 A. On this map, they are outside of the boundary.

2 Q. And by this map, you're referring to -- what
3 do we call this? Blandford-5?

4 Am I correct in pointing to wells 14 and 15
5 that were going to be used as monitoring wells for
6 Discharge Plan 27?

7 A. Yes.

8 Q. Okay.

9 A. I believe so.

10 Q. And I'd like to turn now to page 10, and look
11 at paragraph H that's highlighted.

12 Could you go ahead and read that, please, into
13 the record?

14 A. "Given the volume of seepage and the distance
15 to the monitor system, there is no reason to expect
16 contamination to show up after cessation of operations
17 when such contamination has not reached the monitor
18 system prior to cessation of the long-term operations."

19 Q. And does the rest of the highlighted portion
20 on page 11 refer to the contingency plan being offered
21 by Tyrone in 1978?

22 A. Yes.

23 Q. Okay.

24 And I'd like you to go ahead and read, if you
25 would, the first part of the text under Contingency

1 Plan.

2 A. "Subsequent water users will be protected in
3 the following manner:"

4 "Monitoring of wells Number 14 and 15 will be
5 conducted as described previously."

6 "An analysis will be made of the analytical
7 results of the monitoring to detect any increase in the
8 concentration of any of the constituents listed in Table
9 6."

10 "If an increase in the concentration of any of
11 the constituents listed in Table 6 is detected, a rate
12 of increase will be calculated to predict when the
13 concentration of any of the constituents will exceed the
14 standards in Section 3-103."

15 "Phelps Dodge will begin the following upon
16 chemical evidence indicating a consistent increase in
17 concentrations beyond that expected due to normal
18 analytical error and natural geochemical variation in
19 aquifer water quality:"

20 "A feasibility study will be made to determine
21 the method which will be used to prevent harm to
22 subsequent users."

23 Q. And what is -- Ms. Menetrey, what is your
24 understanding of what Phelps Dodge Tyrone was telling
25 the agency in the portion that you just read, which is

1 tab 2 to Tyrone Exhibit 921, page 11?

2 A. Well, what it says is that Phelps Dodge is
3 proposing to monitor wells number 14 and 15 and that
4 their contingency plan proposal is if -- if the
5 constituent concentrations begin to increase in those
6 wells and -- that they will conduct some sort of a study
7 to, you know, determine the fate of the contamination.

8 Q. And --

9 A. And the standards will be exceeded.

10 Q. And specifically to prevent harm to subsequent
11 users, correct?

12 A. That is stated in the contingency plan.

13 Q. So isn't this -- isn't this telling the agency
14 that with respect to the facilities that it's proposing
15 a discharge plan for in the Mangas -- Upper Mangas
16 Valley, that there will be monitoring conducted at this
17 location, at wells number 14 and 15, as depicted on
18 Blandford-5, and that if it looks like there is a change
19 in the trends, that then a study will be conducted to
20 figure out how to protect subsequent users farther on
21 down Mangas Valley?

22 Isn't that what this document is talking
23 about?

24 A. This document is Phelps Dodge's proposal. It
25 doesn't say that subsequent users would be farther down

1 Mangas Valley specifically, but -- but this was Phelps
2 Dodge's proposal at the time.

3 Q. Okay. I'd like you to turn to tab 3 in
4 Exhibit 921, please.

5 Can you identify that document for the record,
6 please?

7 A. This is the letter dated November 9th, 1978,
8 from EID -- let's see -- approving the discharge permit
9 for Mangas Valley.

10 Q. And does the highlighted portion of this
11 November 9, 1978, discharge plan approval letter -- does
12 that specifically refer to the discharge plan submission
13 of the agency -- or of Tyrone rather?

14 A. I believe it does. Let me check the date.

15 Well, there appears to be -- the date on the
16 application in tab number 2 appears to be different than
17 the date referred to in the letter, so --

18 Q. And tab 2 just refers to April, 1978 --

19 A. So I can't -- I can't be absolutely sure from
20 this letter that --

21 Q. Okay.

22 A. -- that is the same document.

23 Q. Well, I'll represent to you that that's my
24 understanding, and if the Department determines to the
25 contrary, I will stand corrected, but -- does this

1 letter also -- let me ask you just a process question.

2 In the early days of the discharge plan
3 program --

4 MS. FOX: Objection.

5 Q. (BY MR. BUTZIER) -- with the agency --

6 MS. FOX: I've got to object to his -- the
7 testimony that he just provided about what his
8 understanding is of this document.

9 MS. PADILLA: Sustained.

10 Q. (BY MR. BUTZIER) Ms. Menetrey, do you know of
11 any other discharge plan submitted by Tyrone that might
12 be referred to as having been received on May 10th,
13 1978, by the agency?

14 A. I can't recall. I don't remember one. I
15 can't recall if there was --

16 Q. Okay.

17 A. -- another submittal that might have referred
18 to.

19 Q. And back in the early days of the discharge
20 plan program, is it the case that typically the approval
21 of a discharge plan would simply come in the form of a
22 letter from the agency referring to various documents,
23 typically including the discharge plan and maybe further
24 clarifying letters? Is that correct?

25 A. That's true. And that didn't mean the

1 Department necessarily agreed with everything that was
2 in those -- those documents, but that is how plans were
3 approved in general under that format.

4 Q. And in particular, this one refers not only to
5 the discharge plan that Tyrone had submitted, but also a
6 couple of letters, correct? September 11 and
7 November 8th, 1978?

8 A. Yes.

9 Q. And the September 11 letter that's referred to
10 in the discharge approval letter at tab 3 appears as tab
11 4, and I'd ask you to turn to tab 4, please.

12 Is the first page of tab 4 a letter from a
13 Phelps Dodge Tyrone manager to the Program Manager of
14 the Water Pollution Control Section of the Environmental
15 Improvement Division?

16 A. Yes.

17 Q. And if you'd go back a couple pages to the
18 page numbered 2 at the top.

19 Again, I'm at tab 4 of Tyrone Exhibit 921, and
20 I'm referring to the page in tab 4 that's numbered
21 number 2.

22 Do you see where I'm looking?

23 A. Wait a minute. Back up.

24 MR. FESMIRE: The third page back numbered
25 number 2.

1 MR. BUTZIER: Thank you.

2 MS. MENETREY: Third page back. Okay.

3 MR. BUTZIER: Behind the letter to Maxine
4 Goad.

5 MS. MENETREY: Yes.

6 Q. (BY MR. BUTZIER) And could you read the
7 highlighted portion of paragraph 3b, please?

8 A. "Phelps Dodge maintains, as stated in the
9 proposed Discharge Plan, that monitoring wells 14 and 15
10 at the proposed frequency will adequately protect
11 subsequent users. Monitoring wells Number 10 through 13
12 at the same frequency is not necessary in this regard."

