

CERTIFIED COURT REPORTERS/LEGAL VIDEO SPECIALISTS

1 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 IN AND FOR THE COUNTY OF RIVERSIDE
3
4 DIAMOND FARMING COMPANY, a California)
5 corporation, and WM. BOLTHOUSE FARMS,)
6 INC., a Michigan corporation,)
7 Plaintiffs,)
8 vs.)No. RIC 353840
9 CITY OF LANCASTER, ANTELOPE VALLEY)
10 WATER COMPANY, PALMDALE WATER)
11 DISTRICT, PALM RANCH IRRIGATION)
12 DISTRICT, QUARTZ HILL WATER DISTRICT,)
13 ROSAMOND COMMUNITY SERVICE DISTRICT,)
14 MOJAVE PUBLIC UTILITY DISTRICT, DOES)
15 1 THROUGH 200, INCLUSIVE, AND ALL)
16 PERSONS UNKNOWN, CLAIMING ANY LEGAL)
17 OR EQUITABLE RIGHT, TITLE, ESTATE,)
18 LIEN, OR INTEREST IN THE PROPERTY)
19 DESCRIBED IN THE COMPLAINT ADVERSE TO)
20 PLAINTIFF'S TITLE, OR, ANY CLOUD UPON)
21 PLAINTIFF'S TITLE THERETO,)
22 Defendants.)
23 AND OTHER RELATED ACTIONS.)
24
25

18 DEPOSITION OF N. THOMAS SHEAHAN, taken on
19 behalf of the Defendant Palmdale Water District, at
20 301 South Lake Avenue, 10th Floor, Pasadena,
21 California, commencing at 10:13 a.m., on Thursday,
22 July 18, 2002, pursuant to Notice, before JONNELL
23 AGNEW, CSR No. 5437, Registered Professional
24 Reporter, No. 000453, a Notary Public in and for the
25 County of Los Angeles, State of California.

CERTIFIED COURT REPORTERS/LEGAL VIDEO SPECIALISTS

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20 QUESTIONS INSTRUCTED NOT TO ANSWER

21 PAGE LINE

22 157 14

23

ANSWERS REQUESTED TO BE MARKED

24 PAGE LINE

25 165 25

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1 PASADENA, CALIFORNIA; THURSDAY, JULY 18, 2002

2 10:13 A.M.

3

4 N. THOMAS SHEAHAN,

5 called as a witness by and on behalf of

6 the Defendant Palmdale Water District,

7 being first duly sworn, was examined and

8 testified as follows:

9

10 EXAMINATION

11 BY MR. BUNN:

12 Q. We are starting this deposition a bit late
13 because the witness was caught in traffic and did not
14 arrive until ten minutes after 10:00.

15 Mr. Sheahan, back in March we got a resume'
16 for you, and I would like to show it to you. And
17 tell me if you recognize it.

18 A. Yes.

19 Q. Who prepared it?

20 A. What do you mean by "prepared?" Do you mean
21 who typed it or who created the words that went into
22 it?

23 Q. Who created the words?

24 A. I did.

25 Q. I can already tell, you are going to be very

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1 careful about your responses.

2 A. I'm sure your questions will be very
3 carefully phrased also.

4 Q. Did you prepare it for this lawsuit or for a
5 more general purpose?

6 A. For a general purpose.

7 Q. Is it accurate?

8 A. At the time, I believe it to be accurate.

9 Q. And at the time, was it complete?

10 A. What do you mean by "complete"?

11 Q. Let me phrase the question a different way.
12 If you had to develop a resume' specifically
13 for your work in this lawsuit, would there be
14 anything that you would add to what is there?

15 In other words, experience or education or
16 anything like that bearing more specifically on the
17 issues in this lawsuit.

18 A. Given that charge and given some time to do
19 it, I perhaps could identify some pertinent projects
20 over my 40-year career that I might have written a
21 description of and included. But nothing comes to
22 mind right now.

23 Q. Very good.

24 Since that resume' was prepared, have you
25 had additional experience that is, shall we say,

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1 resume'-worthy?

2 A. Yes.

3 Q. Okay. What would that be?

4 A. Well, I think every day I have experiences
5 that are resume'-worthy. I'm not sure I can be more
6 specific than that.

7 I'm continuing to work on new projects all
8 the time and I'm continuing to develop new ideas with
9 regard to those projects. Any one of those projects
10 might be resume'-worthy, depending on the particular
11 project or depending on the particular need for the
12 resume'.

13 Q. For a general resume' such as this one --

14 Let me ask you this: Have you prepared any
15 resume' since this one?

16 A. Yes.

17 Q. What additional material did they have on
18 it?

19 A. I'm not going to be able to answer
20 specifically. Since this resume' I prepared several
21 different resumes'. For example, I have prepared
22 what I call my long resume' which includes, I
23 believe, all of the items in here, although I may
24 have in my benevolence decided to drop one or another
25 project description.

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1 I've added some project descriptions from
2 that portion of my career prior to this that I felt
3 were important to bring out in a longer resume'.
4 I've also created some more focused resumes' for
5 particular projects or particular proposals or
6 statements of qualification.

7 So my office has those as part of their
8 general group of resumes'.

9 Q. You don't call this one your "short
10 resume'," do you?

11 A. No. This is -- if I were to characterize
12 it, I would call this my "old resume'," because I
13 don't use this resume' anymore. I've modified it and
14 revised it.

15 MR. BUNN: Could we get a copy of the
16 witness's current resume'?

17 MR. ZIMMER: I don't think that will be a
18 problem.

19 THE WITNESS: Not a problem. If you could
20 make a note for me and remind me of that.

21 MR. JOYCE: Do you want his long resume'?

22 MR. BUNN: Yes.

23 (Defendants' Exhibit A was marked
24 for identification by the court
25 reporter and is bound separately.)

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1 BY MR. BUNN:

2 Q. I'm not going to go over everything in your
3 resume', but I am going to focus on a few specific
4 areas that, to my mind at least, relate to what we
5 are doing here.

6 You are an attorney; is that correct?

7 A. I'm a inactive member of the California Bar.
8 I don't practice as an attorney, so I don't generally
9 refer to myself as an attorney.

10 Q. Have you ever practiced law?

11 A. With the exception of doing a will for a
12 friend and helping occasional other friends with a
13 contract, no, I've never practiced law as a
14 profession.

15 Q. Were you ever an active member of the state
16 bar?

17 A. Yes, for 20 years.

18 Q. So you went inactive relatively recently?

19 A. Yes. About a year ago.

20 Q. May I have the resume' back.

21 Have you served as a consultant to an
22 attorney in a lawsuit in the past?

23 A. Yes.

24 Q. When was the first time, do you recall, that
25 you did that?

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1 A. I don't recall the exact date, but it was
2 about 1974. It was the first time I had occasion to
3 work with an attorney in a lawsuit as a consultant.

4 Q. Who were you working for at that time?

5 A. I can't tell you the name of the firm. The
6 client, the ultimate client that we both served, was
7 the Santa Clara Valley Water District.

8 Q. And my question was intended to be "who were
9 you employed by at that time."

10 A. I was employed by the Santa Clara Valley
11 Water District.

12 Q. Were you working for an engineering firm,
13 though?

14 A. Yes. You mean who was I personally employed
15 by?

16 Q. I'm sorry.

17 A. I understand.

18 I was chief geologist for Brown & Caldwell
19 Engineering in Pasadena. And in that role, I had --
20 or we had as a client Santa Clara Valley Water
21 District. And so I was serving as a consultant
22 through Brown & Caldwell to the Santa Clara Water
23 District.

24 They had attorneys, outside counsel, that
25 they brought in for a matter, and so I served as a

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1 consultant to their attorneys in the matter.

2 Q. What was the nature of your work?

3 A. Of my work on --

4 Q. In that case.

5 A. Perhaps I need to understand more what you
6 are asking. I did project work for the district, and
7 as a result of that project work, there was a legal
8 matter that I consulted with the attorneys on.

9 So are you asking me about the project work
10 that I did or the consulting to the attorneys?

11 Q. No. What were the issues in the case?

12 A. The case had to do with an eminent domain
13 proceeding by the district against some property
14 owners up in the Palo Alto area.

15 Q. Since that time, you've acted as a
16 consultant more times than that?

17 A. Yes.

18 Q. Approximately how many times in the last 25
19 years?

20 A. As a consultant, a couple dozen; something
21 on that order.

22 Q. Okay. And you are distinguishing that from
23 as an expert witness; is that correct?

24 A. That's my understanding of consultant versus
25 witness, yes.

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1 Q. How many times as an expert witness?

2 A. I've been designated as an expert witness on
3 the order of a dozen times, something -- I don't have
4 an exact number.

5 Q. Have you had your deposition taken before?

6 A. Yes.

7 Q. Approximately how many times?

8 A. On the order of a dozen or more times. In
9 some of the matters that I was involved in, I had my
10 deposition taken several times. So 12 to 18 times;
11 something on that order.

12 Q. Have you testified at trial?

13 A. Yes.

14 Q. Approximately how many times there?

15 A. Less than a dozen. On the order of six to
16 twelve times.

17 Q. I would like to get at least a general idea
18 of the types of cases that you have been involved
19 with as an expert or a consultant and what the legal
20 issues were in those cases and what you were hired to
21 do.

22 We can organize that any way you like. If
23 you want to do it chronologically or just start from
24 one and check some off, but I would like to go
25 through most of those dozen.

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1 A. Well, I neither have in written form or in
2 my memory each and every one of those matters.

3 Q. I understand.

4 A. And I am not going to be able to bring them
5 all to mind. If I may, I can characterize them in
6 general.

7 Q. Please.

8 A. I mentioned the earliest issue, 1974.

9 The next time that I was involved I don't
10 remember specifically, but it was sometime in the
11 '80s. And the one that comes to mind was in the late
12 '80s, and it had to do with the problem of
13 environmental contamination, contamination of soil
14 and groundwater at a site. And I interacted with the
15 attorneys there. I'm happy to give you all the
16 detail that I remember.

17 The one I'm thinking of, the client was
18 United Technologies. Their carrier division. The
19 attorneys I worked with there were Hanna & Morton in
20 Los Angeles. The case had to do with a lawsuit by
21 the carrier against a degreaser manufacturer, for
22 deficiencies in the degreaser that caused a spill
23 that contaminated the soil and groundwater.

24 My role in the project was to help
25 investigate the contamination and to design a

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1 remediation system which included groundwater pumping
2 and groundwater treatment.

3 My role in helping the attorneys was to
4 present the results of the spill from the degreaser
5 and the mechanics of the spill as an expert witness
6 at trial.

7 For the same site, I worked with another
8 firm called Kirkpatrick & Lockhart in Pittsburg.
9 That was a lawsuit by United Technologies against
10 their insurance carrier.

11 That was a series of lawsuits, and I can't
12 tell you the details. First-party insures
13 third-party insurance, different issues, and it was a
14 matter that went from the very late 1980s until just
15 earlier this year. They finally settled the final
16 issue on that.

17 As a result of that, I got involved in some
18 other sites that were other carrier facilities, one
19 in Collierville, Tennessee; similar kinds of issues:
20 Contamination due to industrial activities, and
21 again, my expertise in hydrogeology and groundwater
22 flow and transport and soil contamination. That was
23 the area that I was asked to deal with in that
24 matter.

25 And another site in Florida that was a

1 aircraft manufacturing facility. I'm sorry; I'm not
2 bringing up the name on that right now.

3 During the '90s I was involved in a number
4 of issues dealing with Superfund sites. Actually, I
5 guess I recall one now in the '80s that was up in the
6 Bay Area. The Intel facility in the Bay Area.
7 Middlefield Ellis Whisman site, if you are familiar
8 with that. Again it had to do with groundwater
9 contamination, soil contamination and environmental
10 issues.

11 Also in the '80s I worked on a project
12 involving a landfill; again, groundwater soil
13 contamination resulting from the landfill. I can't
14 recall the name of the firm. It was the -- I believe
15 it was the Crazy Horse landfill up near Salinas. I
16 don't recall the details on that. Let me think. I'm
17 kind of drawing a blank.

18 I'm currently working on a matter with the
19 firm of Hatch and Parent, but because I am currently
20 working on that, I hesitate to discuss any of the
21 details of that. I can give you the attorney's name,
22 and you are welcome to contact him if you would like.

23 Q. Can you tell us generally what the issue
24 involved is?

25 A. Again, I hesitate to discuss it because I

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1 don't know what the status in what -- what the
2 privileges the attorneys are wanting to pursue. I've
3 not yet been designated as an expert, so I'm a
4 consultant to the attorneys, and if they have a work
5 product privilege they are trying to protect, I
6 wouldn't want to violate it here.

7 Q. What's the name of the attorney?

8 A. Rob Saperstein, in Santa Barbara.

9 Q. Okay. Of the times that you have spent as
10 an expert witness or consultant, it appears that most
11 of them dealt with contamination issues; is that
12 correct?

13 MR. ZIMMER: That is vague as to the
14 characterization. It is just contamination issues
15 without the groundwater concepts.

16 Go ahead.

17 THE WITNESS: Various impacts to
18 hydrogeologic systems were part of that. Each
19 individual instance had its own specific conditions.
20 So if you would like to characterize it that way,
21 that will be fine. I don't mean to say that was any
22 kind of a limit, the work that I was doing.

23 BY MR. BUNN:

24 Q. I understand.

25 Did any of your work as an expert witness or

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1 consultant not involve contamination issues, ever?

2 A. Yes.

3 Q. That first one, I imagine; the eminent
4 domain?

5 A. Certainly that one.

6 Q. Were there others?

7 A. Yes. Again, the one that I'm hesitant to
8 discuss in any kind of detail does not involve
9 contamination issues.

10 Q. Has any of your work as an expert witness or
11 consultant concerned or been involved with
12 groundwater basin adjudication?

13 MR. ZIMMER: Can you reread that question.

14 (The previous question was read back
15 by the court reporter as follows:

16 "QUESTION: Has any of your work
17 as an expert witness or consultant
18 concerned or been involved with
19 groundwater basin adjudication?")

20 THE WITNESS: The simple answer is "yes."
21 In many instances I need to deal with groundwater
22 basin adjudication issues, because sites that I deal
23 with are either within areas that have been
24 adjudicated or are adjacent to or deal with
25 adjudicated areas in some way.

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1 BY MR. BUNN:

2 Q. But you haven't been retained as a
3 consultant or expert witness in connection with a
4 groundwater adjudication proceeding?

5 MR. ZIMMER: Vague as to "groundwater basin
6 adjudication proceeding."

7 THE WITNESS: If you could further explain
8 what you mean, I'd appreciate that.

9 BY MR. BUNN:

10 Q. Was a lawsuit for which you were retained
11 ever a basin adjudication?

12 MR. ZIMMER: Vague as to "basin
13 adjudication."

14 THE WITNESS: Well, in the context of
15 adjudication being the dealing by a court of
16 competent jurisdiction with groundwater issues, then
17 I have to say "yes."

18 In the broad sense, I think many if not all
19 of them dealt with it to some extent. If you are
20 referring to something more specific, I need to have
21 you explain what you mean.

22 BY MR. BUNN:

23 Q. I think I am referring specifically to water
24 rights and the determination of water rights. Does
25 that change your answer?

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1 MR. ZIMMER: Vague as to the term
2 "determination of water rights."

3 THE WITNESS: If I can interpret "water
4 rights" to mean again the broader sense of the rights
5 of individuals, various kinds of rights of
6 individuals that might touch on or deal with water,
7 then yes; more than one of them has dealt with water
8 rights.

9 For example, the eminent domain proceeding
10 had to do with property and whatever water rights
11 might have attached itself to that property.

12 BY MR. BUNN:

13 Q. Okay.

14 A. So I can't exclude water rights from that.

15 Q. What other ones dealt with water rights?

16 A. Well, I have -- let me think.

17 Excluding the one that I would prefer not to
18 discuss, the matters that I've served as a consultant
19 to lawyers on that dealt with Superfund sites, some
20 of the Superfund sites were within groundwater basins
21 that were adjudicated.

22 And so those aspects were of importance to
23 some extent or other in dealing with -- for example,
24 I've dealt with -- I didn't mention this earlier, but
25 I served as a consultant to attorneys on sites that

1 are within the San Gabriel Valley. The San Gabriel
2 Basin has a Watermaster. Whether you consider that
3 to be adjudicated or not, I would have to say in my
4 definition of adjudication, courts have looked at
5 that.

6 So there has been some sort of adjudication
7 in the broader sense in that area.

8 So anytime we deal with groundwater
9 conditions in the main San Gabriel Valley, then you
10 have to deal to some extent with water rights.

11 Q. Let me try and clarify a little bit using
12 that example. I would call the main San Gabriel
13 basin adjudicated. But if I understand correctly
14 what you were doing in that basin, it was not part of
15 the adjudication which happened in the 1960s or early
16 '70s.

17 A. That's correct. I was not involved in the
18 adjudication proceedings that occurred at that time;
19 that's right.

20 Q. That is kind of what I was trying to get at.

21 Are there any cases in which you were
22 involved in the adjudication proceedings?

23 MR. ZIMMER: That is vague.

24 BY MR. BUNN:

25 Q. As you define them?

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1 A. Again, you are specifically asking me for
2 those instances where I have consulted to an
3 attorney?

4 Q. Yes, sir.

5 A. I think the answer is "no." I believe the
6 answer is "no" if I understand your question right.

7 Q. Okay. Let's broaden out the question, then,
8 and ask about areas where you worked in the
9 groundwater basin adjudication, not consulting with
10 an attorney.

11 Can you tell us what you've done in that
12 regard?

13 MR. ZIMMER: Vague as to "groundwater basin
14 adjudication."

15 THE WITNESS: Well, what causes me concern
16 in your question -- for example, the Mojave
17 groundwater basin, the Mojave groundwater basin area
18 adjudication has been adjudicated by -- I believe it
19 is an ongoing process.

20 I'm doing some work in the Mojave
21 groundwater basin for attorneys. And part of my work
22 has to do with reviewing the judgment -- current
23 judgment in that case and providing technical
24 assistance to a client in that regard.

25 So to that extent, I'm dealing with the

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1 water rights issues in that area. But I am not
2 representing an attorney in that case.

3 BY MR. BUNN:

4 Q. Okay. Any others besides that?

5 A. Let me think. Adjudication.

6 Nothing that I can discuss today.

7 Q. You are speaking of the case for Hatch &
8 Parent, or are there others that you can't discuss?

9 A. I'm not referring to others.

10 Q. Who is your client in the Mojave basin?

11 A. Well, my firm, Geomatrix, is a consultant,
12 subconsultant to the firm of URS. So I'm serving as
13 a senior specialist; if you will, peer reviewer for
14 the work that URS is doing. And their client is the
15 Mojave Water Agency.