13 Q. Is it your understanding that this submission,
14 the September 11 submission from Tyrone, most likely
15 responds to a letter that Tyrone received from the
16 agency asking for follow-up information relating to the
17 discharge plan submission?

18 Does it appear to be responding to -- to a
19 letter from the agency?

20 A. Yes, it appears to be.

21 Q. And is this stating Tyrone's position that
22 monitoring wells -- monitoring at wells 14 and 15 as
23 previously proposed would be adequate to protect
24 subsequent users?

25 A. That's what it says in this letter.

1 Q. And is it your understanding that subsequent
2 users would be potential users of groundwater that would
3 be downgradient, in other words, farther up -- farther
4 down Mangas Valley from the locations of monitoring
5 wells 14 and 15?

6 A. Not necessarily. I don't believe there was
7 any -- ever any analysis of what the subsequent users --
8 where they would have been.

9 Q. Okay.

10 And the next highlighted portion on page 4,
11 would you read that, please?

12 A. "Phelps Dodge maintains that the Contingency
13 Plan does provide adequate protection for subsequent
14 users."

15 Q. So again, this is -- this is likely a response
16 to some questions that were raised by the agency,
17 correct?

18 A. Probably, yes.

19 Q. And if you'll turn to -- and the document at
20 tab 4, the September 11, 1978, document, that's one of
21 the two letters referred to in the discharge plan
22 approval letter dated November 9th that appears as -- at
23 tab 3 of this exhibit packet; is that correct?

24 A. Yes. It appears to be.

25 Q. And at tab 5, we have the other letter that's

1 referred to in the discharge plan approval letter, which
2 is the November 8th, 1978, letter, again from a manager
3 of Tyrone Mine to the program manager at the agency; is
4 that correct?

5 A. Yes.

6 Q. And if you'd like, you could take a minute to
7 look at that, but I don't think -- I didn't find it
8 particularly relevant or -- I didn't find it to change
9 anything about the prior submissions as to the
10 monitoring wells, the contingency plan or the protection
11 of subsequent users.

12 Do you see that? Would you agree with that?

13 A. Yes. It appears it has to do with water level
14 measurements.

15 Q. Okay.

16 So taking Exhibits -- Exhibits 2, which is the
17 discharge plan submission, 3, which is the discharge
18 plan approval, 4, which is the letter to Maxine Goad
19 responding to some questions from the agency, and 5,
20 which is the letter that you just referred to as
21 addressing water depth issues, let's talk about -- let's
22 talk about what was -- what was being approved in this
23 instance.

24 Am I correct that this approval of DP-27,
25 which was the very first -- well, I don't know if it was

1 the first approval, but it was the earliest discharge
2 plan submission.

3 Am I correct that this discharge plan approval
4 allows seepage to occur to groundwater beneath the
5 tailings disposal facility and the water decant facility
6 and that that's set forth in the plan and that's
7 understood by the agency and that's approved? Would you
8 agree with that?

9 A. Yes. Certainly there's many facilities,
10 especially unlined facilities, where seepage is part of
11 the discharge. It's -- it happens as a consequence.

12 Q. Okay.

13 And am I also correct in understanding from
14 this sequence of documents that Phelps Dodge Tyrone
15 satisfied the agency that the actual location of the
16 facilities were not locations where groundwater needed
17 to be protected, as you have used that term?

18 A. No. I don't agree that -- that that was the
19 measure of satisfying the agency. At the time that this
20 permit was approved, it's very important to note that
21 there were several wells in the valley, but none of them
22 showed any contamination above water quality standards,
23 regardless of all the seepage that had gone on for eight
24 years.

25 And so you really have to take yourself back

1 in time, not look at things as they are now, but how
2 they were then. There was no exceedances.

3 And again, not all the documents associated
4 with the discharge plan approval are in this packet, but
5 there were certainly many representations by Tyrone that
6 there was absolutely no expectations that groundwater
7 standards would be exceeded within the Mangas Valley
8 monitor wells.

9 Now, this is a very early discharge permit --
10 or discharge plan. The regulations were extremely
11 recent. And there's no question that the very early
12 permit applications -- or I guess discharge plans is
13 what I'll call them, because we have permits now -- were
14 definitely fairly weak in the monitoring and the
15 contingency aspects.

16 And that's an area that we've evolved
17 dramatically in -- I would say over the last 30 years.
18 But at that time, you know, looking at the permit, the
19 Department was satisfied that groundwater standards
20 would not be exceeded. And that's my --

21 Q. And is it your testimony --

22 MS. FOX: Let her finish.

23 MR. BUTZIER: I'm sorry.

24 Q. If I didn't let you finish, go ahead and
25 finish.

1 A. I think I'm done. I lost my train of thought
2 there.

3 Q. Sorry.

4 Would you -- Tannis, would you like us to see
5 where she was on the record and have her finish or --

6 MS. FOX: See if it -- yeah.

7 MR. BUTZIER: Okay.

8 MS. FOX: I mean, you did -- her voice trails
9 off, and then you cut her off, and you just need to be a
10 little careful of that, please.

11 MR. BUTZIER: Cheryl, could we go back in the
12 transcript and read her last answer, please?

13 (Record read.)

14 MS. MENETREY: Ah. I guess I did stop
15 midpoint there.

16 So I think that as a whole, that when the
17 Department was looking at this permit, they thought that
18 standards would be met, and it didn't relate to that
19 there were not places of withdrawal for wells closer to
20 impoundments than wells 14 and 15.

21 You know, certainly within a couple of years
22 on this particular permit, even though those wells 14
23 and 15 were the wells that were monitored, there were
24 several other wells in the valley which were also being
25 monitored by Phelps Dodge, and I think within a couple

1 of years of this permit approval, there were some
2 elevated concentrations of various contaminants.

3 And if you continue to look at the
4 correspondence, it's clear that the Department was very
5 concerned about the -- that this contingency plan
6 proposed in this discharge plan was inadequate and --
7 and you see a chain of events where it was tightened up
8 quite a bit.

9 Q. (BY MR. BUTZIER) So is it your testimony that
10 all of these references to protecting subsequent users
11 and submitting a plan that will meet standards at places
12 of withdrawal of water for present or reasonably
13 foreseeable future use -- that those were essentially
14 ignored by the agency and that the discharge plan was
15 approved with the agency understanding that beneath the
16 facilities where the seepages were going to occur were
17 places where standards had to be met? Is that your
18 testimony?

19 A. I wouldn't want to imply that the Department
20 simply ignored any of the -- those sorts of statements
21 in the discharge plan application.

22 It was very common in discharge plan
23 applications from Tyrone that there would be statements
24 regarding so-called subsequent users, but I don't
25 believe there's anything in the record where there was

1 discussion or confirmation or affirmation of where these
2 subsequent users would be, or any determination in that
3 regard.

4 I believe that the Department -- certainly
5 it's been my experience -- looks at a discharge plan
6 application and really is making sure that they
7 believe -- or that it believes that the requirements of
8 the regulations have been met by the plan. And that
9 does not mean that if the plan was approved, that there
10 was agreement with all of the statements that were made
11 by an applicant in the plan.

12 And so my -- you know, looking at the general
13 course of permitting on DP-27, yeah, I believe that the
14 Department expected for standards to be met within
15 Mangas Valley.

16 Q. Including immediately -- your testimony is
17 including immediately beneath the facility where the
18 seepage was to occur, correct?

19 A. The general course of conduct under -- over
20 permitting this facility required that standards be met
21 underneath the tailing impoundments.

22 Q. And are you referring to specific documents
23 that you recall seeing in the administrative record to
24 that effect?

25 A. Well, certainly the more recent correspondence

1 reflects that more, but without -- I mean, again,
2 there's so many documents that I don't have all the
3 documents memorized.

4 But I certainly refer -- or refer -- I recall
5 that -- in the late '80s, I recall a document where
6 there was a letter from the Department making it very
7 clear that if standards were exceeded at points below --
8 and when I say below, I'm saying, you know, upgradient
9 in the valley from wells 14 and 15 -- that if there were
10 exceedances, that those need to be returned to
11 groundwater standards.

12 Q. Okay.

13 A. So I think there's a lot of documents there --

14 Q. Give me the high sign.

15 A. -- that clarify -- that add -- I'm sorry,
16 what's going on -- that add clarification to that.

17 You know, I can't stress it enough. These
18 early documents were often very vague. And I
19 remember -- in fact, I think it was in 1983 -- that
20 whoever -- I think it was Albert Dye was reviewing this
21 and made comment that this was incredibly vague -- and I
22 don't want to say incredibly was a quote, but that it
23 was very vague, and that clearly, you know, the
24 Department couldn't even really tell what would happen
25 if standards were exceeded in the valley.

1 So I just wanted to make that comment.

2 Q. Okay.

3 And let's turn to the next document in the
4 packet, which is tab 6.

5 Is that a memorandum from Mr. Charles Nylander
6 to Ms. Maxine Goad, the Program Manager for Permits and
7 Regulations Unit?

8 A. Yes, it is.

9 Q. And could you read, please, the first
10 highlighted portion of the first paragraph in that
11 document?

12 A. "I have completed a technical review of the
13 above referenced discharge plan received May 10th, 1978,
14 and the additional information received from Phelps
15 Dodge Corporation and dated September 11th, 1978 and
16 November 8th, 1978. This plan adequately shows that
17 groundwater at the point or" -- I believe it's supposed
18 to say of -- "withdrawal for present or reasonably
19 foreseeable future use meets the condition set forth in
20 Section 3-103 (first paragraph), 3-103A., 3-103B. and
21 3-103C. of the New Mexico Water Quality Control
22 Commission regulations."

23 Q. And apart from what you've just discussed in
24 your answer previously about some -- some thought
25 processes that occurred in 1983, do you know what

1 Mr. Nylander was referring to when he said in the
2 portion you just read that the plan adequately shows the
3 groundwater at the point of -- or withdrawal for present
4 or reasonably foreseeable future use meets the
5 conditions set forth in the sections referenced?

6 Do you have an understanding of what -- what
7 he meant by that?

8 A. Well, it's not clear in this memorandum,
9 because at the time that this was written, there were no
10 groundwater exceedances in -- associated with the
11 tailing impoundments. And so this memorandum does not
12 define a particular point of withdrawal.

13 Q. And it's your --

14 A. So could it --

15 Q. Sorry.

16 A. I'm sorry.

17 I guess it could have been anywhere. It
18 doesn't -- it doesn't state in this memorandum.

19 Q. And it's your testimony that never in the
20 30-year history did the Department, in fact, define a
21 place of withdrawal for purposes of review and approval
22 of a discharge plan; is that correct?

23 A. I have -- do not recall that ever being
24 defined.

25 Q. Now, let's turn to tab 7 in Tyrone

1 Exhibit 921.

2 Is this a letter that also relates to
3 Discharge Plan 27?

4 A. Yes.

5 Q. And in the first paragraph -- this is a
6 June 8th, 1984, letter renewing DP-27; is that correct?

7 A. Yes.

8 Q. And am I correct that the first paragraph of
9 this letter again refers to the information and material
10 submitted as part of the original discharge plan
11 approved November 9th, 1978, which is a reference to the
12 letter at tab 3 of Tyrone 921?

13 A. Yes.

14 Q. And again, is that pretty much what the --
15 what the practice was in the mid 1980s, that as
16 discharge plans were renewed, there were references back
17 to the materials that were submitted by the proponent of
18 the discharge plan?

19 A. Yes. That's correct. That is the general
20 process.

21 Q. Okay.

22 Now, you talked about Mr. Albert Dye and
23 some -- some background, I think, related to 1983.

24 Let's turn to tab 8.

25 Is this a letter to the same Albert Dye that

1 you were referring to?

2 A. Yes.

3 Q. And in the first highlighted part of this,
4 does this appear to be a Tyrone letter responding to an
5 Albert Dye letter of August 5th, 1983, that relates to
6 the renewal we just looked at --

7 A. Yes.

8 Q. -- for Discharge Plan 27?

9 A. Yes.

10 Q. And in the highlighted part of the bottom of
11 that page, could you read that into the record, please?

12 A. "The quantity of seepage from the tailing
13 ponds is based upon an input-output analysis. The
14 formula used to calculate tailing pond seepage is
15 approved by the State Engineer and the results are sent
16 to his office on a monthly basis on the form that was
17 attached to the original Mangas Valley Discharge Plan
18 submittal."

19 Q. And on page 2 of the document at tab 8 of this
20 packet, could you read the highlighted portions at
21 paragraph 4?

22 A. "A map showing the property lines of Phelps
23 Dodge Corporation and its subsidiaries in the Mangas
24 Valley is enclosed with this letter. Other property
25 owners in this area are outlined in yellow on the map."

1 Q. Now, just as a side comment, this letter
2 provided a map of property lines of Phelps Dodge
3 Corporation and its subsidiaries in the Mangas Valley.

4 And I'm recalling Mr. Olson's testimony that
5 he was learning for the first time that Phelps Dodge
6 Corporation -- Phelps Dodge Tyrone didn't actually own
7 all the properties at this site.