16 Q. When did you first get involved with that
17 project?

18 A. Sometime in February of this year, I
19 believe. February, March. In terms of being under
20 contract as a subconsultant.

21 Q. Well, did you have any involvement before
22 then?

23 A. Yes, but not -- let me explain.

24 Q. Please.

25 A. In January I left the firm of URS and joined

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1 Geomatrix. While I was with URS, I prepared and put
2 together a proposal for the project, interacted with
3 the Mojave Water Agency during interviews, scoping
4 out the work, costing it out, and assisted URS in
5 getting that project as a URS project.

6 I then left URS, and subsequently URS has
7 hired me back as a consultant to them. So I have
8 been involved in that since the first time that I
9 heard of the project, which was at least a year ago.

10 Q. What is the project?

11 A. It's a hydrogeologic evaluation of the
12 transition zone area, which is an upper portion of
13 the Mojave basin area.

14 Q. Had you had any professional involvement in
15 the Mojave basin area prior to about a year ago?

16 A. I think over the past 20 or 30 years I've
17 had a number of different involvements in the Mojave
18 basin area.

19 Q. Could you tell us generally what those
20 involvements were.

21 A. Let's see. In one instance I was working
22 for a spring-bottling firm who was collecting water,
23 and they were interested in looking at spring
24 facilities over in that area. So I evaluated some of
25 those areas with regard to the potential for spring

1 water development.

2 I worked for Burlington Northern Santa Fe on
3 some of their water supplies at some of their
4 stations, some of their locations along the railroad
5 that runs down through the Mojave basin area.

6 A few years ago I did a project for
7 Catellus, who was a large landowner who owns a number
8 of parcels of property that are within the Mojave
9 basin area, and I have looked at the ground water
10 resources potential for those sites.

11 I've -- let me think.

12 Nothing else comes to mind right now.

13 Q. Other than your current work for the Mojave
14 Water Agency, have you been involved in the basin
15 adjudication case there at all?

16 MR. ZIMMER: Vague as to "basin adjudication
17 case."

18 MR. BUNN: Well, Barstow versus Adelanto is
19 the name of the case.

20 THE WITNESS: I think not. I think I can
21 safely say I've not been involved in that case. I
22 mean, I have worked for City of Barstow, now that you
23 mention Barstow. I've done projects in that area.
24 But not with regard to the adjudication. Not with
25 regard to that case.

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1 BY MR. BUNN:

2 Q. Okay. Other than what you already testified
3 to, what other work have you done in the area
4 specifically of water rights?

5 MR. ZIMMER: Vague as to "water rights."

6 THE WITNESS: What do you mean by "work"?
7 Do you mean specifically consulting to attorneys or
8 something broader than that?

9 BY MR. BUNN:

10 Q. I want to be pretty broad to make sure that
11 I have got everything. Tell us what you have done in
12 connection with water rights that we haven't
13 mentioned yet.

14 A. Well, over the past --

15 MR. ZIMMER: That is vague. Are you talking
16 about in terms of work or education or in terms of
17 being retained as an expert?

18 MR. BUNN: Yes.

19 MR. ZIMMER: In terms of reading?

20 "Yes," what?

21 MR. BUNN: Yes, I am.

22 MR. JOYCE: As to all of those.

23 THE WITNESS: Well, off and on I've gotten
24 interested in water rights in terms of learning about
25 it. Certainly when I was in law school, that was an

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1 area that I thought about a lot. Prior to that time,
2 I was interested in water rights and have more or
3 less kept up with water rights activities in the
4 state.

5 I think my interest was peaked in 1977 or
6 '78 when I believe a lady named Ann Schneider put
7 together a very nice compendium of California water
8 rights law. Since that time, as things come up on
9 water rights issues that catch my attention and I
10 read about them.

11 The most recent one was the Sax report
12 concerning the banks issue. I tried to follow that
13 and think about those things.

14 For many years I have been interested in
15 water rights and I tend to follow -- to the extent
16 that it comes into play in a particular project, I
17 like to think that I'm at least astute enough to be
18 aware of the potential for those kind of issues.

19 I can't recall anything that I haven't
20 already discussed where that was a specific issue, of
21 a matter that I served either as a consultant or an
22 expert to an attorney on.

23 BY MR. BUNN:

24 Q. Have you ever taught or lectured about water
25 rights?

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1 A. Again taking your question in the broadest
2 sense, I taught for a while at Cal State Fullerton.
3 I taught a graduate course in hydrogeology, and as
4 part of that course you touched on water rights. It
5 was not specifically focused on water rights. To the
6 extent that first-year graduate students' attention
7 can be held long enough, I talked to them a little
8 bit about water rights.

9 Q. Anything else?

10 A. Nothing I can think of.

11 Q. Have you written any articles about water
12 rights?

13 MR. ZIMMER: Same objection as to "water
14 rights" being vague.

15 THE WITNESS: Again, not specifically. I've
16 written some articles, and I think I may have touched
17 on water rights in one or more of the articles, but
18 that wasn't the specific focus.

19 BY MR. BUNN:

20 Q. Okay. How about groundwater management?
21 Would you tell us what your experience has been in
22 that area.

23 MR. ZIMMER: Vague as to "groundwater
24 management."

25 THE WITNESS: Can you explain what you mean

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1 by "groundwater management."

2 BY MR. BUNN:

3 Q. Well, let's be more specific and talk about
4 managing a groundwater basin.

5 A. Can you tell me what you mean by a
6 "groundwater basin."

7 Q. No, I cannot. Whatever you would take that
8 to mean.

9 MR. ZIMMER: That's vague. Vague as to
10 "groundwater basin" and management.

11 THE WITNESS: Let me see if I can respond in
12 this way. I'm not sure that either of us know what
13 your question means.

14 Anytime that we deal with groundwater for a
15 client, I think we deal with some aspect of
16 groundwater management; that is, either managing the
17 supply in order to produce enough water for use or
18 managing the resource in order to develop groundwater
19 resources at appropriate locations, or managing
20 groundwater such that we neither preserve quality or
21 avoid or mitigate water-quality impacts, or managing
22 groundwater in order to maximize the development of
23 groundwater at various instances.

24 So I think all aspects of groundwater that I
25 deal with would come under the heading of

1 "groundwater management." It is different purposes
2 of groundwater management, and we break them out into
3 categories.

4 BY MR. BUNN:

5 Q. Have you ever prepared or been part of the
6 preparation of a groundwater basin management plan?

7 MR. ZIMMER: It's vague.

8 THE WITNESS: We have the same problem with
9 ambiguity of terms in your question. Again in
10 response I've prepared what at one time we referred
11 to as "conjunctive use studies," and prepared a
12 conjunctive use study to the Montecito County Water
13 District that looked at groundwater as well as
14 surface water management in that area.

15 I've done modeling studies, such as for the
16 city of Santa Barbara. I've looked at, in their
17 case, optimizing the recovery of groundwater and
18 avoiding poor-quality water and developing the
19 groundwater supplies.

20 So yes, those kinds of things I've done.

21 BY MR. BUNN:

22 Q. I think that is exactly what I was trying to
23 get at.

24 Are there any others besides those?

25 A. Yes. I did a project for the city of Santa

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1 Cruz a bunch of years ago where we looked at a
2 similar kind of surface water/groundwater management
3 scheme where we could perhaps capture some surface
4 water in the stream and recharge the groundwater
5 basin and use that in a groundwater storage sense.

6 More recently I've done some work for the
7 Metropolitan Water District in their aquastorage and
8 retrieval activities out in the desert area and some
9 of the desert basins.

10 Some of the work I described earlier for
11 Catellus had to do with that, how to best manage
12 groundwater resources in some of the areas out there.

13 Q. Other than this case, have you been involved
14 in the determination of groundwater basin boundaries?

15 MR. ZIMMER: Vague as to "determination of
16 groundwater boundaries -- basin boundaries." Also
17 assumes a fact not in evidence, that that is what we
18 are doing.

19 THE WITNESS: If you would like to define
20 what you mean by "groundwater basin boundary," I can
21 probably answer your question.

22 BY MR. BUNN:

23 Q. Have you ever asked -- been asked to locate
24 a groundwater basin boundary?

25 MR. ZIMMER: Vague.

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1 THE WITNESS: In response, let me say in
2 various instances for various types of studies for
3 various types of purposes, I have established study
4 areas, and in some instances we've referred to those
5 in kind of a generic sense, a lower case if you will,
6 as groundwater basin boundaries.

7 In those instances, it was not intended for
8 those lines to be characterized as some specific term
9 of art that "groundwater basin boundary" might be
10 used as in this case.

11 So what I'm trying to say is that in the
12 past I've used that term in some instances, but I
13 think a better phrase for that in those instances is
14 a study area designed for a particular purpose.

15 BY MR. BUNN:

16 Q. And about how many times would you have done
17 that?

18 MR. ZIMMER: Vague as to "that."

19 THE WITNESS: I don't know. More than once,
20 but I can't tell you how many.

21 BY MR. BUNN:

22 Q. What was the purpose of drawing that line
23 which you said might be -- you might have referred to
24 it as a "basin boundary" or "study area"?

25 MR. ZIMMER: Vague; assumes facts not in

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1 evidence, that in each one of those studies the
2 purpose would have been the same.

3 THE WITNESS: Are you referring to a
4 specific study or would you -- what would you like me
5 to do?

6 BY MR. BUNN:

7 Q. If you can think of specific studies, I
8 would appreciate hearing about them, yes.

9 A. I mentioned the Santa Barbara area. In that
10 instance, I was putting together a groundwater model,
11 model of the subsurface conditions, digital computer
12 model. For convenience in modeling that area and the
13 groundwater resource in that area, I identified a
14 boundary to the model.

15 Again, I might call that a "study area." I
16 might call it a "model boundary area" or I might call
17 it a "groundwater basin area" in the very general
18 sense.

19 So that would be a purpose in order to
20 establish a convenient boundary within which to do
21 some mathematical calculations.

22 In other areas, I've defined study areas
23 that might have been characterized as "groundwater
24 basin boundaries" in order to just generally show
25 what others have referred to as basin areas.

1 In some instances I've defined what might be
2 more specifically referred to as "watershed
3 boundaries" as "groundwater basin boundaries" under
4 the very broad sense of the meaning of "groundwater
5 basin boundary." That might have been more for the
6 purpose of looking at the total water supplies within
7 an area.

8 So in each instance, each project has a
9 specific purpose or group of purposes. So each one
10 would be different. Well, each one could be
11 different.

12 Q. Has your work of involved determination of
13 the boundary of an area in which water rights would
14 be determined?

15 A. Are you talking about other than this
16 current matter?

17 Q. Yes.

18 MR. ZIMMER: In those precise terms, in that
19 precise language?

20 MR. BUNN: No.

21 MR. ZIMMER: If you are talking generally,
22 then it is vague.

23 MR. BUNN: I'm not trying to stick with the
24 precise language in terms of, for example, the word
25 "area." It could be other things.

1 So it is not the language so much, but the
2 concept is the precise one of whether he was ever
3 trying to delineate the boundary of an area for
4 purposes of determining water rights within the area.

5 MR. ZIMMER: He told you that he has
6 determined areas for multiple different reasons in
7 the past. That is why I am asking you whether you
8 are talking about under that precise term or are you
9 talking about determining areas he has already talked
10 about. It is vague. I'm not sure.

11 MR. BUNN: For that precise reason, yes,
12 determining water rights.

13 MR. ZIMMER: I'm not sure I understand the
14 question. But if you understand it, you can go
15 ahead.

16 THE WITNESS: I'm not sure I recall the
17 question at this point. Could you restate it or have
18 it read back.

19 BY MR. BUNN:

20 Q. Whether you have ever been involved in
21 delineating an area within which water rights would
22 be determined.

23 MR. ZIMMER: That's vague.

24 THE WITNESS: I mentioned earlier the matter
25 that I was involved in in the '70s that had to do

1 with eminent domain proceedings. Considering the
2 fact that the water and production of water was part
3 and parcel of that, the area contained within that
4 study area, I believe, had to do with water rights.

5 So that would be an example of an area that
6 I delineated that dealt with water rights.

7 BY MR. BUNN:

8 Q. Okay. Where was that?

9 A. In Palo Alto.

10 Q. Was it groundwater that you were talking
11 about there, then?

12 A. Groundwater was a major element of the
13 project.

14 The project that I was doing dealt with
15 designing and building a seawater intrusion barrier.
16 As I mentioned earlier, the litigation matter that I
17 was involved in as a consultant to the attorneys had
18 to do with an eminent domain proceeding.

19 So the boundaries that we defined there had
20 to do with the eminent domain proceeding which I
21 would characterize as having to do with water rights.

22 Q. What was it that was condemned in that case?

23 A. I don't know that I can answer that
24 specifically. Other than the property.

25 Q. And that is what I am trying to get a

1 description of. What was the property?

2 A. I can't tell you exactly. It was an area
3 that they were interested in condemning, and so it
4 was defined by the attorneys and by the client, and
5 therefore by me, to establish as a study area within
6 which I did my work.

7 Q. Okay.

8 A. I don't know all -- I couldn't draw the
9 boundary on the map from memory.

10 Q. I'm not asking you to. I was just trying to
11 figure out what type of property was involved in the
12 condemnation.

13 A. It was property that laid between Highway
14 101 and the San Francisco Bay. It didn't necessarily
15 go all the way to the highway, although it may have
16 in some instance, and didn't necessarily go all the
17 way to the bay, although it may have in some
18 instances.

19 There was a longer rather than wider piece
20 of property. But I couldn't really be more specific
21 than that about where it is.

22 Q. Have you ever done any work for Mr. Zimmer's
23 law firm in the past?

24 A. No.

25 Q. Have you ever done any work for Mr. Joyce's

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1 law firm?

2 A. No.

3 Q. Have you ever done any work for either of
4 their respective clients?

5 A. No.

6 Q. You have served a number of times as an
7 expert witness, and no doubt you know more about it
8 than I do. But nevertheless, I would like to take
9 the opportunity to remind you of a couple of features
10 of this deposition.

11 The oath that you took at the beginning of
12 the day is the same oath that you would take in a
13 court.

14 Do you understand that?

15 A. Yes, I do.

16 Q. And even though we are taking your
17 deposition as an expert witness, your obligation to
18 tell the truth in the deposition is the same as that
19 for any other witness.

20 Do you understand that?

21 A. Absolutely.

22 Q. If your testimony at trial differs from what
23 you tell us here today, the attorneys are going to
24 have an opportunity to comment on that difference and
25 potentially use it to impeach your testimony.

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1 So with that in mind, it is important that
2 you give your best testimony today.

3 Do you understand that?

4 A. Yes.

5 Q. Is there any reason why you couldn't give
6 your best testimony today?

7 A. I think it is going to be only a function of
8 how well you've phrased the questions. I will do my
9 utmost to answer your questions to the best of my
10 ability if I understand them.

11 Q. Well, I'll take on that responsibility as
12 best I can.

13 If there is a question that I ask you that
14 you don't understand, however -- I'm not going to
15 intentionally trick you with my questions. But from
16 time to time I ask questions that aren't as clear as
17 they could be.

18 If you don't understand a question, will you
19 be sure and tell me that you don't?

20 A. Yes, I will.

21 Q. And if you do answer a question that I've
22 asked without telling me that, then I'm going to
23 assume that you've understood my question.

24 Is that fair?

25 MR. ZIMMER: That is not fair because he

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1 doesn't know what you are going to do. He may or may
2 not.

3 He is just telling you if you don't
4 understand the question, just tell him.

5 THE WITNESS: May I add to that that, as
6 already in the transcript, in some instances I will
7 tell you what I understand your question to mean and
8 I will give you an answer based on my understanding
9 of your question.

10 If my understanding is incorrect, I would
11 certainly hope that you would let me know that.

12 BY MR. BUNN:

13 Q. That works for me.

14 When were you first contacted about this
15 case?

16 A. Sometime in February of this year. I don't
17 recall the exact date, but sometime in February.

18 Q. By whom?

19 A. By Mr. Mark Smith of Mr. Zimmer's firm.

20 (Recess.)

21 BY MR. BUNN:

22 Q. When you were first contacted by Mr. Smith,
23 were you asked to do anything?

24 A. I think the answer is "yes." In our
25 discussion and in all such discussions, one of the

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1 first issues that I talked with an attorney about is
2 the potential for conflicts of interest.

3 The first thing that I was asked to do was
4 to check to see whether or not I had any conflicts of
5 interest or if my firm had any conflicts of interest
6 that might cause me to not be able to serve in the
7 capacity as a consultant.

8 So I was asked to do that.

9 Q. And did you come up with any areas of
10 concern?

11 A. No.

12 Q. Were you asked to do anything else?

13 A. I don't recall specifically. I believe I
14 was asked or we at least agreed that I would put
15 together some information concerning myself. I
16 believe my resume' and some other documents, billing
17 rates and so forth, and to send that information off
18 to his firm.

19 Q. Were you retained at that time?

20 A. I believe, as I would characterize it, I was
21 retained orally at a later time after I had confirmed
22 that there was no conflict of interest.

23 Q. In those initial discussions before you were
24 retained, what were you told about the case?

25 A. My recollection is that I was told the names

1 of the plaintiffs, Bolthouse Farms and Diamond
2 Farming, and the names of one or more of the
3 defendants; City of Lancaster, for example.

4 I was told that the matter had to do with
5 the general vicinity of the Antelope Valley, and the
6 general subject matter, broad subject matter, of
7 water rights.

8 Q. Do you recall when it was you were orally
9 retained?

10 A. Not specifically. But I recall that I
11 confirmed the oral retention in an e-mail back to
12 Mr. Smith.

13 Q. Okay. Between the first contact with
14 Mr. Smith and that time in which you were retained,
15 were there other conversations that you had with any
16 member of Mr. Zimmer's firm?

17 A. I don't believe so. I don't recall any. I
18 don't believe so.

19 Q. You have been retained only by Bolthouse and
20 not Diamond Farming; is that correct?

21 A. I believe I've been retained by Mr. Zimmer's
22 firm.

23 Q. Okay. But not Mr. Joyce's firm?

24 A. Not specifically, no. I looked to
25 Mr. Zimmer as my client.

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1 Q. Did you bring a copy of that confirming
2 e-mail?