8 Were you also hearing that for the first time
9 when that was discussed in Mr. Mohr's and Mr. Shelley's
10 testimony?

11 A. No. I knew that there were other subsidiaries
12 that had ownership out there, as well as the fact that
13 there's subsurface land or mineral rights that are also
14 owned in Mangas Valley by the State Land Office, so --
15 so I was aware that --

16 Q. And institutionally --

17 A. -- there was some other ownership.

18 Q. I'm sorry.

19 And institutionally the agency was aware since
20 at least September 6th, 1983, or approximately
21 September 6th, 1983, that Phelps Dodge and subsidiaries
22 owned -- Phelps Dodge Corporation, the parent, and
23 subsidiaries of the corporation owned property at this
24 site, correct?

25 A. Yes. I think this was a long time ago, and

1 the degree of recollection is -- you know, I certainly
2 was refreshed on this issue through this hearing.

3 Q. Now, let's look at page 3 of the September 6
4 letter to Mr. Dye, which is tab 8 of Tyrone Exhibit 921.

5 Could you read the highlighted portion on page
6 3, please?

7 A. "We believe that this monitoring system gives
8 good coverage of the Mangas Valley and should allow an
9 early warning of any groundwater quality problems from
10 any source."

11 Q. And the next paragraph?

12 A. "We believe that our contingency plan is still
13 an effective means to protect the groundwater in the
14 Mangas Valley. Although no one method is specified in
15 the plan to prevent harm to subsequent users, we have
16 always considered the interception of a seepage plume to
17 be technically feasible in the Mangas Valley.

18 "Mitigative actions in this area are not
19 likely to be needed because the natural chemical and
20 physical processes of sorption, dilution and dispersion
21 in combination with the quality of the effluent have
22 proven to be generally very effective in preventing
23 lasting effects on the Mangas Valley groundwater system
24 by the tailing ponds."

25 Q. So is it your understanding that Tyrone was

1 telling the agency that if a seepage plume develops and
2 is identified by the monitoring wells for this facility,
3 that it will be able to take mitigative actions, but
4 that probably they won't be needed because of natural
5 and chemical processes, including sorption, dilution and
6 dispersion? Is that your understanding of what the
7 agency was telling -- or the company was telling the
8 agency?

9 A. It appears the company was telling the agency
10 yes, that they could potentially install a seepage --
11 well, some sort of seepage interceptor system in the
12 future if it was necessary. But again, were reinforcing
13 there really aren't any problems right now.

14 Q. If you --

15 A. Or at that time. Excuse me.

16 Q. And if you'll turn to the enclosure with the
17 letter at tab 8. If you'd take a look at that for a
18 minute, and in particular the highlighted figures in
19 that table.

20 Am I correct in understanding that this
21 submission to the agency from Tyrone identifies
22 acre-feet of seepage from various facilities including
23 dam 1, dam 2, dam 3, dam 1X and dam 3X for the years
24 1978 to 1983?

25 A. It appears to. Yes.

1 Q. Okay.

2 And it -- and it's referring to seepage from
3 those facilities to groundwater; isn't that correct? If
4 you know.

5 A. I don't know if all of that seepage went to
6 groundwater, but certainly from the ponds.

7 Q. And a lot of the seepages identified on this
8 table occurred after the original approval of Discharge
9 Plan 27 approved on November 9th, 1978; isn't that
10 correct?

11 A. Yes.

12 Q. And notwithstanding this information, the
13 agency approved the renewal of discharge plan DP-27 on
14 June 8th, 1984, as reflected at tab 7; isn't that
15 correct?

16 A. That's correct.

17 Q. All right. Let's turn to tab 9 in Tyrone 921.
18 Can you identify that document, please?

19 A. It's a 19 -- a letter from EID dated
20 August 5th, 1983, to Richard E. Rhoades, the Manager of
21 Phelps Dodge Corporation, regarding the Mangas Valley
22 discharge plan.

23 Q. And does this letter appear to request certain
24 information from Tyrone in the context of the agency
25 considering whether to review DP-27 in the 1983 time

Pages 2579 – 2585
(intentionally omitted)

1 And before we break -- I appreciate the
2 reminder -- is there anyone in the audience that would
3 like to provide any public testimony or public comment
4 at this time?

5 Seeing none, we'll recess until 1 o'clock.

6 Thank you.

7 (Proceedings in recess from 11:45 a.m. to
8 1:06 p.m.)

9 MS. PADILLA: Okay. I think we can reconvene.

10 I hope everyone had a nice lunch. And I think
11 we can pick up where we left off.

12 Mr. Butzier, I think you still had some
13 questions for Ms. Menetrey.

14 MR. BUTZIER: Thank you, Madam Chair.

15 Q. Good afternoon.

16 A. Good afternoon.

17 Q. Ms. Menetrey, I was in Tyrone/Remand
18 Exhibit 921, and I think I finished off with tab 10, and
19 now I'd like to move on to tab 11.

20 And just for the record, this starts to get
21 into documents that relate to Discharge Plan 166.

22 And am I correct, Ms. Menetrey, that you were
23 also the permit lead for a certain time period for
24 Discharge Plan 166?

25 A. Yes, I was.

1 Q. And you familiarized yourself with -- with the
2 operational discharge plan files for 166 before
3 providing your recent testimony in this case?

4 A. Yes, I did.

5 Q. And what was the period of time when you
6 served as the permit lead for Discharge Plan 166?

7 A. It would have been in the time frame between
8 1994 and 2000. I couldn't say that it was -- started
9 immediately. So I don't recall the exact dates. But it
10 would have been within that time period, several years
11 within that time period.

12 Q. And when you became the permit lead, did you
13 undertake to go back and look at the historical record
14 relating to DP-166?

15 A. Yes, I did.

16 Q. Now, would you please take a look at the
17 document at tab 11 of Exhibit 921, and would you please
18 identify that document for the record?

19 A. This is a letter from EID dated July 20th,
20 1981, from -- it's from the Director of the
21 Environmental Improvement Division, approving the
22 discharge plan for DP-166.

23 Q. And again, just so that we can orient
24 ourselves to the site, could you please identify the
25 area that 166 covers?

1 A. Yes.

2 Q. You're looking at Exhibit 13, NMED Exhibit 13.

3 A. Yes. DP-166 covers a large area, including
4 the Main Pit, in the center of the mine, the SX/EW plant
5 to northwest of that, several other open pits, including
6 San Salvador Hill Pit, the Copper Mountain Pit, and also
7 the Number 2 Leach Stockpile. And I believe there's
8 some waste rock piles in that area, as well.

9 Q. And is -- am I correct that this July 20,
10 1981, letter is the original approval of Discharge Plan
11 166?

12 A. Yes, I believe it is.

13 Q. And turning now to tab 12, there's a letter
14 and then an attached proposed discharge plan.

15 Do you see where I'm looking?

16 A. Yes.

17 Q. Is this the submission, to the best of your
18 knowledge, that is referred to in the July 20, 1981,
19 letter where it says "The approved discharge plan
20 consists of the plan received on March 24, 1981," et
21 cetera?

22 A. I -- I believe so.

23 Q. Now, in the document that it -- well, the
24 first document behind tab 12 is a March 23, 1981,
25 letter; is that correct?

1 A. Yes.

2 Q. And that letter describes generally what is
3 being proposed and what is being submitted to the
4 agency, correct?

5 A. That's correct. It's the proposed discharge
6 plan.

7 Q. And in the actual discharge plan that was
8 enclosed with that letter, I'd like you to refer, if you
9 would, to page 3 of the proposed plan.

10 Does the highlighted part of page 3 refer to
11 sites of potential discharge to groundwater?

12 A. Yes. That's what it says.

13 Q. And it's addressing sites that include the
14 Number 2 Leach Dump, the pregnant leach solution sump at
15 the plant site, the pregnant leach solution sump below
16 the dump, a section of the Niagara Tunnel serving as a
17 pregnant leach solution sump and the raffinate solution
18 pond at the plant site? That's what this plan covers,
19 correct? Or that's what -- that's what this plan says
20 are sites of potential discharge to groundwater,
21 correct?

22 A. That's what it says. Yes.

23 Q. And turning to page 4, page 4 indicates in the
24 first highlighted section that the infiltration rate
25 from the Number 2 Leach Dump, the very first item listed

1 on page 3, is estimated to range from approximately
2 1,200 to 1,300 gallons per minute; is that correct?

3 A. That's what it says. Yes.

4 Q. And for the pregnant leach solution pond at
5 the plant site, the highlighted portion says that the
6 seepage quantity at that site will be approximately
7 150,000 gallons per year?

8 A. That's correct. That's what it says.

9 Q. And for the pregnant leach solution pond below
10 the dump, the seepage quantity at this rate will be
11 approximately 1,200,000 gallons per year; is that
12 correct?

13 A. That's correct.

14 Q. Now, on page 5 of the same document, which is
15 tab 12 of Exhibit 921, is the highlighted part a
16 discussion of basically the flow characteristics of the
17 discharges discussed previously in the plan?

18 A. That's -- that's what it says. Yes.

19 Q. And in the very first part of the highlighted
20 paragraph starting with "Pregnant leach solution," could
21 you read that into the record, please?

22 A. "Pregnant leach solution will infiltrate to
23 the groundwater directly underlying the dump from the
24 bottom of the leach dump. Infiltration will occur
25 predominantly through faults and fractures in the rock

1 and, to a lesser extent, through interconnected
2 microfractures in the rock."

3 The next paragraph, as well?

4 Q. Yes, please.

5 A. "The existing groundwater gradient through the
6 leach dump area is to the north. In general,
7 groundwater flows parallel to its gradient. However,
8 over small areas (several hundreds of feet) in a
9 fractured medium, such as exists here, the direction of
10 flow may be dominated by the direction of the fractures.
11 Over large areas, where fractures and faults intersect,
12 the flow direction is dominated by the groundwater
13 gradient. Hence, the expected flow of any leachate
14 intersecting the groundwater is to the north."

15 Q. And then turning to page 7, the highlighted
16 portion at the top, does that refer to -- again to the
17 infiltration rates from the leach dumps?

18 A. Yes, it does.

19 Q. And again it refers to 1,200 to 1,300 gallons
20 per minute of infiltration?

21 A. Yes. That is what is referred to.

22 Q. Okay.

23 Now, the next section of this proposed
24 discharge plan refers to expected concentrations of
25 3-103 contaminants.

1 Do you see where I'm looking?

2 A. Yes, I do.

3 Q. And in that section, including onto the next
4 page, is that a discussion of what the expected
5 concentration of the contaminants being -- infiltrating
6 into groundwater will be?

7 A. I believe that this is a discussion of what
8 the concentration of contaminants would be in the
9 discharge.

10 Q. Okay.

11 A. Not necessarily -- I mean, that's what's
12 described here, not necessarily what would infiltrate
13 into groundwater.

14 Q. Okay.

15 Is there -- well, let's turn to the next --
16 the table on page 8. And I've highlighted three
17 different things, but I'd actually like to draw
18 attention to six things.

19 And the first line that I'd like to have you
20 look at is the copper line, Cu.

21 Do you see where I'm looking?

22 A. Yes.

23 Q. Does that indicate that the concentration of
24 copper in discharge related to the pregnant leach
25 solution, the middle column, is 1,000 parts per million,

1 or milligrams per liter?

2 A. That's what the table says. Yes.

3 Q. And do you know what the 3103 standard for
4 copper is?

5 A. I'm going to refer to the regulations just to
6 make sure that I --

7 Q. Thank you.

8 A. -- get that correct.

9 And the standard is 1 milligram per liter.

10 Q. So this document, then, is a document where
11 Tyrone is telling the agency that it's going -- its
12 pregnant leach solution which is going to discharge into
13 groundwater is 1,000 times above the groundwater
14 standard in 3103 for copper; isn't that correct?

15 A. That's what it says the discharge could
16 potentially contain. It certainly doesn't say that
17 that's necessarily what's going to enter the
18 groundwater.

19 Q. Okay.

20 The next item listed is Fe.

21 Is that iron?

22 A. That's correct.

23 Q. And does that indicate that 1,000 parts per
24 million of iron is in the pregnant leach solution?

25 A. Yes, it does.

1 Q. And do you know what the standard is for iron?

2 A. I'm looking at the regulations, and I see that
3 it is 1 milligram per liter.

4 Q. So again, this is -- this is telling the
5 agency that the pregnant leach solution which is being
6 discharged is 1,000 times above the then existing
7 standard for iron, correct?

8 A. That's correct.

9 Q. And let's talk about the next item on the
10 table.

11 What does that refer to, the Mn?

12 A. Manganese.

13 Q. And does that indicate that there's going to
14 be 1,500 parts per million, or milligrams per liter, in
15 the pregnant leach solution that's going to be
16 discharged from the Number 2 Leach Stockpile?

17 A. Yes, it does.

18 Q. What is the standard for manganese?

19 A. The standard is -- according to the 3103 is
20 .2 milligrams per liter.

21 Q. And has it always -- has the manganese
22 standard always been .2?

23 So point -- let me withdraw --

24 A. I don't recall.

25 Q. Let me withdraw that question.

1 .2 is obviously less than 1 part per million,
2 correct?

3 A. Yes.

4 Q. So this is several times -- what's listed on
5 the table on page 8 for manganese is several thousand
6 times higher than the existing standard, correct?