3 A. Yes.

4 Q. May I see it, please.

5 A. This will take a moment.

6 (Interruption in proceedings.)

7 BY MR. BUNN:

8 Q. This e-mail is dated March 9, 2002. Is it
9 fair to say that that's when you consider yourself to
10 have been retained?

11 A. I didn't read the e-mails. I don't know if
12 it references the date of the telephone call.

13 Q. Do you want to review it?

14 A. If it does, I will say that it would be the
15 date of the telephone call that I was orally
16 authorized to proceed. But if I don't have that
17 specific date, then I would have to say it was
18 March 9th or before.

19 Q. You are billing for this engagement by the
20 hour; is that correct?

21 A. Yes.

22 Q. What is your hourly rate?

23 A. For what?

24 MR. ZIMMER: For what service?

25 MR. BUNN: Well, if it differs for different

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1 services, then he can tell me.

2 THE WITNESS: My hourly rate for consulting
3 work is \$250 an hour. My hourly rate for time spent
4 during depositions and in testifying in court is \$500
5 an hour.

6 BY MR. BUNN:

7 Q. And were those the rates in March?

8 A. Yes.

9 Q. I ask because Mr. Zimmer in his disclosure
10 said that your rate for testimony was \$250 an hour;
11 is that an error?

12 A. That is an error.

13 MR. ZIMMER: That is why I sent out the
14 subsequent letter, so you knew his rate was actually
15 \$500 an hour. I don't know why someone put 250 an
16 hour in there, but it should have been 500 an hour.

17 BY MR. BUNN:

18 Q. Is that a standard rate for expert witness
19 engagements?

20 A. Well, it's a standard rate for expert
21 witness engagements for Geomatrix for persons with a
22 billing rate of \$250 for consulting work.

23 Just so I can maybe explain further, we have
24 a standard schedule and standards of terms and
25 conditions, and those are the -- that standard

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1 schedule and those terms and conditions which I've
2 referenced in this confirming authorization.

3 And in that document, it indicates that the
4 time spent in depositions and trial testimony is
5 billed at twice the normal rate for consulting. That
6 would apply to anybody no matter what their normal
7 billing rate is; it would be twice their normal
8 billing rate.

9 Q. I understand.

10 Since March 9th, how many hours have you
11 spent on this case?

12 A. I don't know. As I sit here, I don't -- I
13 could look it up. I brought the records that you
14 asked me to bring, and it is within those records.
15 But I don't know it as I sit here.

16 Q. Do you have an estimate?

17 A. Not really. I'd hesitate to guess at it
18 when I have the documents behind me that show the
19 number.

20 Q. Very well. I don't want to waste time, but
21 let's go ahead and look at the documents and find
22 out.

23 I'm also going to be asking you what you've
24 spent your time doing. So if you could pull out the
25 record dealing with that so you can answer that

1 question.

2 A. What records are you referring to?

3 MR. ZIMMER: Billing records.

4 BY MR. BUNN:

5 Q. Whatever records you need to tell me what
6 you have been doing for the --

7 MR. JOYCE: However many hours. He wants
8 total commitment of your time to your effort today,
9 and he wants to know, to the extent you can break it
10 out, what that time was expended doing.

11 THE WITNESS: Let me address the latter
12 first.

13 I have been spending my name focused on
14 developing the information presented in the report,
15 my report dated July 16. So all of the aspects of
16 work that have been necessary to develop that report,
17 the information presented in there, that's what I
18 have been spending my time on.

19 And that, plus supervision of other
20 employees that I have had working doing the same
21 thing. I'm not going to be able to sit down -- I
22 don't have records that show what each minute of
23 every day was spent doing.

24 BY MR. BUNN:

25 Q. What I would like to get an idea of is how

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1 much time you spent in discussion with the attorneys
2 on the case, how much time you spent reviewing
3 Mr. Scalmanini's report, how much time you spent
4 doing background research, and that kind of thing if
5 we can break it out. I'm not looking for exact
6 minutes.

7 A. Well, the best I can do is to generally
8 characterize that. I've spent several hours
9 reviewing Mr. Scalmanini's report. I've spent again
10 several hours in discussions with the attorneys.

11 Most of my time, though, has been spent in
12 reviewing documents and thinking about how to address
13 the issues that I was asked to address and in
14 actually addressing them. And a considerable amount
15 of time has been spent in writing, preparing the
16 written document and in preparing the map that goes
17 with it.

18 I would estimate, to give you percentages,
19 because I don't know those. By and large, the
20 greatest amount of time has been in reviewing
21 documents and in preparing a report.

22 Q. Okay. Could you look and tell us what the
23 total is now, and we will see how much we are talking
24 about.

25 A. This will take me a moment because I -- the

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1 records that I have are up through the end of last
2 week, and our week ends Thursday of a week. So if
3 you give me a moment, I'll see if I can do this.

4 I understand your question to be my personal
5 time, not the time by other people working under my
6 direction; is that correct?

7 Q. That is the first question, but I'm going to
8 ask the others, so you may as well calculate them
9 both.

10 A. Okay. Well, would you like me to calculate
11 them both now and respond to both questions at the
12 same time?

13 MR. ZIMMER: Whatever is faster.

14 BY MR. BUNN:

15 Q. Yes. I think Mr. Zimmer is right. Whatever
16 is most efficient for you.

17 A. May I have another piece of paper.

18 MR. ZIMMER: Can you look at those and give
19 an estimate?

20 MR. BRUYNEEL: I can't hear the question.

21 MR. ZIMMER: I asked if he can look at those
22 and give an estimate instead of doing mathematics.

23 THE WITNESS: Not easily.

24 MR. ZIMMER: Okay.

25 (Witness is calculating numbers

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1 from 11:38 a.m. to 11:44 a.m.)

2 THE WITNESS: I have it now.

3 BY MR. BUNN:

4 Q. Have you been able to calculate the hours?

5 A. Yes.

6 Q. What did you come up with?

7 A. Again, this is through Thursday, which I
8 believe was July 3rd. I have to look at my calendar.
9 I've spent 115 hours.

10 I've had a staff person named Scott Edwards
11 who spent 55 hours. I have had a staff person named
12 Greg Hamer spend 17 hours, a staff person named Jen
13 Strona, S-t-r-o-n-a, spent 36 hours, and a project
14 assistant named Linda Wirth who has spent 29 and a
15 quarter hours.

16 Q. Well, your earlier answer that you spent
17 several hours doing each of several tasks takes on a
18 whole new meaning with a total of 115. Can you break
19 down approximately how many hours, for example, you
20 spent discussing matters with the attorneys?

21 A. I'll give you an estimate. The best I can
22 do is to just give you an estimate. I cannot break
23 it down as such.

24 Would that be acceptable?

25 Q. Is that because your time records are not

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1 broken down that way?

2 A. That's correct.

3 Q. Are your time records broken down at all
4 besides by the person?

5 A. No.

6 Q. Okay.

7 A. Well, by date. They are broken down by day
8 of the week and by week and by person.

9 Q. All right. Then I guess your estimate is
10 the best we can do.

11 A. If I were to lump together face-to-face
12 meetings with Mr. Zimmer and others, meetings with
13 the attorneys and telephone conversations, I would
14 say that I have probably spent on the order of 20
15 hours in those discussions. That is roughly
16 20 percent, if you will, of the 115 hours.

17 Supervising other employees and interacting
18 with them, probably another 10 or 20 hours;
19 approximately 15 hours, perhaps.

20 MR. ZIMMER: I think he only asked you as to
21 the lawyers. That was his question.

22 THE WITNESS: I'm sorry.

23 BY MR. BUNN:

24 Q. What else?

25 MR. ZIMMER: What else what?

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1 THE WITNESS: Yeah, I'm not sure I
2 understand.

3 BY MR. BUNN:

4 Q. Besides those two categories, what other
5 types of things have you spent your time on?

6 A. Well, I indicated in an earlier answer the
7 types of things. One was preparing the report.
8 Approximately 60 percent of my hours have been in the
9 process of preparing that report. Again, perhaps
10 another 5 percent spent in meetings with --
11 discussions with Professor Gorelick.

12 Q. We've spent enough time on that. Keep that
13 e-mail, if you would, please, because that talks
14 about confirming a telephone conversation with
15 Mr. Zimmer himself.

16 Is it from Mr. Zimmer that you got your
17 initial assignment in this matter?

18 MR. ZIMMER: That is vague as to "initial
19 assignment."

20 THE WITNESS: I think you asked me about the
21 initial assignment, and I described what that was
22 from Mr. Smith. That was to look into conflicts of
23 interest.

24 BY MR. BUNN:

25 Q. Okay.

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1 A. Is that the one you are referring to now by
2 the "initial assignment"?

3 Q. No. When you were retained -- well, were
4 you retained as a consultant or an expert witness?

5 A. I would have to say I was retained as a
6 consultant, and at a later point I believe I was
7 designated an expert. That is my understanding.

8 Q. When you were retained as a consultant, what
9 was your assignment?

10 A. I think this document describes what my
11 assignment was as I understood it at that time. I
12 would be happy to read this to you.

13 Secondly, I've tried to be very clear in my
14 report in describing what the scope of work was that
15 I understood, as my work continued, to be my
16 assignment.

17 Q. Yes, you did a good job in your report.
18 What I want to get at perhaps is how each assignment
19 changed over time.

20 MR. ZIMMER: Vague as to "assignment." If
21 you are asking him what he was first told or what was
22 said or something like that, that may be a different
23 thing than what you are interpreting as an
24 assignment.

25 THE WITNESS: I don't believe I said

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1 anything about the assignment changing over time.

2 BY MR. BUNN:

3 Q. Okay. Is it your view that what you were
4 asked to do didn't change over time?

5 A. What I was asked to do was to serve as a
6 consultant. And as a consultant, various issues come
7 up at various times. So it is a dynamic assignment.
8 It is to consult concerning the issues that come up
9 over the period of time that I'm serving as a
10 consultant.

11 Q. Okay. Initially when you were first
12 retained, what issues were you dealing with?

13 A. The best I can do is to read what I've
14 written in this confirming authorization. I believe
15 that it speaks for itself. Tells you what at that
16 time my understanding was of what I was asked to look
17 at.

18 Q. May I see that again, please.

19 A. Sure.

20 Q. Sir, I don't need you to read this. It
21 refers to a number of specific tasks, but I don't see
22 here where it identifies any issues that you are to
23 deal with.

24 MR. ZIMMER: Is that a question?

25 THE WITNESS: Maybe I need to have you

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1 explain your question. I thought that this
2 specifically answered your question.

3 BY MR. BUNN:

4 Q. It certainly says who you are going to talk
5 to, but if it says about what, I'm missing it, and
6 that is my question.

7 A. Let me take a moment and refresh my
8 recollection of whatever it says.

9 Q. Of course.

10 A. (Witness reviews document.)

11 MR. JOYCE: Let me see that.

12 BY MR. BUNN:

13 Q. Have you refreshed your recollection about
14 the subject matter of what you were asked to do?

15 A. Yes, I have.

16 Q. What were you asked to do?

17 MR. ZIMMER: Vague as to time. At that
18 time?

19 MR. BUNN: Yes.

20 THE WITNESS: In a moment. I would like to
21 have the document in front of me.

22 I was asked -- to paraphrase, I was asked to
23 discuss details of the matter that I am referring to
24 as a Willie Bolthouse Farms versus City of Lancaster
25 with Professor Gorelick.

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1 I was asked to review the Luhdorff and
2 Scalmanini technical memorandum, and I was asked to
3 meet with Mr. Zimmer, Mr. Johnson to discuss the
4 matter.

5 And I was asked to attend a deposition of
6 Mr. Scalmanini to assist, and I was asked to be
7 available for and to prepare for a deposition.

8 The details of each of those are not
9 expressed here. The details of those are what I
10 described as the dynamic aspect. The more I
11 discussed the issues with, for example, Mr. Zimmer,
12 the more I understood what the matter had to do with.

13 So it was a growing period of my
14 understanding of what the issues were.

15 BY MR. BUNN:

16 Q. Let me see if I can get at it this way.

17 Were you aware at that time, March 9th,
18 2002, that the issues in the lawsuit had been divided
19 into two phases?

20 A. I don't recall. This document doesn't
21 refresh my recollection on that. I just don't
22 recall.

23 Q. Were you aware that an issue in the lawsuit
24 was the determination of the area within which water
25 rights would be determined?

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1 MR. ZIMMER: Vague as to time. At that
2 time?

3 MR. BUNN: Yes.

4 MR. ZIMMER: Okay.

5 THE WITNESS: I think I generally was aware
6 of that. But without any specificity.

7 BY MR. BUNN:

8 Q. Was it your understanding at that time that
9 what you were being asked to do had to do with these
10 boundaries or was it broader than that?

11 MR. ZIMMER: Vague as to "these boundaries."

12 THE WITNESS: I'm not sure I know what you
13 mean by that.

14 MR. BUNN: The ones I was referring to in my
15 previous question.

16 MR. ZIMMER: The area?

17 MR. BUNN: The delineation of the boundaries
18 of the area within which water rights would be
19 determined.

20 THE WITNESS: As I indicated, I think I had
21 a general understanding of that but without any
22 specificity at this time.

23 BY MR. BUNN:

24 Q. And I am asking whether your task was
25 focused on that issue or were there other issues as

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1 well?

2 MR. ZIMMER: Vague.

3 THE WITNESS: I'm sorry to be confused, but
4 as I explained a moment ago, after refreshing my
5 recollection with this document, there were the other
6 issues such as reviewing technical reports; at least
7 one technical report. Discussing the matter with the
8 attorneys. Discussing the matter with the professor,
9 Gorelick --

10 MR. ZIMMER: G-o-r-e-l-i-c-k.

11 THE WITNESS: -- and preparing for a
12 deposition. At this time I did not know all of the
13 specifics that I would be required or asked to look
14 into. It was an ongoing development of information.

15 BY MR. BUNN:

16 Q. Okay.

17 MR. BUNN: I would like to mark that e-mail,
18 if we may, as an exhibit to the deposition.

19 MR. ZIMMER: Can I stipulate that a copy can
20 be attached.

21 MR. BUNN: Of course.

22 (Defendants' Exhibits B and C were
23 marked for identification by the court
24 reporter and are bound separately.)

25 MR. BUNN: And the time records will be

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1 Exhibit C.

2 MR. ZIMMER: And we are bringing substitute
3 copies for the originals. Mr. Bunn will make copies
4 as we are proceeding through together, so Mr. Sheahan
5 can take his records with him.

6 MR. BUNN: So stipulated.

7 (Defendant's Exhibit D was marked for
8 identification by the court reporter
9 and is bound separately.)

10 MR. JOYCE: I propose that for purposes of
11 the transcript, you can reference that; once
12 Mr. Sheahan has had the opportunity to send the
13 extended or the new resume' to you, that it can be
14 appended as Exhibit D.

15 Does that meet with your approval?

16 MR. BUNN: That's fine.

17 MR. ZIMMER: We should have him send it to
18 the court reporter.

19 MR. JOYCE: That is what I said. He will
20 send it to her, and she will append it to the
21 transcript.

22 (A discussion was held off the record.)

23 BY MR. BUNN:

24 Q. In your conversation with Mr. Zimmer on or
25 about March 9, 2002, you were asked to look at

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1 Mr. Scalmanini's report; is that correct?

2 A. That's correct.

3 Q. Were you asked to look at it with any
4 particular issues in mind?

5 A. What do you mean by "particular issues"? Do
6 you mean that as opposed to the general issues that I
7 have already described?

8 Q. What instructions were you given in
9 connection with reading Mr. Scalmanini's report?

10 MR. ZIMMER: That assumes he was given
11 instructions.

12 BY MR. BUNN:

13 Q. If any?

14 A. My best recollection as refreshed by this
15 March 9 document is I was asked to review it to
16 understand what was in it, in preparation for other
17 discussions.

18 Q. Did you subsequently have a conversation
19 with Mr. -- Professor Gorelick?

20 A. Yes.

21 Q. What was the substance of that discussion?

22 A. To the best of my recollection, we talked
23 about the fact that he was involved in this matter as
24 a consultant to Mr. Joyce; I was involved in the
25 matter as a consultant to Mr. Zimmer's firm.

1 We talked about the general nature of the
2 geology and hydrogeology and water resources in the
3 vicinity of Antelope Valley.

4 I think we had some side discussions about
5 our previous involvements together,
6 hail-fellow-well-met. We talked as friends.

7 Q. Did you also do the other tasks that are
8 identified in Exhibit B?

9 A. I'm sorry. Did you say did I do them?

10 Q. Yes.

11 A. We talked about Task 1 and 2, and Task 3,
12 yes. Task 4, yes. And Task 5, yes, with the
13 exception that the deposition date has changed.
14 Task 5 says prepare for and be available for my own
15 deposition on 3/29/02. I've prepared for and I'm
16 available for my own deposition today.

17 Q. Admirably precise answer.

18 Your report identifies a number of tasks
19 specifically that you did in preparing the report.

20 Who came up with that list?

21 A. I did.

22 Q. When?

23 A. Well, over the course of my consulting on
24 this matter, I developed those tasks.

25 Q. Well, had you done it by the time of this

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1 March 9th conversation?

2 MR. ZIMMER: "Done it," being --

3 MR. BUNN: All of the tasks written.

4 THE WITNESS: I had not written them down
5 succinctly, but I was in the process of developing
6 them from the beginning.

7 BY MR. BUNN:

8 Q. At any point have you been asked to limit
9 yourself to the Phase 1 issues?

10 A. Yes. It is my understanding that I am
11 limited to the Phase 1 issues at this point.

12 Q. Do you recall when you were given that
13 direction?

14 A. Not specifically, no.

15 Q. Can you estimate?

16 A. I would estimate that that came out during
17 the discussions that we had in greater detail, myself
18 and the attorneys, on March 10th.

19 Q. On March 9th or March 10th, what was told to
20 you about what the Phase 1 issues were -- strike
21 that.

22 MR. BUNN: When did we enter into the
23 stipulation? It was considerably after that.

24 MR. ZIMMER: I don't remember.

25 MR. JOYCE: The chronology is a little goofy

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1 if you think about it, only because Mr. Scalmanini's
2 deposition had commenced, had not yet been completed,
3 and, in fact, had been suspended before the focusing
4 occurred, if that is an appropriate term.

5 BY MR. BUNN:

6 Q. Okay. So you understand that what is meant
7 by "focusing" is our all agreeing on the language of
8 the Phase 1 stipulation. Okay?