7 A. That's correct.

8 Q. And why don't you go on and read the parameter
9 and the parts per million for the three that I have
10 highlighted on this table.

11 A. The three that you've highlighted, the first
12 one is sulfate, the concentration predicted in the PLS
13 in the table is 25,000 parts per million, and the
14 raffinate is 27,000 parts per million.

15 The next parameter is total dissolved solids,
16 and the concentration predicted in the PLS is 37,000
17 ppm, and in the raffinate 37,000 ppm.

18 And for -- the next parameter is pH, and for
19 the pregnant leach solution is listed as 2.4, and 1.9
20 for the raffinate.

21 Q. And what -- do you know what the standard is
22 for sulfate?

23 A. It is 6 -- I believe -- I'm -- yes.
24 600 milligrams per liter.

25 Q. Do you know what the standard is for TDS?

1 A. It's 1,000 milligrams per liter.

2 Q. And do you know what the range -- acceptable
3 range for pH is?

4 A. 6 to 9.

5 Q. And you're referring in those -- in this
6 instance to the standards set forth in the 3103
7 standards of the -- of the Water Quality Control
8 Commission?

9 A. Yes. That's what I'm referring to.

10 Q. Okay. Let's look at page 9 in tab 12.

11 Is the highlighted portion there essentially
12 telling the agency that it's the pregnant leach solution
13 that can potentially enter the groundwater?

14 A. That's what -- that's what it says. Yes.

15 Q. And the pregnant leach solution, for example,
16 that's coming from the pregnant leach solution pond we
17 discussed is coming at the rate of approximately 1.2
18 million gallons per year, as reflected on page 4 of this
19 document; isn't that right?

20 A. And where are you looking? Did you say 1.4
21 million --

22 Q. 1.2 million. I'm looking under Pregnant Leach
23 Solution Pond Below the Dump, at the middle of page 4 in
24 the discharge plan, at tab 12 of Tyrone Exhibit 921.

25 A. Yes. That's correct.

1 Q. Now, is it your understanding that a discharge
2 plan in which these volumes of pregnant leach solution,
3 -- with these levels of constituents for copper, iron,
4 manganese, sulfate, TDS and pH, is something that the
5 agency could approve if it believed that the area
6 immediately under the facilities were places of
7 withdrawal of water for present or reasonably
8 foreseeable future use?

9 A. Yes. I -- I do think that the -- the
10 Department could approve a discharge permit for
11 discharges of that concentration if the groundwater
12 underneath is considered a place of withdrawal.

13 Q. And could you explain that, please?

14 A. Well, if -- it's going to be in part based on
15 the demonstrations by the applicant. I mean, clearly,
16 as I said before, when these discharges -- looking back
17 in history, I think the record shows pretty strongly
18 that the -- the contamination that resulted from this
19 discharge was far more than was ever anticipated.

20 You're in a fractured system. You really
21 don't -- you know, there really wasn't a good knowledge
22 about how this particular sort of discharge would impact
23 groundwater.

24 And getting back to your question, I mean,
25 clearly if -- today we know that if we have liners and

1 things like that below stockpiles, that that can, you
2 know, control this sort of source of contamination.
3 These are things that we didn't have as much knowledge
4 about in the past.

5 And certainly, as I said before, Phelps Dodge
6 requested this kind of a discharge for many of the leach
7 stockpiles, and not so much with this early permit
8 application, but with -- certainly with most of the
9 discharge permit applications, was very confident that
10 there would be minimal impacts to groundwater from this
11 very sort of discharge.

12 Q. Is it your testimony that when Discharge Plan
13 166 was approved on July 20th, 1981, that the agency at
14 that time considered the groundwater immediately beneath
15 the pregnant leach solution pond, where 1.2 million
16 gallons per year were being discharged -- that the
17 agency believed that the water beneath that facility was
18 a place of withdrawal of water for present or reasonably
19 foreseeable future use?

20 A. Yes.

21 Q. I'd like to turn a little farther into this
22 document, number 12, tab 12, to the next place where I
23 have highlighting, which is on page 19.

24 Do you see where I'm looking?

25 A. Yes.

1 Q. And could you please read the highlighted
2 portions on page 19 and 20, not including the conclusion
3 on page 20?

4 A. "Contingency Plan.

5 "Subsequent water users will be protected in
6 the following manner:

7 "Monitoring" -- did you say to just read the
8 highlighted --

9 Q. Well, I'm sorry. You can read that whole
10 section.

11 A. It's not all highlighted, that sentence.

12 Q. That's fine.

13 A. "Monitoring of wells 6-4, 6-5, 4-1, 4-2, 4-3,
14 4-4 and 4-5 will be conducted and described -- as
15 described previously."

16 Q. And then paragraph C.

17 A. "An analysis will be made of the analytical
18 results of the monitoring to detect any increase in the
19 concentration of any of the EID-required constituents."

20 Q. Okay. That was paragraph B.

21 Could you go ahead and read paragraph C, which
22 I've highlighted?

23 A. "Phelps Dodge will begin the following upon
24 chemical evidence indicating a consistent increase in
25 concentrations beyond that expected due to normal

1 analytical error and natural geochemical variation in
2 aquifer water quality."

3 Q. And then go ahead and read the four
4 paragraphs, please.

5 A. "A feasibility study will be made to determine
6 the method which will be used to prevent harm to
7 subsequent users."

8 2 -- was --

9 Q. If you'd like, I can go ahead and read it.
10 The second one is, "Based upon the method
11 selected, an engineering study will be conducted to
12 determine how the method will be implemented," correct?

13 A. Yes.

14 Q. The third paragraph -- numbered paragraph
15 says, "Upon completion of the engineering study, any
16 construction required to implement the method will be
17 done," correct?

18 A. Yes.

19 Q. And 4 says, "The scheduling of the above steps
20 1, 2, and 3 will be such that they will be completed,
21 and operation of the method will commence before any
22 subsequent user is harmed," correct?

23 A. Yes, that's correct.

24 Q. So again, is this -- is this document telling
25 the agency that essentially monitoring will be conducted

1 at various locations and that if there are certain
2 increases that various studies will be done to determine
3 how best to prevent harm to subsequent users?

4 A. Well, this is what this contingency plan is
5 proposing, but there were several changes to this --
6 this contingency plan was never actually implemented in
7 practice, and I believe there was other correspondence
8 regarding the contingency plan.

9 Q. Okay.

10 A. But yes, in answer to your question, this is
11 the proposal.

12 Q. And is there -- are you aware of other --
13 other documents in the administrative record that change
14 the basic concept of monitoring and then implementing a
15 contingency plan if certain things show up in the
16 monitoring wells?

17 A. I recall that there is other correspondence in
18 the file. I wouldn't be able to sit here and tell you
19 the dates of those communications.

20 Q. Okay.

21 Let's turn to tab 13, please.

22 Is this a letter from a Phelps Dodge Tyrone
23 manager to Albert Dye dated June 26, 1981?

24 A. Yes, it is.

25 Q. And in the first paragraph of this letter,

1 does it reflect that a meeting was held between Phelps
2 Dodge and agency representatives concerning the Number 2
3 Leach system discharge plan?

4 A. Yes.

5 Q. And go ahead and read the part of that
6 paragraph after the -- after the comma where it starts
7 "the question."

8 Do you see where I'm looking?

9 A. After the comma.

10 Q. "The question was raised by you on which
11 groundwater" --

12 A. Oh, okay.

13 Q. -- "geographically, the proposed plan intends
14 to protect."

15 Do you see where I'm reading?

16 A. Yes.

17 Q. Okay.

18 A. Well, wait a minute. Okay.

19 Q. First paragraph.

20 A. So starting with "In order." Okay. I thought
21 you meant there was a question somehow in there.

22 "In order to clarify this matter, we believe
23 that the discharge plan should protect the groundwater
24 of subsequent users, and that those users are our
25 neighbors using groundwater in the predicted path of

1 contaminant flow from the Number 2 leach system. Since
2 this path of contaminant flow is to the Mangas Valley
3 and since an existing discharge plan covers sources
4 presently discharging to the Mangas Valley flow system,
5 the subsequent users being protected by this plan will
6 also be protected from a discharge from the Number 2
7 leach system. The subsequent users, therefore, are our
8 neighbors to the north in the Mangas Valley.

9 "As the" --

10 Q. So -- if I could stop you there.

11 So looking at Exhibit 13, what's your
12 understanding of what Tyrone is telling the agency is
13 the -- are the subsequent users in the Mangas Valley and
14 the predicted flow of contaminants from the area of the
15 166 discharge site?

16 A. Well, the letter indicates that Phelps Dodge
17 considers subsequent users to be, I guess, users to the
18 north in the Mangas Valley, and at that time,
19 groundwater flow from DP-166 was to the north towards
20 the Mangas Valley.

21 Q. Okay.

22 And could you read the next paragraph of the
23 June 26 letter from the Tyrone manager to Mr. Dye?

24 A. "As the Tyrone Mine is deepened, we wouldn't
25 expect seepage from the leach system to reach the Mangas

1 flow system because of the effect that dewatering the
2 mine will have on intercepting seepage and changing the
3 groundwater gradient to achieve groundwater flow only
4 into the mine."

5 Q. Now, does that paragraph -- do you understand
6 that paragraph to be referring to the open pit capture
7 zone concept that -- essentially that seepage at a
8 certain point -- once the mine is deepened, seepage is
9 going to flow toward the mine rather than down the
10 Mangas Valley?

11 A. Well, certainly Tyrone expected that as they
12 deepened the Main Pit, that groundwater would be -- in
13 the area of the Number 2 Leach Stockpile would begin to
14 flow towards the Main Pit.

15 There was -- perhaps not all of the flow. I
16 mean, that would be a function really of how -- how deep
17 the pit was and -- but -- so I wouldn't say all of it,
18 but at the time it was expected that groundwater would
19 start moving towards the pit.

20 Q. And could you read the next paragraph, please?

21 A. "Our intent relative to the contingency and
22 monitoring sections in the proposed plan was that the
23 monitoring system would only trigger additional
24 monitoring at wells located in the flow system downgrade
25 from the mine. This monitoring will show how the mine

1 dewatering system is operating to prevent contaminant
2 flow past the mine.

3 "Action to protect subsequent users from harm
4 would be made on the same basis of the analyses of
5 samples obtained from wells 14 and 15 in the Mangas
6 Valley. These two wells also trigger the contingency
7 plan contained in the Mangas Valley Discharge Plan. As
8 stated in the plan, we intend to notify the EID of all
9 actions regarding the contingency plan."

10 And this is not a proposal that ended up in --
11 being approved.

12 Q. Is it your understanding, though, that the
13 agency agreed with the concept of a monitoring system
14 that triggers additional monitoring at other locations,
15 and that would also eventually trigger a contingency
16 plan?

17 A. The Department didn't agree with the proposal
18 in this letter, but in terms of does the Department
19 agree with monitoring that could trigger other
20 monitoring, I certainly think that monitoring and the
21 results of monitoring often triggers other monitoring.

22 Q. And often triggers contingency plan work,
23 correct?

24 A. Yes.

25 Q. Contingency plan work that is identified up

Pages 2606 – 2609
(intentionally omitted)

1 not appeal the requirement. They agreed to it. So
2 whether or not that would be conceding -- or Phelps
3 Dodge felt that it conceded, I don't -- I don't know.
4 I'm only looking at the record and what did, in fact,
5 happen at the site.

6 Q. In your review of the record, did you find any
7 document in connection with any operational discharge
8 plan that stated the Department's position that water
9 immediately between -- or in -- excuse me -- beneath a
10 portion of the Tyrone Mine facility was water at a place
11 of withdrawal of water for present or reasonably
12 foreseeable future use?

13 That was not very artfully asked, but -- let
14 me try again.

15 Did you find any document where the agency in
16 writing took the position that the mine site itself was
17 a place of withdrawal of water for present or reasonably
18 foreseeable future use?

19 A. In those words in one document, discussing the
20 entire mine site, no. I believe that the -- the record
21 as a whole -- you know, the body of the record as a
22 whole in general is indicative of that the Tyrone Mine
23 was considered a place of withdrawal.

24 Q. Did you, in your review of the Tyrone
25 operational discharge plan files at any time, see a

1 document that took issue with statements -- the multiple
2 statements we've seen in these documents about
3 subsequent users and the fact that the subsequent users
4 were neighbors to the north, down the Mangas Valley?

5 A. I don't recall any documents arguing about the
6 term "subsequent users," but the record -- in almost
7 every permit that I can recall, certainly the majority,
8 Phelps Dodge's initial -- the monitoring plan that would
9 first, you know, be put forth and contingency efforts
10 that would be a result if there was contamination
11 were -- were much farther away from the sources of
12 contamination than what the Department believed was
13 appropriate.

14 And so there was a lot of correspondence and
15 back and forth, and which for some permits, I mean,
16 months or years of discussing wanting monitoring to be
17 brought closer to the source of potential contamination.

18 So that's not arguing necessarily about the
19 term "subsequent user," but it certainly shows that the
20 Department was very concerned with groundwater, you
21 know, at the source and immediately adjacent to the
22 source of contamination.