9 A. All right.

10 Q. Do you take that as a definition?

11 A. All right. I don't recall that was part of
12 your question. Are you suggesting that my earlier
13 answer is referring to what you are now defining as
14 "focusing"?

15 Q. No. I am going to ask you a new question.
16 And that is, before that focusing took place, what
17 was your understanding of what the Phase 1 issues
18 were?

19 MR. ZIMMER: That assumes that this witness
20 knows when that focusing took place.

21 BY MR. BUNN:

22 Q. Do you know when that focusing took place?

23 MR. ZIMMER: The focusing we are talking
24 about, the stipulation?

25 MR. BUNN: The finalizing of the

1 stipulation, yes.

2 THE WITNESS: I can respond in this way.
3 The earliest document date that I can recall that I
4 have seen that I referred to the Phase 1 stipulation,
5 if I recall correctly, was May 3rd. It may have been
6 prior to that, but it certainly was at least by
7 May 3rd.

8 BY MR. BUNN:

9 Q. All right. Using that as a reference point
10 then, prior to that, what was your understanding of
11 the Phase 1 issues?

12 A. My understanding was that Mr. Scalmanini's
13 deposition was going to be with regard to his report.
14 His report purported to look at areas in the vicinity
15 of the Antelope Valley.

16 So my understanding of the -- what I'll call
17 now the "first phase" as opposed to, quote, Phase 1,
18 close quote, the first phase had to do with looking
19 at the areas within which the matter would focus.
20 And looking at the area was an earlier task; focusing
21 on the details was a later task.

22 So when I say "the first phase," that is
23 what I am referring to. Whether it was officially
24 called Phase 1 or not at that time, I don't know.

25 Q. Have you ever seen the Court Order

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1 bifurcating the issues in this case?

2 MR. ZIMMER: Vague as to what Order you are
3 talking about.

4 MR. BUNN: There is only one that did that.

5 THE WITNESS: If the Court Order is one of
6 the documents on my reference list in my report, then
7 yes. If not one of those documents, then no.

8 BY MR. BUNN:

9 Q. Would your answer be the same, then, with
10 respect to the Motion to Bifurcate?

11 A. I would hesitate to tell you that I know
12 what you mean by "the Motion." I recall that I have
13 two documents dealing with the Phase 1 stipulation.
14 One dated May 3rd, and one that I believe is dated
15 April 1st. Those are the only two documents that I
16 know of that address that.

17 So if it is one of those, then the answer is
18 "yes." If it is not one of those, the answer is
19 "no."

20 Q. Okay. You told me with respect to the
21 Order, that if it is not in your reference list, you
22 haven't looked at it. And I was asking if that is
23 more generally true.

24 Can you assume that for any document in the
25 court proceeding, if it is not listed here, you

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1 haven't seen it?

2 A. It is generally true with two exceptions. I
3 have some correspondence that came in from
4 Mr. Zimmer, for example, or from Mr. Joyce, which I
5 haven't listed in that list. I have some other
6 administrative documents in my files such as the
7 invoice and so forth, that I have certainly reviewed
8 but are not listed in there.

9 And I have a deposition transcript from
10 Mr. Whitley that is not referenced in there.

11 Those are the exceptions that I can think of
12 right now.

13 Q. Why is the deposition transcript not
14 referenced?

15 A. I didn't receive it until after I prepared
16 that list.

17 Q. In the Notice of Deposition, it was
18 requested that you bring certain documents with you.
19 Have you brought those?

20 A. I have brought all the documents in my
21 possession relating to this matter. So I trust that
22 it meets the intent of the Notice of Deposition.

23 Q. I think that was the intent of the Notice,
24 yes.

25 I have your file, then?

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1 A. Yes.

2 Q. Would you dig that out, please.

3 A. Which file?

4 Q. Do you have a particular file on this matter
5 or more than one?

6 A. I have two boxes and a drawing roll that
7 contains files that all pertain to this matter.
8 Everything except the two briefcases is my file.

9 Q. Okay. I would like to get you to describe
10 generally what is in your file. So that is in those
11 two boxes?

12 A. To assist you, I have an index which
13 identifies a number of my files. That is an index of
14 the files that I have. I would be very happy to let
15 you take a look at that.

16 Q. Sounds like you have done this before,
17 Mr. Sheahan.

18 A. This is common business practice for a
19 consulting firm to maintain technical documents and
20 administrative documents and accounting documents in
21 files. We do this for nearly every project, and as I
22 say, your Notice of Deposition, as I read it,
23 indicated that I needed to bring everything. So I
24 just brought everything that I have.

25 Q. May I see the index then, please.

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1 A. Yes.

2 MR. BUNN: Let's mark this index as the next
3 in order, Exhibit E.

4 (Defendants' Exhibit E was marked
5 for identification by the court
6 reporter and is bound separately.)

7 BY MR. BUNN:

8 Q. It has been marked as Exhibit E.

9 On Page 3 of this, there is a heading at the
10 top that says "Technical Files 101," and then there
11 is an arrow.

12 Do you see that?

13 A. Yes.

14 Q. What does that mean?

15 A. My filing standards are to use Nos. 1
16 through 99 for administrative files, and Nos. 101 on
17 for technical files. This is just an indication
18 saying that technical files are files No. 101 on.

19 Q. Okay. And when you make that distinction,
20 what is included within the technical files?

21 A. It varies for each particular project. I
22 have no specific standards for that. That is set up
23 such that each project manager in my office can
24 assign whatever file names that he wants for the
25 technical files for a particular project.

1 In this instance, it includes all of the
2 reports that I have accumulated and have reviewed as
3 part of this matter. Might be easier to think of it
4 in terms of it is everything that is not included in
5 the administrative files.

6 Q. Okay. Well, it appeared to me looking at
7 the index to be mostly reference materials as you've
8 said, although there are some that are blank here.
9 Well, just one in the technical file, or two. 137
10 and 138 do not have a description.

11 A. I don't believe there are -- actually, my
12 files go through 135. Is there a blank on the
13 previous page for 136?

14 No, there is not. Well, it was my intent to
15 bring them all. I don't see 136 in the box. But at
16 least 137 and 138 are files that have not yet been
17 created.

18 The index is designed to allow adding the
19 files in numerical order. Those are there for
20 convenience, to write in the names of documents for
21 the next subsequent file names.

22 Q. Okay. Would you tell me your best
23 understanding today of what the Phase 1 issue is?

24 MR. ZIMMER: That is irrelevant, what his
25 understanding is. The question is, what he has done

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1 scientifically to make a determination within that
2 stipulation.

3 THE WITNESS: I think I can best respond to
4 that by referring you to my report and looking at the
5 Phase 1 issues. I've identified five tasks that I
6 believe address the Phase 1 issues from my
7 perspective. I think that is the best description
8 that I can give you.

9 I would be happy to read that into the
10 record, if you would like.

11 BY MR. BUNN:

12 Q. No. At \$500 an hour, no thank you. We are
13 spending enough time with my thinking of questions.

14 I have here your report, which is titled,
15 "Report Summary of Assessment of the Phase 1 Issues,"
16 and the date at the bottom is July 16, 2002.

17 Is that the only report that you've
18 prepared?

19 A. It's the final report. I prepared that
20 report from a blank page up to the final, but at one
21 point, I produced a draft report to submit to
22 Mr. Zimmer and others so that they would be able to
23 see what I was writing. So I have that draft report.

24 Q. I would like to see that, if I may.

25 A. What I am handing you is an e-mail dated

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1 July 13, attached to which are printouts of two files
2 that I reference. The first file is the letter
3 report, and the second file is the reference list.
4 This is what I refer to as the draft report.

5 Q. Okay. And you transmitted it to Mr. Zimmer
6 on July 13; is that correct?

7 A. Yes.

8 Q. Are there any significant changes between
9 that draft and the final?

10 A. In terms of the purpose of the report, no.
11 They are significant to me because I like to make
12 sure that all the i's are dotted and the t's are
13 crossed and the punctuation is correct. But other
14 than that, no.

15 MR. JOYCE: Are we marking that?

16 MR. BUNN: Well, yeah, maybe we better.

17 That will be F.

18 (Defendants' Exhibit F was marked for
19 identification by the court reporter
20 and is bound separately.)

21 MR. BUNN: Off the record

22 (A discussion was held off the record.)

23 (Defendants' Exhibit G was marked
24 for identification by the court
25 reporter and is bound separately.)

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1 MR. BUNN: We've agreed off the record to
2 mark Mr. Sheahan's report as Exhibit G. The marking
3 is going to be on my individual copies. Counsel has
4 copies of it already and we are not going to attach
5 it to the deposition.

6 Included in what we've marked is a bound
7 volume, and also a two-page transmittal letter dated
8 July 16, 2002.

9 MR. BRUYNEEL: Mr. Bunn, can I impose on you
10 to show what you have marked, have him authenticate
11 it as a true and complete copy of his report.

12 BY MR. BUNN:

13 Q. Can you do that, please, sir.

14 A. I only have one concern. That is that this
15 version has some pencil marks in it that are not
16 mine.

17 Q. Okay. They are mine.

18 A. Other than that, then yes. And also a true
19 copy of the two-page letter.

20 MR. ZIMMER: How many pages, sir, in the
21 report itself in addition to the two-page letter?

22 THE WITNESS: The letter report proper is a
23 27-page document. There is a -- an Exhibit A fly
24 sheet, and a seven-page references list in Exhibit A.

25 There is an Exhibit B fly sheet and an

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1 envelope containing what I am referring to as
2 Exhibit B, which is a folded map titled "Map of
3 Phase 1 Area Boundary."

4 BY MR. BUNN:

5 Q. Now, you've indicated that other employees
6 of Geomatrix assisted you in the preparation of this
7 report. Other than those employees, did anyone else
8 assist you?

9 A. What do you mean by "assist" me in this
10 case?

11 Q. Well, I wanted to get a complete list of all
12 the people who you have given tasks to in connection
13 with this or received input from.

14 A. I'm trying to clarify. I have accounting
15 people in our corporate office that deal with
16 invoicing matters and time sheet matters.

17 Q. We can exclude them.

18 A. I want to be sure that that is correct. We
19 already talked about my involvement and discussions
20 with Professor Gorelick. Are you including --

21 Q. I am including them. If there is anyone
22 else in the same category, I would like to hear
23 those.

24 A. Those are the only ones in the category.
25 The specific people with whom I have discussed this,

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1 and that would be providing input, in that sense,
2 would be Mr. Zimmer, Mr. Smith and Mr. Johnston,
3 Mr. Joyce and Professor Gorelick.

4 Q. Let's go through the employees that are
5 listed on your time sheet, and I would ask you to
6 give me a brief description of what they did in
7 connection with this project.

8 I just wrote down the last names, but I
9 believe it is Mr. Edwards?

10 A. Yes, Scott Edwards.

11 Scott Edwards is a part-time employee. He
12 is a project geologist. The work that I had him do
13 was twofold. No. 1, it was at my direction to trace
14 out a watershed boundary on topographic maps, and
15 No. 2, to place that information on a map that I
16 could use as Exhibit B.

17 Q. When did you ask him to do that?

18 A. I don't know exactly when. Shortly after I
19 began working on the project. I would have to go
20 look at my files to see when the first time was that
21 he was charged to the job.

22 Q. Let me ask the question in a different way.

23 When did you come to the conclusion that
24 watershed boundaries should be used in this case?

25 MR. ZIMMER: Vague as to "used." You mean

1 to be considered?

2 MR. BUNN: For the Phase 1 boundaries.

3 MR. ZIMMER: Now you changed the question.

4 You mean considered or should be used for the Phase 1
5 boundary?

6 MR. BUNN: Should be used for the Phase 1
7 boundary.

8 THE WITNESS: I'm sorry. Your question
9 confuses me, because I hesitate to have you
10 characterize what I have done as using watershed
11 boundaries for the Phase 1 boundary. I'm not sure
12 what you mean by that.

13 BY MR. BUNN:

14 Q. That is the conclusion I took from your
15 report. If that is incorrect, please tell me where
16 I'm incorrect.

17 A. I would be happy to.

18 I think the report is clear that I've come
19 up with some methods for establishing a Phase 1 area
20 boundary. Watershed boundaries are part of that
21 methodology, but certainly not the entire
22 methodology, and shouldn't be characterized simply as
23 watershed boundaries.

24 Task 3, in my discussion of Task 3 in my
25 report, goes into considerable detail to explain the

1 scientific and other appropriate methods that I have
2 used which incorporate watershed boundaries. Again,
3 watershed boundary should not be used as a shorthand
4 to refer to all of that. That is my concern with
5 your question.

6 Q. Fair enough.

7 A. You characterize what I have done as using
8 watershed boundaries to delineate or to create a
9 boundary in Phase 1 area. In my mind, that is not
10 correct. So I hesitate to answer your question if I
11 don't understand the assumptions going into it.

12 Q. Bear in mind, sir, that I have only had this
13 report for 24 hours. So I may be jumping to a number
14 of conclusions about it. I hope that you'll educate
15 me.

16 Is this a fair statement of the question,
17 then? When was it that you decided to incorporate
18 watershed boundaries in the Phase 1 boundary?

19 MR. ZIMMER: That's vague, but go ahead.

20 THE WITNESS: Let me see if I can respond in
21 this way.

22 From the outset, whenever I deal with
23 groundwater issues I'm interested in watershed
24 boundaries. So early in the program, just in
25 thinking about this area and certainly in reviewing

1 some of the documents that I reviewed early on, I
2 considered watershed boundaries.

3 So from very early in the project, I was
4 interested in looking at watershed boundaries. When
5 I chose to incorporate those exactly, I don't know.
6 But it was some time later as I was developing the
7 methods that I described in the report in Task 3 that
8 I found that watershed boundaries would assist me in
9 developing methods that could identify and find a
10 Phase 1 area boundary.

11 BY MR. BUNN:

12 Q. Now, you just said, I believe, that
13 watershed boundaries are something that you would
14 always consider in a task like this.

15 A. I don't think I said "always." I said
16 generally I do look at those, or at least I intended
17 to say that I generally look at watershed boundaries
18 in these matters. If I said "always," I apologize,
19 because I don't think anything should be
20 characterized as "always."

21 MR. BRUYNEEL: You should never do that.

22 BY MR. BUNN:

23 Q. Can you give me some examples, please, of
24 other projects in which you have considered watershed
25 boundaries?

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1 A. Yes.

2 Q. Please do.

3 A. In looking at the impacts of producing
4 groundwater from an area, frequently I have a need to
5 know how much recharge there is available for the
6 groundwater extraction system.

7 The approach that I use is to start with the
8 watershed or drainage basin boundary surrounding the
9 point of extraction and/or up-gradient of the point
10 of extraction, and to define a watershed or basin,
11 drainage basin boundary, for that purpose in order to
12 evaluate how much precipitation recharge.

13 A specific example is a project I did in
14 Cabazon for a water-bottling company that was looking
15 at developing spring water from a spring. That is
16 one example.

17 Q. Can you tell us what you did in that case.

18 A. Specifically with regard to watersheds?

19 Q. Yes.

20 A. In that case, as part of a much larger
21 project, I mapped the line that I would refer to as
22 the watershed boundary, above a point of discharge
23 from the spring. Calculated the area within that
24 boundary. I look at average annual precipitation in
25 that area and, using precipitation and the area, was

1 able to calculate an average inflow of water from
2 precipitation into that drainage basin.

3 Q. In that specific example, did you also use
4 any smaller areas or were all your investigations on
5 the watershed-wide basis?

6 MR. ZIMMER: Vague as to "small areas."

7 THE WITNESS: For different purposes I
8 looked at various different areas. For example, for
9 designing the bore hole extraction system, I looked
10 at the area in the immediate vicinity of the bore
11 hole based on the lithologic log of the bore hole.

12 In terms of impacts of the bore hole on a
13 spring, I looked at a generally larger area of the
14 area that would see water level changes or hydrologic
15 connection between a bore hole and a spring.

16 For delineation of the geology, I looked at
17 a very broad area of the area of the San Gabriel, San
18 Bernardino Mountains all the way out to Indio.

19 So different things, I use different areas.

20 BY MR. BUNN:

21 Q. In that case, did you concern yourself with
22 the groundwater basin at all?

23 MR. ZIMMER: Vague as to "groundwater
24 basin."

25 THE WITNESS: Again, I think it is important

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1 for me to answer your questions and understand what
2 you mean by "groundwater basin" in this case.

3 BY MR. BUNN:

4 Q. Did you identify in your report a ground --
5 assuming you did a report for that case; is that a
6 correct assumption?

7 A. Yes.

8 Q. -- a groundwater basin?

9 A. More than one report.

10 Q. In those reports, did you identify one or
11 more groundwater basins?

12 MR. ZIMMER: Still vague as to "groundwater
13 basins." Are you asking if he used that term,
14 "groundwater basin," or if he had identified it.

15 MR. BUNN: Whether he used that term.

16 THE WITNESS: If your question is in those
17 reports did I refer to something using the term
18 "groundwater basin," then yes.

19 BY MR. BUNN:

20 Q. What use did you make of that term?

21 A. My recollection is that I referred to other
22 documents that had discussed groundwater basins in
23 the area, and mentioned those in the report.

24 Q. Do you have a name for this project?

25 A. Several names for it.

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1 Q. The most polite.

2 A. They are all polite.

3 Sometimes referred to it as the "Clifford &
4 Brown Project." Sometimes refer to it as a
5 "Bolthouse Project."

6 Q. I apologize; I said "this project," and I
7 meant the Cabazon project that you have been talking
8 about.

9 A. Again, it was a series of different reports
10 dealing with the same site. One project was the
11 definition of the nature and history of the
12 S.P. Spring. I'm doing this from memory, so if I
13 don't have the name exactly right --

14 Another one, the development of a bore hole
15 for extraction of groundwater. Another was the
16 design of the transmission and loading station
17 facilities for this project.

18 There may have been one or two others that I
19 can't recall right offhand. The project involved a
20 number of different aspects.

21 Q. And I am still looking for a general way of
22 referring to it.

23 MR. ZIMMER: To "it" being what aspect of
24 it?

25 MR. BUNN: The various projects that he just

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1 went through.

2 BY MR. BUNN:

3 Q. Is there an umbrella name that we can use?

4 A. I would generally refer to it by the client
5 name and the location area.

6 Q. Okay.

7 A. Or by the particular spring itself. Either
8 one in my mind would tell me the same location.

9 Q. And the spring name was?

10 A. S period P period Spring.

11 MR. BRUYNEEL: Who was the client?

12 THE WITNESS: I'm sorry?

13 MR. BRUYNEEL: Who was the client?

14 THE WITNESS: The client at the time was

15 Perrier Group of America.

16 BY MR. BUNN:

17 Q. And the location you said was Cabazon?

18 A. Cabazon, California.

19 Q. You gave that as an example of a project in
20 which you looked to watershed boundaries. Can you
21 give me another example?