23 Q. Fair enough.

24 And these documents also reflect that Phelps
25 Dodge was very concerned about water at the source;

1 isn't that correct?

2 A. Which -- which documents?

3 Q. Well, for example, the documents at tab 15,
4 where it indicates that Tyrone intends to dewater the
5 mine and intercept seepage for as long as necessary to
6 return the quality at the wells between the Number 2
7 Leach Dump and the mine to preleaching conditions.

8 That reflects the company shared the concern
9 of the agency about contamination at the site, does it
10 not?

11 A. Well, this letter was written in response to
12 the Department requiring Phelps Dodge to abate the
13 groundwater contamination and come up with a plan for
14 abating the contamination at the leach stockpile.

15 Q. And it's your --

16 A. I --

17 MS. FOX: Hey --

18 Q. (BY MR. BUTZIER) Were you finished?

19 A. I certainly wouldn't want to say that Phelps
20 Dodge wasn't concerned. I'm just saying that this
21 letter is in response to the Department requiring that
22 they clean up the contamination.

23 Q. And the reason the Department was requiring
24 the cleanup of contamination, in your opinion, is
25 because the Department viewed all groundwater at the

1 site was a place of withdrawal of water for present or
2 reasonably foreseeable future use?

3 A. Yes.

4 Q. Okay.

5 Did you, in your review before preparing your
6 testimony in this case -- did you review the discharge
7 plan file for Discharge Plan 286?

8 A. Yes. I didn't -- I reviewed the majority of
9 the file, most of the file.

10 Q. And could you identify on NMED Exhibit 13 the
11 area covered by 286?

12 A. Again, that's the Number 3 Leach Stockpile
13 system, located at the northern portion of the main mine
14 complex.

15 Q. And actually, your Exhibit 13 identifies that
16 as the 3A system, correct?

17 A. That's correct.

18 Q. Could you explain why you're now referring to
19 that as the Number 3 system?

20 A. It -- that leach stockpile used to be referred
21 to as the Number 3 Leach system, and over time, at
22 several of these leach stockpiles or waste rock piles,
23 Tyrone has changed, you know, the terminology here and
24 there. And so that's -- but the discharge permit, I
25 believe, still refers to it as the Number 3 Leach

Pages 2614 – 2622
(intentionally omitted)

1 MR. GLASS: All right. We'll allow the
2 objection to stand and ask Mr. Butzier to refrain from
3 questions asking Ms. Menetrey to read Mr. Souder's mind
4 some 20, 30 years ago and maybe stick to the plain
5 meaning -- the plain meaning of the language and her
6 interpretation therein.

7 MR. BUTZIER: Okay. Thank you.

8 Q. Does this letter of July 26, 1983, state that
9 monitoring wells which would trigger implementation of a
10 contingency plan will need to be located fairly close to
11 the leach dump in order to identify contamination at an
12 early enough time that corrective action is feasible?

13 A. Yes, it does state that.

14 Q. And that's a letter from the agency in 1983,
15 correct?

16 A. That's correct.

17 Q. I'd like you to turn to tab 18, please.

18 Is this an October 3, 1983, letter from Karl
19 Souder and Albert Dye to Richard Rhoades at Tyrone?

20 A. Yes, it is.

21 Q. And is this part of the back and forth that
22 you talked about lasting for over a year in relation to
23 the discharge plan for the Number 3 Stockpile?

24 A. Yes, it appears to be.

25 Q. And could you read the highlighted parts of

Pages 2624 – 2651
(intentionally omitted)

1 groundwater discharge plan program, and it's a simple
2 question.

3 I'm asking if there's a single document she's
4 reviewed -- she's testified as to a 30-year history.
5 She's only been at the agency for something considerably
6 less than that 30 years, and yet she's offering opinions
7 here about a 30-year history. And my question is
8 directed to the part of that history in which she must
9 have formed her opinion based on review of documents
10 since she wasn't there.

11 MR. GLASS: Hmm. Well, given the fact that I
12 think we're observing an evolution of perception over a
13 period of some time in the Department, I'm going to
14 overrule the objection and ask you to answer the
15 question.

16 MS. MENETREY: Could you repeat the question,
17 please?

18 MR. BUTZIER: Could you read it back?

19 Sorry.

20 (Record read.)

21 MS. MENETREY: Well, again, I think -- I mean,
22 I believe that there's a lot of documents that indicate
23 that the place of withdrawal is inside -- and again, in
24 the first 10 years of permitting history, there was no
25 MMD permit boundary, and so it's -- there wouldn't have

1 been any correspondence relating to that.

2 But again, clearly the requirement under
3 DP-166 to clean up and abate groundwater within and, you
4 know, beneath the mine and within the area of the leach
5 dump is, to me, a clear document and indication that
6 that area was considered a place of withdrawal. There
7 is other correspondence, as well.

8 And again, the situation at the Tyrone Mine
9 was that in those early years there wasn't very much
10 groundwater contamination at the site. The brunt of --
11 I mean, after the number -- DP-166 contamination
12 occurred -- and again, that was in -- around 1985, but
13 after that -- and our action was to require that
14 groundwater get cleaned up.

15 But really there wasn't any other groundwater
16 contamination detected until you get into the '90s, the
17 early '90s, when groundwater contamination was detected
18 at the tailing impoundments. And so, you know -- and
19 then the mid '90s was when we started detecting the
20 contamination over on the east side of the mine, which
21 was very extensive -- or actually it would have been the
22 early '90s also for the Number 3 Stockpile.

23 So, you know, when you start talking about the
24 first 10 years of the record, there wasn't a lot of
25 activity with regard to contamination in the record, but

1 certainly when it did occur, the Department's actions
2 were to require that that contamination be cleaned up.

3 And I know that there is also some
4 correspondence in some of the back and forth, especially
5 with regard to monitoring. I recall a 1985 letter
6 regarding the Number 2A Leach Stockpile, where -- I
7 believe it was Ron Conrad, who was very specific --
8 there was a plan proposed by Tyrone to have monitoring,
9 you know, well away from the dump area, and in that
10 letter it was very specific that standards had to be
11 met.

12 If there's monitoring wells adjacent to the
13 dump and they could contaminate, you have to meet
14 standards here.

15 So I think that there's quite a bit of
16 documentation. It didn't apply to the MMD permit
17 boundary, but -- that's my answer.

18 Q. (BY MR. BUTZIER) And it also didn't apply to
19 the specific issue of place of withdrawal of water for
20 present or reasonably foreseeable future use, did it?

21 You've identified one -- one document in your
22 answer with any kind of specificity, and that document
23 does not specifically address the issue of place of
24 withdrawal of water for present or reasonably
25 foreseeable future use, does it?

Pages 2655 – 2727
(intentionally omitted)