22 MR. ZIMMER: I think what his precise
23 testimony was, that it was where he considered a
24 watershed boundary. May not have made a distinction,
25 but that was what he testified to. Go ahead.

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1 THE WITNESS: My recollection is that most
2 recently we were talking about that as a project
3 where I used the term "groundwater basin" in a
4 report. I'm not sure I know what you are asking me
5 now.

6 BY MR. BUNN:

7 Q. Whether there were other projects in which
8 you considered watershed boundaries.

9 A. Yes, many other projects. I can't possibly
10 name them all. The ones that we have talked about
11 today that I recall, we talked about the Santa
12 Barbara Groundwater Modeling Project. I looked at
13 watershed boundaries for that.

14 The Montecito County Groundwater District
15 Conjunctive Use Study, I looked at watershed
16 boundaries for that. The correct project dealing
17 with the Mojave basin area for URS, dealing with the
18 transition zone in the Mojave basin area, looking at
19 watersheds for that. Watershed boundaries for that.

20 Almost every project -- certainly not every
21 project, but almost every project dealing with
22 groundwater resources, I would look at watershed
23 boundary.

24 Q. In the Santa Barbara Modeling Project, what
25 did the model cover?

1 A. The model covered a designated area in the
2 vicinity of the city that I considered to be broad
3 enough to account for the specific aspects that I was
4 looking to model, which was pumping from some
5 specific well locations, and seawater intrusion
6 affects that might have occurred from those pumping
7 locations.

8 Q. Have you ever used a groundwater basin as a
9 study area?

10 MR. ZIMMER: Vague as to "groundwater
11 basin."

12 BY MR. BUNN:

13 Q. What you've called a groundwater basin.

14 MR. ZIMMER: Assuming facts not in evidence,
15 what he is calling "groundwater basin" is the same
16 thing every time he used it.

17 MR. BUNN: No. My question is, has he ever
18 used what he called a groundwater basin as a study
19 area.

20 MR. ZIMMER: You are assuming what he called
21 a groundwater basin each time he called it a
22 groundwater basin was the same thing.

23 MR. BUNN: I am not assuming.

24 BY MR. BUNN:

25 Q. But please answer the question.

1 A. I know that I have done studies where I've
2 referred to areas as groundwater basins, and I know I
3 have done studies where the groundwater basins so
4 referred to were also study areas.

5 I have also done studies where I referred to
6 an area as a groundwater basin and I have defined a
7 study area that is the groundwater basin. I've also
8 done studies where I've referred to an area as a
9 groundwater basin and I have had a study area that
10 has been less than all of that area.

11 So that answers your question.

12 Q. When you refer to a groundwater basin, does
13 that reference mean different things in different
14 projects?

15 A. Absolutely.

16 Q. What is one of the things that you use
17 "groundwater basin" to refer to?

18 MR. ZIMMER: It is vague as to what
19 particular project.

20 MR. BUNN: He can choose.

21 THE WITNESS: In this matter, I have
22 reviewed the report by Luhdorff and Scalmanini which
23 shows some boundaries that are referred to as
24 "groundwater basin boundaries."

25 So that is an instance where if I were to

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1 refer to one of those boundaries, I might refer to it
2 as a "groundwater basin boundary" as defined in that
3 report.

4 BY MR. BUNN:

5 Q. Okay. So you are saying that Mr. Scalmanini
6 had something in mind when he said "groundwater
7 basin," and if you refer to it you meant what
8 Mr. Scalmanini had in mind; is that correct?

9 A. If that was my reference, yes, I might have
10 referred to it in another way. But that might have
11 been one way. You asked me to give you one way.

12 Q. If you yourself were referring to a
13 groundwater basin, not depending on someone else's
14 definition of it, you've testified that that could
15 mean different things in different cases, and I
16 appreciate that. What I want to get to is a list of
17 the different things it can mean. So if you could
18 start with one of those.

19 A. If you would give me the first hypothetical,
20 I'll be happy to consider it and tell you how I would
21 apply it. It is impossible for me to sit here and
22 tell you each and every possible hypothetical way
23 that I might use a generic term such as "groundwater
24 basin."

25 Q. In the Antelope Valley, does it make sense

1 to describe an Antelope Valley groundwater basin?

2 MR. ZIMMER: Make sense for what? It is
3 vague.

4 BY MR. BUNN:

5 Q. Answer the question.

6 A. It would depend on the purpose.

7 Q. Okay. Does it ever make any sense?

8 MR. ZIMMER: Vague.

9 THE WITNESS: I don't know if it does ever.
10 It might, depending on the purpose. If I know what
11 the purpose was, I might be able to answer that, but
12 it is purpose-dependent. Without a purpose, there is
13 no way I can answer your question specifically.

14 BY MR. BUNN:

15 Q. Well, I'm asking you if there is any way
16 that you can conceive of that you would refer in your
17 professional work to a groundwater basin in the
18 Antelope Valley.

19 MR. ZIMMER: Calls for speculation.
20 Incomplete.

21 THE WITNESS: I think I've given you one.

22 BY MR. BUNN:

23 Q. If you are talking about what somebody else
24 is doing. Is there any others?

25 MR. ZIMMER: Vague.

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1 THE WITNESS: There may be others. It would
2 depend on the purposes.

3 BY MR. BUNN:

4 Q. Can you think of any?

5 A. Yes.

6 Q. Would you please give me an example.

7 A. I would be happy to.

8 If I were referring to the way that term is
9 used in some of the other published documents
10 concerning groundwater conditions up in the vicinity
11 of the Antelope Valley, I might comment that the
12 study area boundaries used for those have also been
13 referred to in those documents as "groundwater basin
14 boundaries."

15 Q. Are you saying that you yourself would not
16 refer to a study area as a "groundwater basin" --

17 A. No.

18 Q. -- concerning the Antelope Valley?

19 MR. ZIMMER: Vague and incomplete.

20 THE WITNESS: I am not saying that.

21 BY MR. BUNN:

22 Q. In what circumstances would you say that?

23 MR. ZIMMER: Vague and incomplete.

24 THE WITNESS: It would depend on the
25 individual project and the purposes.

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1 BY MR. BUNN:

2 Q. I understand that. Please give me an
3 example of when you would use "groundwater basin" to
4 delineate a study area, let's say.

5 MR. ZIMMER: In addition to what he
6 testified to so far?

7 MR. BUNN: Yes.

8 MR. ZIMMER: Putting aside the vagueness and
9 incomplete nature of it, go ahead.

10 THE WITNESS: Well, an example we have
11 talked about, notwithstanding your comment, was the
12 Cabazon area that I mentioned, that I referred to
13 areas down there as groundwater basins because they
14 had been referred to as such in other reports. In
15 that instance, I would use that same term for
16 consistency with what has been done by others.

17 So the purpose of using the term there was
18 for clarity and consistency with what was done by
19 others. The purpose was not for some other esoteric
20 purpose or some other specific purpose.

21 BY MR. BUNN:

22 Q. So the purpose in using "groundwater basin"
23 in Cabazon was to tie it into the work of previous
24 investigators; is that correct?

25 A. Partly. And as I say, to communicate to

1 others what we were trying to say.

2 Q. You testified that you have in the past used
3 "groundwater basin" as a study area.

4 A. I don't think that is correct.

5 Q. Okay. What is correct? Have you ever used
6 it as a study area?

7 A. I believe what I testified to was that in
8 the past I have designated study areas which I have
9 referred to as groundwater basins in some instances.

10 Q. Okay. And when you referred to them as
11 groundwater basins, you testified about one possible
12 reason for doing so, and that is because other people
13 have referred to them as groundwater basins and you
14 wanted to use the same area? I'm paraphrasing, but
15 is that fair?

16 A. That is fair, yes.

17 Q. Is there any other reason that you can
18 recall in your specific work that you have
19 referred -- that you have designated a groundwater
20 basin as a study area?

21 MR. ZIMMER: That is two things. First, he
22 testified in addition to that he did it for
23 consistency. And second, you said where he
24 "designated" it. I'm not sure what that means. It
25 is vague.

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1 BY MR. BUNN:

2 Q. Do you understand the question?

3 A. I would like you to explain what you mean by
4 "designated." Are you talking about the situation
5 where I have designated the study area that I have
6 also referred to as a groundwater basin, or where I
7 have designated something as a groundwater basin not
8 for some other purpose but just as a groundwater
9 basin? It is not clear.

10 Q. Let's do the latter first. Have you ever
11 designated something as a groundwater basin?

12 MR. ZIMMER: Vague as to "designated."

13 THE WITNESS: Not without having a clear
14 purpose for that. I explained one purpose. One
15 purpose is consistency with others' work. Another
16 purpose is to help communicate ideas. I know what
17 someone else thinks a groundwater basin is, and I use
18 that term in order make sure that I am expressing my
19 idea to that person or that group of persons in a
20 proper way.

21 BY MR. BUNN:

22 Q. Okay. And then back to the other half, and
23 that was the reasons you might have designated a
24 study area to be a groundwater basin.

25 Have you ever done that?

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1 MR. ZIMMER: It is vague.

2 THE WITNESS: I believe I attempted to be
3 very careful the way I described that. I believe I
4 described it as designated a study area that I
5 referred to as a groundwater basin.

6 BY MR. BUNN:

7 Q. Okay. Let's keep that in -- that concept in
8 mind, okay?

9 A. Yes.

10 Q. Would you give me an example of when you --
11 what you said?

12 A. I think I understand your question.

13 I can't tell you each and every instance.
14 But of the ones that we've talked about, I would have
15 to go refresh my recollection by reading the report.
16 But I'm pretty darn sure that the Santa Barbara area
17 that I modeled I referred to as a groundwater basin.
18 But that was a model study area.

19 MR. JOYCE: Out of curiosity, do you have
20 any kind of scheduling idea of what we are going to
21 do here?

22 MR. BUNN: Keep going till I drop.

23 MR. JOYCE: I just want to know.

24 MR. BUNN: It is 1 o'clock. Let's break for
25 lunch.

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1 (Whereupon, at the hour of 12:59 p.m.,
2 a luncheon recess was taken, the
3 deposition to be resumed at 1:58 p.m.)

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1 PASADENA, CALIFORNIA; THURSDAY, JULY 18, 2002

2 1:58 P.M.

3

4 N. THOMAS SHEAHAN,

5 having been previously duly sworn,

6 was examined and testified as follows:

7

8 EXAMINATION

9 BY MR. BUNN:

10 Q. When we left off for lunch, we were talking
11 about your Santa Barbara modeling project. And if I
12 understand your testimony correctly, that was a time
13 when you used the groundwater basin as the study
14 area; is that correct?

15 MR. ZIMMER: That misstates his testimony.

16 MR. BUNN: I am asking him if that is
17 correct.

18 THE WITNESS: That is not correct.

19 BY MR. BUNN:

20 Q. Okay. In what way is it incorrect?

21 A. Well, it is incorrect in that it misstates
22 my testimony.

23 Q. In what way is it incorrect?

24 A. Are you asking me to recall from memory what
25 my testimony was with regard to some specific

1 question? Because if so, I would ask you to go back
2 to the record and see what it was I said. I know I
3 did not say that.

4 Q. I am not asking you that. I'm asking you --
5 I attempted to paraphrase your testimony by saying
6 that was the case in which you used the groundwater
7 basin as a study area.

8 Is my statement correct or incorrect?

9 A. It is incorrect.

10 Q. In what way is my statement incorrect?

11 A. Well, it is incorrect in that that isn't
12 what I testified to.

13 Q. I am not asking what you testified to. I'm
14 asking whether, in fact, you used the groundwater
15 basin as your study area.

16 MR. ZIMMER: It misstates the -- you have it
17 reversed. He testified that he has determined a
18 study area, and has previously described it as a
19 groundwater area depending on how other people have
20 described it.

21 MR. BUNN: I am not trying to characterize
22 his testimony now. I am asking what is incorrect
23 about that statement.

24 MR. JOYCE: He has already -- never mind.

25 Go ahead. I'll let you handle it.

1 THE WITNESS: I don't understand the
2 question as you are phrasing it. Maybe you can
3 rephrase it.

4 BY MR. BUNN:

5 Q. Did you use, in that case, the groundwater
6 basin as your study?

7 MR. ZIMMER: It is the same question. But
8 go ahead.

9 BY MR. BUNN:

10 Q. Do you not understand that question?

11 A. Your question has a number of ambiguities to
12 it based on my understanding of it.

13 We haven't defined what a "groundwater
14 basin" is yet. We have tried to explain to you there
15 are times that I have defined study areas which I
16 have referred to as "groundwater basin," and it makes
17 it difficult for me to understand the specific
18 question because you are not only turning it around
19 but using the term "groundwater basin" as if it is a
20 defined term. We have had trouble all morning with
21 that, because I still don't have a definition of that
22 term as you are using it.

23 Q. Let me try and restate what you are saying
24 again, then.

25 In the Santa Barbara project, you referred

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1 to your study area as a "groundwater basin"; is that
2 correct?

3 A. I have to say that this was a study I did in
4 1973 and 1974. So my recollection may be incomplete.
5 I've not reviewed that report for literally decades.

6 But my best recollection is that at that
7 time, after defining a study area for the purposes of
8 building or developing a computerized groundwater
9 basin model, I believe I referred to that model
10 boundary with the term "groundwater basin."

11 I believe I did. If we want to get very
12 specific, I am going to have to back down and say I
13 better wait until I can review that report to be
14 sure. If that is very important to you, then I have
15 to say I don't have a very good recollection of what
16 I said in that report. I am telling you what I
17 believe I did.

18 Q. Right now the emphasis that you are placing
19 is you did "study area" first, and then you named it
20 rather than trying to make the study area equal to
21 groundwater basin; is that correct?

22 MR. ZIMMER: Misstates his testimony, that
23 he named it. It is also vague. He said he described
24 it.

25 THE WITNESS: I believe the way I explained

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1 it to you was correct. I'll be happy to do it again
2 if you would like.

3 BY MR. BUNN:

4 Q. Yes, whether you were -- whether my
5 inference was correct that you were placing emphasis
6 on the order of it: "Study area" first and
7 designation as "groundwater basin" second.

8 A. I was not placing emphasis on the order at
9 all. I was placing emphasis on the fact that I
10 defined the study area, and once defined, I referred
11 to that area perhaps in many ways. Certainly as
12 "study area."

13 I also, I believe, referred to it as
14 "groundwater basin," but that is not to suggest that
15 I first defined a study area and then I defined a
16 groundwater basin.

17 So to the extent that your question is
18 characterizing my earlier statement as being a one
19 and a two, with the two being a definition of a
20 groundwater basin, then that is not correct.

21 It is a reference.

22 Q. What would your definition be of
23 "groundwater basin"?

24 MR. ZIMMER: Vague as to what context? What
25 purpose?

1 THE WITNESS: That would have to be my
2 answer, too. It would depend on what purpose I was
3 going to define "groundwater basin." There are a
4 number of definitions of groundwater basin that I
5 might refer to, but it would depend on the particular
6 instance and the particular purpose.

7 BY MR. BUNN:

8 Q. What would it depend on?

9 A. I'd have to have a specific situation to
10 answer that.

11 Q. Is it your testimony that you cannot give a
12 definition of groundwater basin without having the
13 specific situation to refer to?

14 A. I can give a definition by referring you to
15 definitions that have been given by others that are
16 used frequently. But I can't give you a definition
17 of groundwater basin that applies to all cases,
18 because it would have to be different for different
19 situations and for different purposes.

20 Q. Is there a generally accepted definition?

21 MR. ZIMMER: For what purpose? It is vague.

22 THE WITNESS: There are published
23 definitions that are sometimes considered to be
24 generally accepted, but it depends on which author
25 you go to as to what definition there is. And it is

1 very clear that "groundwater basin" is not a defined
2 term of art that we can apply across the board to all
3 cases.

4 BY MR. BUNN:

5 Q. If someone were to ask you without any
6 context, "Mr. Sheahan, what is a groundwater basin,"
7 would you be able to give an intelligent answer?

8 MR. JOYCE: Intelligent, or scientifically
9 supported?

10 MR. BUNN: I meant what I said, I think.
11 Maybe I meant to say "intelligible answer."

12 MR. ZIMMER: Calls for speculation, because
13 you are asking him to speculate whether it would be
14 an intelligent answer, which assumes that he knows
15 the context in which you are asking the question.

16 MR. BUNN: I said without any context.

17 MR. ZIMMER: Right. But it depends on
18 whether -- it depends on whether the person --
19 depends on what the person asking the question has in
20 mind when they are asking the question.

21 It may or may not be an intelligent answer,
22 depending on how you speculate what the person asking
23 the question is thinking or why they are asking the
24 question. He might assume you are thinking one
25 thing, and it may be an inappropriate answer if he is

1 wrong in his assumption.

2 MR. BUNN: I will agree that whatever answer
3 he would give would be intelligent.

4 BY MR. BUNN:

5 Q. What would your answer to that question be
6 if someone asked you, "What is a groundwater basin"
7 without any context?

8 A. It would depend on the person and the
9 background of the person and the nature of the
10 context.

11 There is no definition that I know of that
12 applies to all cases, so it would be inappropriate to
13 simply answer that question. I think any such answer
14 would not be an intelligent answer without knowing
15 the context.

16 So I would say, "Tell me more about what you
17 want to know so that I can answer your question," if
18 someone were to ask me that.

19 Q. Okay. Let's put it in the context of
20 determining water rights within that groundwater
21 basin. Could you then give a definition?

22 MR. ZIMMER: Vague as to what kind of water
23 rights. Vague as to what kind of groundwater basin.

24 THE WITNESS: That would help. Am I talking
25 with my five-year-old granddaughter or am I talking

1 with an attorney in a water rights matter or am I
2 talking to a hydrogeologist? All of those things.

3 Again, the point is, the term is not a term
4 of art that is well-defined. Where it is defined is
5 that it is noted that it is a very general term.
6 There is no way to give a specific definition of a
7 term that is defined only in generalities.

8 BY MR. BUNN:

9 Q. How about watershed? Can you give a
10 specific definition of that?

11 A. I would define that as a drainage basin.

12 Q. And what is a drainage basin?

13 A. A drainage basin is an area within which all
14 of the surface water is flowing to a common discharge
15 point. I believe you have a definition of that in my
16 report. If I misstated it by one word or another, I
17 would refer you to my report.

18 Q. I am not trying to hold you to particular
19 words. I am trying to get the substance.

20 Okay. I asked you a minute ago about what
21 Mr. Edwards did for you. Now I'm going to ask the
22 same question with respect to the other people.

23 What did Mr. or Ms. Hamer --

24 A. It is Mr. Hamer. Greg Hamer.

25 Greg assisted me in assembling reports, and

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1 assisted me in providing some peer review of some of
2 my text for formatting and for readability of my
3 report. He also participated in some of my
4 discussions with Dr. Gorelick.

5 Q. What function does he have in your
6 organization?

7 A. He is a -- he is a senior hydrogeologist.
8 At our Senior 2 level. He is one rank below me, if
9 you will, in the organization. He serves as a senior
10 hydrogeologist project manager, senior consultant on
11 a number of different projects.

12 Q. Did he assist you in reaching the
13 conclusions that you expressed in your report?

14 MR. ZIMMER: Vague as to "assist" and
15 "conclusions." Did he perform some of the
16 conclusions or just provide data? Or all the above.

17 MR. BUNN: Whether he contributed to the
18 conclusions.

19 MR. ZIMMER: Go ahead, if you understand.

20 THE WITNESS: He certainly assisted me by
21 taking some of the burden of some of the other tasks
22 that needed to be done, such as tracking down
23 documents and getting maps ordered and so forth,
24 which freed me up to spend more time on looking at my
25 conclusions.

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1 But if you are asking me are any of my
2 conclusions conclusions that he came up with and that
3 I have taken as my own, the answer is "no."

4 BY MR. BUNN:

5 Q. Okay. That is a good way to put it.

6 Mr. Stroma, what did he do?

7 A. That is Ms. Stroma.

8 Q. I'm sorry. The one time I didn't say
9 "Mr. or Ms.," I got it wrong.

10 A. Jen Stroma is a staff geologist that has
11 just been with us for a few weeks to a month. So I
12 had her do some relatively minimal tasks.

13 For example, I had her go through and write
14 the citations for the documents, following a standard
15 style for citations. And I had her develop my
16 reference list based on those citations. I gave her
17 the documents and said "Write the citations, type
18 them into a reference list."

19 I also had her put together some of the file
20 folders for me. I had her order some maps. Had her
21 assemble some of the maps into stacks alphabetically.
22 Those kinds of things.

23 Q. Okay. And Ms. Wirth?

24 A. Ms. Wirth is our project assistant, which
25 includes secretarial as well as project-specific

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1 details. But most of what she did was
2 administrative. She takes care of time sheets on a
3 specific project. He set up the filing system and
4 she maintains the files. I give her documents to
5 file or I ask her to get me documents.

6 She also helped coordinate the acquisition
7 of some of the technical documents as my liaison to
8 our in-house librarian. She did --

9 Q. You need a liaison to your librarian?

10 A. I didn't say that I needed one. I said that
11 I used her for that purpose. It is much more
12 efficient to use a project assistant to interact with
13 the library than to spend time to do that myself. So
14 I tend to save clients money by doing that.

15 Q. The draft report that we've marked as an
16 exhibit, you sent that to Mr. Zimmer; is that
17 correct?

18 A. Yes.

19 Q. Who else did you send it to?

20 A. I believe I faxed a copy of that to
21 Professor Gorelick, and I think that is the only
22 other instance.

23 Q. Did you receive any comments back from
24 either of those people?

25 A. What do you mean by "comments"?

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1 Q. Was there anything said to you in -- after
2 you sent out the draft?

3 A. Yes. I had a discussion with Mr. Zimmer
4 about it. We talked about various aspects of it.
5 And I had a discussion with Professor Gorelick about
6 it, and we talked about various aspects.

7 Q. What did Mr. Zimmer say to you?

8 A. I don't remember specifically. He was
9 generally pleased. I pointed out the draft report
10 had not been through my final editing yet. That
11 there were some changes to it.

12 He asked me in some cases why I was phrasing
13 things in one way or another, and I would explain
14 that to him. I talked to him about my overall
15 concepts and why I was preparing the report the way I
16 did.

17 And that was about it.

18 Q. When you say you talked to him about your
19 overall concepts, could you be a little more specific
20 about what you said to him?

21 A. I can't tell you word-for-word but, for
22 example, I would talk about my first opinion. I
23 said, "That is my opinion. This is the way I feel it
24 ought to be said. I feel this is a nice general
25 statement or summary statement of my opinion. And I

1 think it is consistent with the bases for that
2 opinion I represented."

3 Perhaps -- I am trying to characterize it,
4 because I don't know exactly what are the bases. And
5 I would talk about where in the report I had what I
6 considered to be bases for that general opinion. We
7 had those kind of discussions.

8 Q. And Professor Gorelick?

9 A. Our discussion was more on the methods for
10 finding the -- what I have called in my report the
11 "Phase 1 Area Boundary." The hydrogeological aspects
12 that I brought into the first of two methods that is
13 associated with the watershed boundary portion. We
14 discussed concepts of hydraulic conductivity and
15 transmissivity, t-r-a-n-s-m-i-s-s-i-v-i-t-y, of the
16 various geologic formations in the area.

17 We discussed the locations of the watershed,
18 the different watershed boundaries that I had
19 defined. We discussed the judicially determined
20 boundary on the east side of the general Antelope
21 Valley area.

22 We discussed those kinds of things to make
23 sure that he understood what I was saying and to see
24 if there was any information that he might be able to
25 provide to me.

1 Q. Did he question any of the conclusions in
2 your report?

3 A. I don't know what you mean by "question."

4 Q. Indicate that he might have reached a
5 different conclusion.

6 MR. ZIMMER: That assumes a fact not in
7 evidence, that he performed the same conclusions or
8 did the same analysis.

9 BY MR. BUNN:

10 Q. Did he ask you what the basis was for any of
11 the conclusions in your report?

12 A. I don't recall that he did specifically, but
13 I think much of our discussion had to do with what I
14 would characterize as the bases for my opinions.

15 We discussed more the bases, if I recall
16 correctly; I don't recall that we discussed the
17 opinions, per se, with the possible exception of the
18 delineation of the Phase 1 boundary. That is an
19 opinion that I presented, a boundary, in my report.

20 Q. Yes.

21 A. I believe we discussed that, and the bases
22 for that.

23 Q. Explain how that discussion went.

24 A. I don't think I can. I can tell you
25 generally. I don't have --

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1 Q. In as much detail --

2 A. I don't have a present recollection of
3 exactly what we said.

4 Q. In as much detail as you can recall.

5 A. I think I have just given that to you. We
6 discussed the -- and I'll do that again if it would
7 help.

8 Q. Yes.

9 A. We discussed the methods that I selected for
10 use in that, which included the watershed boundary
11 and the geologic materials underlying the watershed
12 boundary, and the judicially determined boundary on
13 the east side. We discussed --

14 Q. Let me stop you there.

15 A. All right.

16 Q. Did you discuss why the watershed boundary
17 was chosen in the areas for where it was chosen?

18 A. I don't think we discussed that, because
19 that is not -- that is not something that is a
20 variable. A watershed boundary is a scientifically
21 defined line. It is not something that requires
22 discussion. It is where it is.

23 Q. Let me rephrase my question.

24 Did you discuss why it was that you were
25 using the watershed boundary as the Phase 1 boundary

1 in those areas where you do?

2 A. I'm sorry. I have to say again, as I did
3 this morning, I'm -- characterizing what I did as
4 using the watershed boundary as the Phase 1 area
5 boundary ignores the fact that there are other
6 aspects to the Phase 1 area boundary, and I hesitate
7 to have it characterized as the "watershed boundary"
8 being the Phase 1 area boundary. It is more than
9 that.

10 Q. For the vast majority of your boundary, it
11 is equal to the watershed boundary, is it not?

12 A. Again, I tried to be very clear in the
13 report. I came up with different methods to assist
14 in defining the boundary. One method utilized the
15 watershed boundary as a portion of the method but not
16 as the entire method.

17 Q. I understand that. And I asked whether it
18 was the majority or vast majority, I believe I said.

19 A. With all due respect, I don't believe you
20 understand what I am trying to say now.

21 The watershed is only a portion of that
22 method. The other portion of that method is where
23 the watershed boundary overlies the appropriate types
24 of geologic materials. It is the combination of
25 those two concepts into a single method that I used

1 to define a portion of the Phase 1 area boundary.

2 Q. Are you telling me that you can't say what
3 percentage of your boundary is the same as the
4 watershed boundary?

5 MR. ZIMMER: That is vague, because you are
6 not differentiating.

7 MR. JOYCE: Mr. Bunn, you are obviously not
8 appreciating what he is saying.

9 What he is saying is that the watershed
10 boundary, in the sense that they are using that term,
11 is by itself not even one of the criteria; that the
12 watershed boundary is only a piece of a two-criteria
13 test for that portion of the boundary which is
14 represented as a watershed boundary.

15 But there is another element, the second
16 element being the composition of the material over
17 which that watershed boundary lies.

18 Am I correct?

19 THE WITNESS: That is correct.

20 MR. BUNN: I think I understood that.

21 BY MR. BUNN:

22 Q. My question now is, can you tell me what
23 proportion of your boundary, of your Phase 1
24 boundary, is the same as the watershed boundary.

25 MR. JOYCE: Incorporating both of the

1 elements that I have just described or just one of
2 the two elements?

3 MR. BUNN: No. Not incorporating any
4 elements.

5 MR. ZIMMER: That assumes facts not in
6 evidence, that he relies solely on the watershed
7 boundary independent of geologic composition.

8 MR. BUNN: I am not assuming that. In fact,
9 he testified to the contrary.

10 MR. JOYCE: He just testified now that the
11 line represents a watershed boundary which also
12 happens to overlie materials of a certain
13 characteristic. The two things have to co-exist in
14 time and space to become part of his boundary. Your
15 question presupposes only one of two.

16 MR. BUNN: I would appreciate it if you
17 would let the witness answer the question.

18 MR. JOYCE: As soon as he gets a question he
19 can answer, he will.

20 My objection is noted. My characterization
21 of his testimony, which is accurate, is noted. Your
22 mischaracterization is noted.

23 And now you can proceed.

24 BY MR. BUNN:

25 Q. What portion of your boundary is the same as

1 the watershed boundary?

2 MR. ZIMMER: It is vague.

3 THE WITNESS: If I may, in response to your
4 question -- because I believe it is vague. Let me
5 respond. I think I can get through this.

6 There is a portion of the area that I have
7 designated as the Phase 1 area boundary that
8 coincides with a line that I have drawn as a
9 watershed boundary.

10 I could measure very precisely the total
11 length of that line, and I could, if you would like,
12 measure the total length of the rest of the Phase 1
13 area boundary, and I could give you a percentage. I
14 have not done that.

15 But the portion that coincides with the
16 watershed boundary is certainly greater than
17 50 percent of the Phase 1 area boundary that I have
18 defined in Exhibit B of my report.

19 Does that help answer your question?

20 BY MR. BUNN:

21 Q. Yes. That is exactly what I was asking.

22 A. I think not, but -- my understanding of your
23 question wasn't that, and I have given you this
24 answer hoping that it will help.

25 Q. Okay. Then why don't you tell me what your

1 understanding was of my question and answer that.

2 MR. ZIMMER: Does it make any difference at
3 this point?

4 MR. BUNN: Yes.

5 THE WITNESS: My understanding of your
6 question was that you were equating watershed
7 boundary and my Phase 1 area boundary, or at least a
8 portion of it, as one and the same thing.

9 And my answer was not that they are one and
10 the same thing; it was that my Phase 1 area boundary
11 coincides with the watershed boundary or the -- that
12 portion of the watershed boundary that I selected for
13 the Phase 1 area boundary.

14 I see those two as totally different things,
15 and there is a significant difference.

16 BY MR. BUNN:

17 Q. Okay. Thank you for explaining that
18 difference.

19 Did you discuss with Professor Gorelick why
20 you chose a line that coincided with the watershed
21 boundary?

22 A. Yes.

23 Q. Okay. What was discussed?

24 A. I recall discussing two aspects of that.

25 The first aspect was with regard to that

1 portion of the Phase 1 area boundary that I selected,
2 that I selected based on the combination of the
3 watershed boundary and the hydrogeologic
4 characteristics of the materials underlying that
5 groundwater basin. And I discussed the fact that
6 that combination of criteria constituted one of the
7 methods that I selected for defining that Phase 1
8 area boundary.

9 And I recall that Professor Gorelick
10 understood that very well and had essentially no
11 comment. It seemed to me that he accepted my
12 explanation.

13 The second aspect I discussed with him, the
14 judicially determined boundary on the east side that
15 I have used to define the eastern portion of my
16 Phase 1 area boundary, and the fact that a portion of
17 that boundary coincides with the watershed boundary
18 in that area; however that watershed boundary is not
19 a boundary that I have -- let me see if I can
20 rephrase this.

21 I have not selected that boundary based on
22 its being a watershed boundary; I've selected that
23 boundary based on its being a judicially defined
24 boundary. The fact that it coincides with the
25 watershed boundary we discussed, and he understood

1 that part of it. And again, I don't recall that he
2 had any comment.

3 Q. Okay. Did you discuss other matters with
4 respect to the selection of the boundary line with
5 him?

6 A. I -- yes, I believe we did. I believe we
7 discussed the matter of whether or not there were
8 pub -- in the published information we looked at,
9 whether there were any wells in the vicinity of the
10 boundary. And we looked at some information
11 concerning that, and concluded that we didn't see any
12 wells in the vicinity of the boundary, other than on
13 the east side where we have the judicially determined
14 boundary.

15 Q. Did you discuss with Professor Gorelick what
16 you understood to be the purpose of drawing a
17 boundary line?

18 A. Well, I would have to say "yes," because I
19 had a discussion with Professor Gorelick after I had
20 sent him a copy of my draft report. I believe my
21 draft report has that concept inherent in it, as I
22 indicate in my draft report what the purpose is.

23 So discussions that we had concerning the
24 Phase 1 area boundary subsequent to his reading the
25 draft report, I would have to say were with regard to

1 the purpose; so we discussed the boundary with regard
2 to the purpose in that context.

3 I don't recall having any other discussions
4 like that, though. Perhaps we did. I don't recall.

5 Q. Did the issue ever come up in your
6 discussions with Professor Gorelick as to whether to
7 include the Fremont basin within your boundary or
8 not?

9 A. Yes.

10 Q. What was discussed in that regard?

11 A. We referred to it as the Fremont Valley.

12 Q. Okay.

13 A. And the discussion was whether or not
14 another watershed boundary that -- other than the
15 watershed that outlines the Fremont Valley, would
16 serve the purpose of defining the Phase 1 area.

17 Q. Okay.

18 A. So we discussed it in that regard.

19 Q. Okay. And what was said pro and con?

20 MR. ZIMMER: Assumes things weren't said
21 both ways.

22 THE WITNESS: I don't know that there was
23 anything said.

24 BY MR. BUNN:

25 Q. You said it -- you discussed whether it

1 would serve?

2 A. Yes, we discussed that. And my recollection
3 is we both agreed that there was not another
4 watershed boundary that would serve, and that it was
5 necessary to incorporate the Fremont Valley within
6 the Phase 1 area boundary.

7 Q. Did you discuss with him whether or not to
8 include the Leona Valley within your boundary?

9 A. Yes.

10 Q. What was discussed in that regard?

11 A. Well, similar kind of discussion. We
12 discussed whether or not a separate watershed
13 boundary other than the one that I have selected for
14 the Phase 1 area boundary would meet the purpose
15 there, whether there was a problem with doing that or
16 whether it -- I'm not sure how to phrase it exactly
17 right; whether it was the right thing to do, whether
18 it met what I was trying to do.

19 We discussed it, I had concluded that we
20 needed to go south of the Leona Valley and define a
21 watershed boundary south of that for purposes of
22 defining the Phase 1 area boundary, and I recall that
23 Professor Gorelick agreed with that.

24 You have to ask him whether he agrees with
25 it or not. That is my recollection.

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1 Q. I intend to.

2 A. I understand.

3 Q. In your report, you identify five tasks.

4 And I'm -- I believe that you testified you were the
5 one that came up with those tasks.

6 Is that correct?

7 A. Yes.

8 Q. On what did you base your identification of
9 those tasks? Would it be helpful to go through them
10 one by one or can you do it as a whole?

11 A. I can't do it as a whole, but I can go
12 through them one by one if you like.

13 Q. Yes, please. Do you have a copy of your
14 report so that we can both --

15 A. I do.

16 Q. If it would be helpful to you to look at it
17 as I'm asking the questions, feel free.

18 A. I'm looking at Page 2 of my report where I
19 first identify five specific tasks that I've selected
20 to address what I call the Phase 1 issues.

21 The first task review and critique, the
22 capital L, ampersand, cap S, cap T, technical
23 memorandum, I identified that task, because that was
24 consistent within my initial discussions with
25 Mr. Zimmer about one of the things that he wanted me

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1 to do. If you recall, I believe the date is
2 March 9th, confirming authorization e-mail.

3 Q. Yes.

4 A. I identified that as one of the items at
5 that point. So I identify it as a task here, that
6 same item, based on my understanding of what I was
7 asked to do.

8 Q. So it is fair to say that that task was
9 identified as early as March 9th?

10 A. In one context, yes. This task was not the
11 task I identified on March 9th; these are the tasks
12 that, between approximately March 9th and the time
13 that I wrote this report, that I had assembled as a
14 group of tasks.

15 That one had come to my attention earlier,
16 but it's -- and it is in here, and it is the same.
17 And the basis for it is the fact that we had
18 identified it earlier.

19 Q. Okay. I think I understand.

20 Go on to task No. 2.

21 A. Task No. 2 states,

22 "Review the, cap P, Phase 1, cap
23 S, Stipulation to develop an
24 understanding of the requirements for,
25 cap P, Phase 1 that are stated

1 therein."

2 That is a task that I identified sometime
3 after March 9th. I don't know exactly when, but in
4 my review of all the information, I realized that it
5 was important to have a task that reviewed that and
6 developed an understanding for Phase 1 so that I
7 could address Phase 1 issues.

8 Q. Did you participate at all in the
9 development of that stipulation?

10 A. No.

11 Q. You weren't consulted with respect to the
12 language of it before it was finalized?

13 A. I think that is what that means. I didn't
14 participate at all.

15 Q. I think that is what it means, too, but
16 you'll understand that I want to clarify that.

17 A. Yes.

18 Q. Just to be clear, then, you never saw any
19 earlier drafts of the Phase 1 stipulation?

20 A. Earlier than what?

21 Q. Than the final.

22 A. I don't know what you mean by "final."

23 Q. Well, there is one that was submitted to the
24 Court that you referred to as being part of the
25 status report of Bolthouse Farms. There were -- take

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1 my word for it -- numerous earlier drafts, and I am
2 asking if you saw any of those?

3 MR. JOYCE: On the assumption that there
4 were earlier numerous drafts, he wants to know if you
5 saw any of them.

6 I know there were, but the import is I don't
7 even know if he knows whether it was a one-time deal
8 or multiple-time deals.

9 MR. ZIMMER: I don't think he saw any of
10 them, if that helps.

11 MR. BUNN: Yes, that answers it.

12 THE WITNESS: I would refer you to Page 3 of
13 Exhibit A which lists the only two documents that I
14 have seen that refer to the Phase 1 stipulation.

15 Without knowing what you are asking about, I
16 can tell you that that's all I have reviewed with
17 regard to the Phase 1 stipulation.

18 BY MR. BUNN:

19 Q. Those being the two status conference
20 reports on that page?

21 A. Yes; that's correct.

22 Q. On what did you base your conclusion --
23 forgive me if I already asked this -- that that was a
24 task that should be included?

25 A. I think I did describe that.

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1 I wouldn't characterize it as a conclusion.
2 In addressing Phase 1 issues, I believed that it was
3 important to develop an understanding of the Phase 1
4 stipulation. Otherwise it would be more difficult to
5 identify Phase 1 issues.

6 Q. "Why" is my question.

7 A. Because I believe it explains what the
8 purpose of Phase 1 is, and that it explains the
9 requirements of Phase 1.

10 Q. The two status conference reports that you
11 saw that have that stipulation in them, from whom did
12 you get them?

13 A. I received one from Mr. Zimmer, and I
14 believe I received one from Mr. Joyce.

15 Q. And did either of them explain what that
16 stipulation was?

17 MR. ZIMMER: Explain beyond the terms of the
18 stipulation? It's vague.

19 MR. BUNN: Either way.

20 BY MR. BUNN:

21 Q. Was anything said orally or in writing about
22 the stipulations?

23 A. One thing I was told, that there was such a
24 stipulation; that the parties had gotten together and
25 had stipulated a Phase 1 stipulation. There was, as

1 described in the text, generally speaking, of those
2 two documents.

3 I believe Mr. Zimmer indicated that there
4 was -- perhaps I would call it a typo, but something
5 like a typo in the first one, and he believed that
6 the more recent-dated one was more correct in terms
7 of the wording. And I saw very little difference
8 between the two.

9 I think other than that, no.

10 Q. Were you told anything about what the
11 stipulation was intended to accomplish other than
12 from just reading the stipulation?

13 A. I think not. I think the stipulation speaks
14 for itself. And it may have been characterized by
15 either Mr. Zimmer or Mr. Joyce as shorthand for what
16 it says. But I don't think I was told what it means,
17 other than what it says.

18 Q. Let's skip down to Task No. 5 for a minute.

19 "Define boundary of an area that
20 meets the requirements of the Phase 1
21 Stipulation using the method selected
22 as part of Task No. 3."

23 Did someone tell you to do that?

24 A. It was my understanding that the
25 requirements of the Phase 1 stipulation were to

1 define an area as described in the Phase 1
2 stipulation. In order to meet the requirements of
3 the Phase 1 stipulation, therefore, from my
4 perspective as a scientist, it meant that I needed to
5 define such an area.

6 Q. How did you come by that understanding?

7 A. By reading the text in those two Phase 1
8 stipulation documents.

9 Q. Was there anything else that brought you to
10 that understanding?

11 MR. ZIMMER: Vague as to "anything else."

12 MR. BUNN: I'm sorry? As to -- vague as to
13 what?

14 MR. ZIMMER: Vague as to "anything else."

15 THE WITNESS: Well, I described my task to
16 Mr. Zimmer, and he concurred that those were fine; he
17 had no specific objection to the task. So that
18 encouraged me along that line.

19 So to that extent there was something else,
20 but I don't know what other -- what else -- what else
21 "anything else" might mean.

22 BY MR. BUNN:

23 Q. What you are saying is you reached Task
24 No. 5 based only on reading and reviewing the
25 stipulation, but you subsequently discussed that with

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1 Mr. Zimmer and he said "Yes, that's right, that's
2 what I want you to do."

3 Is that a fair summary?

4 A. I think not.

5 I liked my statement better. I would be
6 happy to have it read back rather than for me to try
7 to restate it the same way. I don't think your
8 characterization was exactly right.

9 Q. All I am trying to get to is what you relied
10 on in coming up with this task. And you said that
11 you relied on reading the stipulation itself.

12 Is there anything else?

13 MR. ZIMMER: That is vague as to "anything
14 else." Are you talking about his scientific
15 knowledge in terms of how to approach an issue, how
16 to approach this kind of an issue, or are you talking
17 about conversations with people? Are you talking
18 about things he has done in the past? I don't know
19 what you mean by "anything else."

20 THE WITNESS: I also don't know what you
21 mean in this case by "relied on."

22 In forming opinions, I rely on certain
23 things. This was not such an instance; this was a
24 matter of identifying some tasks that would allow me
25 to address the Phase 1 issues.

1 So you are characterizing it as something
2 which I needed something else to rely upon; I don't
3 understand what you mean by that.

4 BY MR. BUNN:

5 Q. All I am trying to get into is what went
6 into that identification of the task. Do you not
7 understand that question?

8 A. Absolutely. I understood that, and I
9 believe I answered it. Let me just make it very
10 clear.

11 Q. Could you try again.

12 A. As I understand the Phase 1 stipulation, it
13 calls for an area to be defined. In order to meet
14 the requirements of the Phase 1 stipulation,
15 therefore, an area does need to be defined. And
16 therefore, I included it as Task No. 5, a task that
17 says, "Define boundary of an area that meets the
18 requirements of the Phase 1 stipulation."

19 And then I caveated that -- we haven't
20 discussed it yet, but using the method selected as
21 part of Task 3.

22 So I did that specifically for the purpose
23 of meeting the requirements of the Phase 1
24 stipulation as required by the Phase 1 stipulation.

25 Q. Okay. Now, I skipped over three and four.

1 What went into identifying Task No. 3?

2 A. Task No. 3 was fairly involved in that I
3 considered a wide variety of different techniques,
4 scientifically based, and other appropriate
5 techniques that might apply. I considered some in
6 greater detail than others.

7 And when I say "considered them," I'm saying
8 I thought about them. I cogitated on them. I
9 considered them in discussions, perhaps with
10 Dr. Gorelick and perhaps with my staff, and talked
11 about those.

12 I'm sorry; maybe I am not answering the
13 question.

14 Q. Keep going. You are doing fine.

15 A. Are you asking me how I identified that task
16 or are you asking me what I did as part of the task?
17 I may have gotten confused.

18 Q. I was asking you how you identified the
19 task.

20 A. Then I was not answering that question. I'm
21 sorry.

22 I identified the task based on my
23 understanding that the Phase 1 stipulation required
24 definition of an area. And that needed to be done.
25 And in order to define the area, I needed to apply

1 one or more methods. I'm a scientist, so I wanted to
2 address it from a scientific perspective.

3 I realize that not all methods can be
4 strictly scientific, and so I identified this task to
5 include scientifically based or other appropriate
6 methods that would allow me to define the boundary of
7 an area that meets the Phase 1 requirements.

8 So that is how I identified the task.

9 Q. And Task 4, how did you identify that?

10 A. I believe that was a task that was suggested
11 from my discussions with Mr. Zimmer. After reviewing
12 the Luhdorff and Scalmanini report, a question that
13 came up was, "Do any of the lines shown on that
14 report meet the requirements of the Phase 1
15 stipulation?" And in order to answer that question,
16 I identified Task No. 4.

17 Q. So you are saying that Mr. Zimmer asked you
18 that question?

19 A. I am not saying it in that many words. It
20 came as a result of discussions with Mr. Zimmer. He
21 wanted to know what I thought about that. He wanted
22 to know my opinion as to whether or not it did. So I
23 identified that as a task. I'm not sure that he
24 specifically asked me.

25 He certainly did not give me these words,

1 but these are the words that I wrote in describing
2 the task that I felt would meet what I understood
3 that he wanted from me in the way of an assessment in
4 order to form an opinion.

5 Q. From your description of these five tasks,
6 it appears to me that the meat of it, the place where
7 your talents really went into play, is in Task No. 3
8 where you selected the method to be used.

9 MR. ZIMMER: That is argumentative.

10 BY MR. BUNN:

11 Q. Is that accurate?

12 MR. ZIMMER: Argumentative, vague, compound.

13 BY MR. BUNN:

14 Q. But is it accurate?

15 MR. ZIMMER: I don't know.

16 THE WITNESS: By "meat of it," are you now
17 referring back to our discussions about how many
18 hours I spent on what aspects or how hard I thought
19 about something or what was the most straightforward,
20 or are you asking me which of these best fits into my
21 40 years of experience? I don't really understand
22 what you mean by "the meat."

23 BY MR. BUNN:

24 Q. I think all of those questions are
25 appropriate.

1 On which of these tasks did you spend the
2 most time?

3 A. I would have to say Task No. 5, because Task
4 No. 5 includes preparing the report that I prepared,
5 and I spent a lot of time in preparing that document.

6 Task No. 5 also includes the time of other
7 people that I have described before, such as
8 Mr. Edwards, in defining the specific watershed
9 boundaries. Those things are time-consuming. I
10 would have to say most of the time spent by me and my
11 staff were on Task No. 5.

12 Q. I'm going to go a little out of order here
13 and follow up on something you said before with
14 respect to Task No. 3.

15 You said that you considered a number of
16 methods before coming up with the one that you
17 selected. Is that accurate?

18 A. I considered -- I may have said it that way.
19 And maybe, to be more clear, I considered a number of
20 approaches to selecting methods. A number of
21 scientific approaches, a number of concepts.

22 I didn't mean that to be that I had a group
23 of specific methods that I chose among. This was a
24 matter of developing a method and developing and
25 selecting the method after I had developed the

1 method. I considered other concepts. Other ways of
2 looking at it.

3 Q. Let's start with the one that you actually
4 used. You distinguish between the method and the
5 approach.

6 What approach did you use in the actual
7 report to selecting the method?

8 A. No. You misunderstood me.

9 Q. Okay.

10 A. I believe you have.

11 The selection of a method involved looking
12 at various concepts, finding concepts that would fit
13 together that could be developed into a method;
14 possibly fitting other concepts together to develop
15 other possible methods, and deciding which methods
16 that I developed might benefit me in defining a
17 boundary. It is kind of a continuum of thought.

18 When I looked at all of those together, the
19 methods that I have selected in here are the methods
20 that came out of that that I did finally select.

21 Now, we are not talking about identifying
22 Task No. 3; we are talking about what I did under
23 Task No. 3.

24 Q. Yes. That is what I meant when I said we
25 are going a little out of order.

1 A. Yes, that's fine.

2 I don't have a -- I don't have a bag of
3 methods that I can reach in and look at. That is, a
4 scientific approach is to look at ways to deal with
5 the problem and see which ones appear to work and
6 therefore could be selected, and which ones could
7 not.

8 Q. Could you describe for me in rough
9 chronological fashion the thought process that you
10 went through and the approaches that you considered
11 along the way?

12 MR. ZIMMER: What issue? Vague. Otherwise
13 we could be here all night.

14 MR. BUNN: We may well be.

15 THE WITNESS: Not in chronological fashion,
16 no, because as I say, it is kind of a continuum. I
17 can't start with one and look at that and put it
18 aside and start with the next one. I can't do it in
19 a chronological fashion.

20 I could describe in general my thought
21 processes, if you will, in going through that, if
22 that's what you are asking.

23 BY MR. BUNN:

24 Q. Yes.

25 A. I considered, for the scientifically based

1 methods, methods that involved techniques that were
2 objective more than subjective; methods that had been
3 previously used in the science of hydrogeology that
4 were well-defined methods that would not be
5 ambiguous, and methods that could work towards
6 developing a boundary of an area.

7 I had already mentioned to you earlier today
8 that in a case like this and many other cases, one of
9 the early things I look at in order get an
10 understanding of the overall hydrogeology is a
11 watershed boundary. So I certainly looked at
12 watershed boundaries early on.

13 I realized that there were watershed
14 boundaries that overlay some aspects of the geology
15 which could be characterized in such a way to help
16 define methods to answer these questions, so I
17 pursued looking at the geologic and hydrogeologic
18 aspects of the materials in the area.

19 I looked at this combination of the
20 hydrogeologic and watershed boundary aspects, and out
21 of that kind of thought process, I developed a method
22 of defining a line based on watershed boundaries and
23 the underlying geologic materials that would allow me
24 to define a portion of the basin boundary.

25 It was that kind of process.

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1 Q. Did you consider any other ways of doing it?

2 A. I'm sure I considered everything that
3 occurred to me. This seemed to be the appropriate
4 way. And so in evaluating it out of the continuum of
5 thought came this method that I was very comfortable
6 with.

7 Q. As you look at it today, are there
8 alternative ways that you could approach this task
9 that would be equally valid?

10 MR. ZIMMER: Which task? It is vague.

11 MR. BUNN: Task 3.

12 THE WITNESS: I could speculate on other
13 methods. There are approaches, but I'm telling you
14 the approach that I followed.

15 BY MR. BUNN:

16 Q. So if someone else took a different approach
17 to the same task, you would say that was not valid?

18 MR. ZIMMER: That calls for speculation as
19 to what the other task would be.

20 THE WITNESS: I'd have to review that
21 approach and make a judgment as to whether or not
22 that approach was valid. I can't say arbitrarily one
23 way or the other without knowing.

24 BY MR. BUNN:

25 Q. In fact, you did that with respect to

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1 Mr. Scalmanini's approach; is that correct?

2 MR. ZIMMER: Assumes Mr. Scalmanini's
3 approach was the same.

4 MR. BUNN: As what is?

5 MR. ZIMMER: Had the same goal in mind.

6 MR. BUNN: I didn't intend to assume that.

7 BY MR. BUNN:

8 Q. Did you review Mr. Scalmanini's approach --
9 well, never mind that. That question doesn't make
10 sense.

11 Along the way in selecting your method, were
12 there any alternatives that you seriously considered?

13 MR. ZIMMER: Vague as to "alternatives."
14 For what?

15 MR. BUNN: Alternative methods to come up
16 with as part of Task No. 3.

17 MR. ZIMMER: As to what aspect of it? He
18 told you he has a continuum of thought, I think is
19 the way he described it, trying to come up with a
20 scientific manner for doing this, and he came up with
21 this method.

22 MR. BUNN: And I'm asking if during that
23 continuum of thought, he also came up with
24 alternative methods.

25 THE WITNESS: Let me see if I can respond

1 this way.

2 In looking at the methodology, as I
3 mentioned, one of my goals was to select a method
4 that was objective rather than subjective. So
5 therefore, other things that can be done, other
6 ideas, other concepts such as has been done in
7 perhaps some instances of selecting a topographic
8 contour and using that contour as a line.

9 While that is a very specific, definable
10 line on a map, it doesn't meet any of the other
11 objectives that we are looking at. It has nothing to
12 do with the water system. In some cases it may be in
13 the mountains, and some case it may be in the
14 valleys. So I didn't --

15 Don't get me wrong; I am not suggesting that
16 that was a method that I pulled out of my bag and
17 said, "I need to evaluate this." But certainly,
18 contours are used frequently in various projects for
19 defining an area of mountains.

20 Pick the 28 contour and draw a line around
21 it because we know where it is. It means one
22 objective which has a very definable line. It
23 doesn't meet other objectives.

24 I looked at contours in dealing with this.
25 I considered contours. I never did consider using a

1 contour as the Phase 1 area boundary, but I certainly
2 looked at contour. In that regard, I looked at a
3 wide variety of things. But that is all a part of
4 what I am calling this continuum of thought.

5 BY MR. BUNN:

6 Q. Just real quickly on the contours, are the
7 contours you are talking about, topographic contours?

8 A. That is what I am referring to now.

9 Q. Not groundwater contours?

10 A. We haven't discussed groundwater contours,
11 and before we do, I would like to know what you mean
12 by "groundwater contours."

13 Q. You are a careful man, Mr. Sheahan.

14 In your discussion of topographic contours,
15 you said although that would be -- I'm paraphrasing
16 here, and if I'm inaccurate, tell me -- although that
17 could be objective in the sense that you would define
18 it very precisely, nevertheless it did not meet the
19 objectives of what you were trying to do; is that
20 correct?

21 MR. ZIMMER: Vague as to what you are trying
22 to do. He said a number of objectives providing the
23 Phase 1 boundary.

24 MR. BUNN: Okay.

25 THE WITNESS: It wouldn't in my mind meet

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1 the requirements of Phase 1 -- of the Phase 1
2 stipulation.

3 BY MR. BUNN:

4 Q. Okay. That is what I wanted to know.

5 In your report, Page 2, you state that the
6 documents you've reviewed for the purposes of
7 addressing the tasks are listed in Exhibit A to the
8 letter. And I thank you for being so explicit about
9 what you reviewed. And later on, you are explicit
10 about what you relied on, and I appreciate your
11 making that distinction.

12 But I just want to tie down that, in fact,
13 the only documents you reviewed are the ones that are
14 listed in the references; is that correct?

15 MR. ZIMMER: That misstates his testimony.
16 I think he said there was a deposition that he looked
17 at that he didn't have until after he prepared the
18 report.

19 MR. BUNN: Yes, he did.

20 BY MR. BUNN:

21 Q. With that exception.

22 A. And the other aspect that I mentioned, there
23 are other documents -- for example, correspondence
24 that I have, correspondence that are not technical
25 documents that I have in my files -- that are not

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1 listed as references.

2 I certainly reviewed a letter that came in;
3 if it had no technical basis that would lend itself
4 to this issue, I did not list it in Exhibit A,
5 although it may be in our file.

6 Q. These are the only technical documents you
7 looked at?

8 A. Yes.

9 Q. And these are the only court documents that
10 you looked at, as well; right?

11 A. I'll have to let you either define "court
12 documents" or simply say -- I've given you my file
13 index and I have given you a list of references. It
14 has everything that I have reviewed. How you
15 characterize it, as a court document or not, I don't
16 know.

17 Q. Okay. The point I am getting to is, if you
18 have reviewed it, it is either in this list or in
19 your file, and therefore in your file index?

20 A. Yes, that's right.

21 Q. All right.

22 A. I am thinking in particular about the Mojave
23 basin area adjudication. That is one of my
24 references; we haven't discussed that yet. I don't
25 know if you mean that to be a court document or not a

1 court document. I don't know how you mean that.

2 But yes, everything that I have reviewed in
3 connection with this matter is listed; every
4 technical document that I have reviewed in connection
5 with this matter is referenced, mentioned in my
6 reference list, with -- with the one exception that
7 Mr. Zimmer just reminded us that is the deposition
8 transcript from Mr. Whitley.

9 Q. And then later on, on the top of Page 3, you
10 say,

11 "The documents that I have relied
12 upon are shown in footnotes to this
13 letter report."

14 I assume again that that was intentional on
15 your part, knowing that we lawyers need to know what
16 you are relying on.

17 Let me just ask you if, in fact, everything
18 you relied on is in a footnote somewhere?

19 MR. ZIMMER: That misstates the report,
20 because the sentence after that says, "I've also
21 relied upon my professional experience, et cetera."

22 MR. BUNN: I meant to say "every document."

23 THE WITNESS: I think that is a fair
24 statement, yes. I don't mean to limit myself, and it
25 is certainly possible that a concept that came out of

1 one of the documents that I reviewed that I haven't
2 referred to, was in my mind when I was addressing
3 some of these issues.

4 BY MR. BUNN:

5 Q. Of course.

6 A. I don't mean to limit it to leave that out.

7 Q. I am not trying to trap you in that respect.

8 But I'm entitled to know everything on which you
9 relied in basing your opinion. I think you made it
10 very easy for me by stating that in that report. I
11 just want to confirm that that's accurate.

12 That as far as you can identify today,
13 everything that you relied upon is listed in a
14 footnote?

15 A. Yes.

16 Q. Every document?

17 A. With the understanding that reviewing those
18 documents, my experience broadened. Then having that
19 broadened experience from having reviewed all of
20 those documents, I addressed the specific tasks, and
21 I identified those specific documents upon which I
22 was relying in addressing those tasks.

23 That is the reason I mentioned that I also
24 relied upon my professional experience in reviewing
25 the technical and other information in making my

1 assessment of my opinions. I want to make sure we
2 not excluding that.

3 Q. No, I am not excluding that.

4 A. I tried to be as compliant and
5 straightforward with you as possible.

6 Q. I do appreciate that. It does make the
7 deposition somewhat more efficient.

8 Would you describe the personal inspections
9 that you made that are referred to at the bottom of
10 Page 2 and the top of Page 3.

11 A. I had occasion to drive through that area
12 four different times from when I was first contacted
13 by Mr. Zimmer's firm, and during those drive-throughs
14 I stopped at various places. I looked around. I
15 paid particular attention to the geological and
16 physiographic conditions in the area as part of
17 this -- in the process of addressing these issues.

18 So it was that kind of personal inspection.

19 Q. Did you have a specific purpose in making
20 any of those inspections?

21 A. Well, I think the purpose I just described.
22 I would say it was in order to look at the
23 physiographic and geologic conditions with regard to
24 the matter that I was considering.

25 Q. Okay. But you didn't attempt to make a

1 systematic investigation of that, did you?

2 MR. ZIMMER: Vague as to "systematic."

3 THE WITNESS: It was systematic in that I
4 went to those places that I wanted to look at, but I
5 was not systematic in that I didn't divide it into a
6 series of grids and look at each individual grid. I
7 should say, I guess, I don't know what you mean.

8 BY MR. BUNN:

9 Q. You didn't, for example, drive around the
10 perimeter of the Antelope Valley, or did you?

11 A. Well, I drove a portion of the perimeter of
12 the Antelope Valley. I didn't necessarily drive the
13 entire perimeter of it, but that was certainly within
14 my personal inspections.

15 If I may, I made sure that I took
16 Highway 138 through Palmdale and over, and I took
17 Highway 14 north up to Mojave. I went further
18 northeast. I can't remember; I think it is Highway
19 14, or a little ways into the Fremont Valley.

20 I drove Highway 58 back and forth. I drove
21 Highway 395. I looked at off of the main roads in
22 some instances. I would stop and drive in one
23 direction in order to look at some things.

24 It was that kind of an inspection.

25 Q. Specifically when you went off the main

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1 roads, can you tell us what you did -- what you did?

2 A. I can perhaps give you an example or two.

3 MR. ZIMMER: You mean other than for
4 personal reasons?

5 THE WITNESS: I recall in the Quartz Hill
6 area getting off of Highway 14 and driving to the
7 west. I can't recall what street I was on, but I
8 went over there to get a different perspective.

9 I recall two different occasion taking the
10 two different routes from Highway 138 to Highway 14,
11 the southern route and the northern route, to look at
12 that area just because it was convenient.

13 I recall pulling off -- not very far off,
14 but pulling off to look at the area where the Leona
15 Valley comes into the Antelope Valley.

16 BY MR. BUNN:

17 Q. What did you do there?

18 A. I stopped and looked, observed.

19 The other one that I recall, only because it
20 interested me, was I stopped along Highway 58 at one
21 point to look down to see if I could identify the
22 physiographic feature that I saw on a U.S. Geological
23 Surveys gray scale map that was curious to me. And I
24 determined that it was an elevated railroad track
25 running through there.

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1 Those kinds of things.

2 (Recess.)

3 BY MR. BUNN:

4 Q. Your Task 1 was to review and critique the
5 L&S technical memoranda. And one thing you say at
6 the beginning is that the document doesn't state
7 professional opinions, per se.

8 What do you mean by that?

9 A. Well, I believe what I was saying there and
10 what my recollection is now, is that nowhere in that
11 document did it state, "Here are my professional
12 opinions," as I have in my document.

13 Q. So it may have stated some of his opinions,
14 but they weren't labeled as such; is that right?

15 MR. ZIMMER: That is argumentative and
16 speculative.

17 THE WITNESS: I wasn't able, in reading the
18 document, to identify anything that I could point to
19 and say that that is an opinion.

20 BY MR. BUNN:

21 Q. All right. Then down here later on, you
22 say,

23 "In general, it appears that the
24 purpose of the document was to present
25 information concerning 'groundwater

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1 basin boundaries' in the Antelope
2 Valley vicinity based solely upon the
3 work by others."

4 MR. ZIMMER: For reference to the record,
5 where are you reading from?

6 MR. BUNN: Bottom of Page 3 and top of
7 Page 4.

8 BY MR. BUNN:

9 Q. I'm going to ask you during the next series
10 of questions to assume that that was the purpose of
11 the document. Okay?

12 A. All right. I'll try to do that.

13 Q. Let me first ask you generally, did the
14 document accomplish that purpose?

15 MR. ZIMMER: What purpose? It is
16 speculative.

17 MR. BUNN: The one that I just read.

18 MR. ZIMMER: You are asking --

19 MR. BUNN: Stay with me here. I'm asking
20 him to assume that his tentative conclusion that I
21 read is, in fact, the purpose of the document, and
22 I'm making that assumption, did the document
23 accomplish that purpose.

24 MR. ZIMMER: It is vague and incomplete.

25 THE WITNESS: When you read from my

1 document, you didn't include the fact that I put in
2 quotes the term "groundwater basin boundaries." And
3 you didn't go on and read the rest of that paragraph
4 that identifies the fact that "the L&S technical
5 memorandum notes, that in practice the term," in
6 italics, "groundwater basin," close italics, "is
7 loosely defined."

8 So when you asked me to assume what is
9 stated within this previous sentence that you
10 wrote --

11 MR. BRUYNEEL: Actually, he read it. You
12 misspoke yourself. He read it; you wrote it.

13 THE WITNESS: The point I am making, you've
14 taken something out of context and asked me to assume
15 that as if it has a complete meaning. And by itself,
16 it doesn't have a complete meaning, so I'm having a
17 lot of problems assuming something that I don't
18 understand the full meaning of.

19 BY MR. BUNN:

20 Q. I didn't intentionally take it out of
21 context. Would you feel more comfortable if I ask
22 you to assume that everything from that sentence to
23 the end of the paragraph was true?

24 MR. ZIMMER: That's vague. What do you
25 mean, assume it's true? Calls for speculation.

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1 MR. BUNN: I understand that lawyers
2 sometimes feel that truth calls for speculation,
3 but --

4 MR. ZIMMER: You are asking him to speculate
5 about what somebody else assumed and what they meant,
6 wherein you have terms that are not clearly defined.

7 MR. BUNN: He came to a tentative conclusion
8 about what the purpose of the document was. And
9 rather than have him preface every answer with "it
10 depends on what the purpose of the document was," I'm
11 trying to get a reference point on which to start.
12 And Mr. Bruyneel is going to help me.

13 BY MR. BUNN:

14 Q. So I'm asking you to assume that his
15 conclusion about the purpose of the document,
16 tentative conclusion, is correct for purposes of
17 answering the questions.

18 MR. ZIMMER: You are asking Mr. Sheahan to
19 assume that Mr. Sheahan's conclusion that it appears
20 the purpose was to present information concerning
21 groundwater basin boundaries, in quotes?

22 MR. BUNN: Yes. Assume that he got it right
23 when he said that.

24 MR. ZIMMER: Okay. Then what is the
25 question?

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1 BY MR. BUNN:

2 Q. Did the document accomplish that purpose?

3 A. Well, I'm sorry --

4 MR. ZIMMER: Purpose? Vague as to what
5 purpose.

6 THE WITNESS: I was going to say I'm sorry
7 to continue to pursue this.

8 But the reason I wanted to draw your
9 attention to the rest of that paragraph is that there
10 is the word "however" in there, and what I am saying
11 is, although it appears that there was a purpose, and
12 I used in quotations the groundwater boundary on
13 purpose, the second sentence, the sentence following
14 that, notes that "groundwater basin" is not
15 well-defined.

16 So what I am trying to explain here is that
17 if that is the purpose, it is not a well-defined
18 purpose. And so if you ask me to assume for that the
19 purpose is not well-defined, then perhaps I could go
20 forward.

21 But I can't go forward and assume that there
22 is some stated, clear purpose, because the whole
23 reason for my describing it this way was to explain
24 that there is no clear purpose, even if we assume
25 that first sentence, because "groundwater basin

1 boundaries" is not a well-defined term.

2 BY MR. BUNN:

3 Q. Well, Mr. Sheahan, I understand that is your
4 position. That has been the theme throughout the
5 deposition today, and I at least picked that much of
6 it up. And I am not trying to sweep that under the
7 rug.

8 I understand that you believe it is
9 difficult to come up with groundwater basin
10 boundaries because that is not a well-defined term.
11 Again, I'm not trying to get away from that. That's
12 fine. That is the context in what you are telling
13 me.

14 A. That is not correctly characterizing what
15 I'm telling you. What I am telling you is that
16 Mr. Scalmanini is saying in his report that they are
17 not well-defined.

18 So if that is his purpose, he has come
19 forward in his document, assuming this is his
20 document although it is not signed, and it said
21 "groundwater basin" is loosely defined.

22 So if that is his purpose, then the purpose
23 is a very loosely defined purpose. And I find it
24 very difficult to assume a loosely defined purpose to
25 determine whether or not he met that purpose.

1 Q. Well, it is your position too that the term
2 "groundwater basin" is loosely defined.

3 A. Those weren't my words, but that's generally
4 true, yes. I've indicated that for specific purposes
5 it might be different.

6 Q. Let's change the hypothetical a little bit.
7 Let's assume that the purpose of the document was to
8 identify and define the groundwater basin in which
9 plaintiff's wells were located.

10 And I am not asking you about Scalmanini's
11 conclusion now; I'm asking about yours.

12 Is it your conclusion that that objective is
13 meaningful?

14 MR. ZIMMER: If that was a hypothetical, it
15 is vague and incomplete, calls for speculation.

16 THE WITNESS: Before I could answer that, I
17 would have to understand what you mean by
18 "groundwater basin."

19 BY MR. BUNN:

20 Q. Is it your position, then, that an expert
21 asked to define the groundwater basin in which the
22 plaintiffs's wells were located, could not do so
23 without getting further information?

24 MR. ZIMMER: Read that back.

25 (The previous question was read back

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1 by the court reporter as follows:

2 "QUESTION: Is it your position,
3 then, that an expert asked to define
4 the groundwater basin in which the
5 plaintiffs's wells were located, could
6 not do so without getting further
7 information?")

8 MR. ZIMMER: Calls for speculation.

9 THE WITNESS: Either that or without making
10 certain assumptions.

11 BY MR. BUNN:

12 Q. What assumptions could be made to clarify
13 the question?

14 MR. ZIMMER: Vague and overbroad.

15 THE WITNESS: I can't really answer that.
16 It would depend on the specific purpose. I made that
17 clear earlier.

18 Given a specific purpose, an expert with the
19 right expertise could perhaps do what you asked and
20 perhaps define something, call it a "groundwater
21 basin." But with only the information that we have
22 here, I can't even identify all the assumptions that
23 would be necessary.

24 BY MR. BUNN:

25 Q. Okay. Suppose, then, that the purpose were

1 given to this expert as defining "groundwater basin"
2 in order to determine the groundwater rights of the
3 parties. Could he do it then?

4 MR. ZIMMER: Do what? It is vague. Assumes
5 a fact not in evidence, that that is what is done.
6 It is mainly vague as to "do what."

7 BY MR. BUNN:

8 Q. Do you want me to repeat the question?

9 A. I think I have the question in mind.

10 I think it also assumes that it would be
11 appropriate to define a groundwater basin for the
12 purpose of addressing water rights. I don't want,
13 you know -- that is not -- certainly not an opinion
14 that I have. To me, it is no different than saying,
15 "Define the county lines within the area where the
16 wells are located." It may be possible to do it, but
17 it is not necessarily appropriate. It has no
18 meaning.

19 Q. I see. Are you telling me, then, that it
20 has no meaning -- that the boundaries of the
21 groundwater basin have no meaning in terms of the
22 groundwater rights dispute?

23 MR. ZIMMER: It is vague as to "dispute."

24 BY MR. BUNN:

25 Q. Are you telling me that?

1 MR. ZIMMER: Vague as to what kind of
2 dispute, vague on what you mean by "groundwater
3 rights."

4 THE WITNESS: I was nodding my head only
5 because I recognize once again that we are dealing
6 with the word "groundwater basin" without having
7 defined it. I am sorry. Unless we come up with a
8 definition of "groundwater basin," a specific
9 definition, I can't answer a question like that.

10 BY MR. BUNN:

11 Q. Has anyone in this case given you a
12 definition of groundwater basin to use?

13 A. I don't know what you mean by "to use."
14 There is a definition of groundwater basin in the L&S
15 technical memorandum. Is that what you mean?

16 Q. No. I mean in the discussions that you have
17 had prior to coming up with your report, your verbal
18 discussions, and correspondence but not including
19 what you call a technical material, did anyone tell
20 you what was meant by "groundwater basin" in this
21 case?

22 A. No.

23 Q. Have you had any experience or training in
24 the area of groundwater rights?

25 MR. ZIMMER: Vague what is meant by

1 "groundwater rights." May be asked and answered.

2 THE WITNESS: I think I explained earlier
3 that I have -- as part of my reading, I have read
4 about water rights in various documents for a number
5 of years. I consider that to be training. It
6 broadens my understanding of water rights. I have
7 not had a specific, formalized course in water
8 rights.

9 BY MR. BUNN:

10 Q. Do you feel that you have an understanding
11 of California law of groundwater rights?

12 MR. ZIMMER: It is beyond the scope of what
13 he has been retained for.

14 THE WITNESS: I don't offer myself as an
15 expert in water rights --

16 BY MR. BUNN:

17 Q. That wasn't what I asked.

18 A. Let me finish.

19 -- so any understanding that I would have
20 would be no different than any other layperson.

21 Q. Given that caveat, do you feel that you have
22 an understanding of California water law --
23 groundwater rights law?

24 MR. ZIMMER: The same objection. Also
25 vague.

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1 THE WITNESS: Yes. I do. I will
2 characterize it, my understanding is limited and
3 incomplete.

4 BY MR. BUNN:

5 Q. Have you read any of the groundwater cases?

6 A. I have read some cases that deal with
7 groundwater, yes.

8 Q. Can you recall which cases?

9 A. Not specifically. I've read some. I've
10 read part of some, let me put it this way.

11 Q. Have you read the Mojave decision?

12 A. I've read most of the Mojave judgment.

13 Q. I'm talking about the Supreme Court
14 decision.

15 A. The Supreme Court decision, I've read most
16 of that.

17 Q. Have you read the Supreme Court decision in
18 the San Fernando Valley -- Los Angeles versus San
19 Fernando Valley?

20 MR. ZIMMER: What is the relevance, Counsel?
21 Hold on a second. What is the relevance?

22 MR. BUNN: I am trying to get the scope of
23 his understanding of water rights law because I
24 believe that that understanding bears on his
25 interpretation of the stipulation on which he

1 testified that he based his tasks here.

2 MR. JOYCE: He told you his interpretation
3 was viewed towards developing a scientific approach,
4 not a legal approach, one.

5 Two is that any legal opinion is not the
6 proper subject matter of expert testimony and/or
7 expert opinion anyway, and this line of questioning
8 and inquiry is somewhat irrelevant because he told
9 you he has not been retained for that purpose,
10 despite the fact that he happens to hold a law
11 degree.

12 MR. BUNN: Okay.

13 BY MR. BUNN:

14 Q. Have you read that opinion?

15 MR. ZIMMER: Don't answer that.

16 We have expressed today several times that
17 we've offered this witness up, offered to start this
18 deposition early. I moved an appointment to make
19 time for this evening.

20 I told you there is not enough time to
21 reschedule this for the trial date in this matter,
22 and I don't want to spend time discussing irrelevant
23 matters that have absolutely no bearing on his
24 testimony as a scientific expert.

25 MR. BUNN: I can appreciate that you want to

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1 get done. So do I. But I don't think we scheduled
2 this deposition in accordance with your schedule and
3 your expert. It was never represented to you that it
4 would be completed in a day or less.

5 And I don't think you can tell me that you
6 are going to cut short the deposition, and therefore
7 I can't inquire into areas that I want to inquire
8 into.

9 MR. JOYCE: We are not talking about cutting
10 the deposition short. We are telling you since you
11 are starting to make an inquiry into an area that has
12 no relevancy because it is not legally admissible.

13 You are asking him to opine, or at least you
14 are asking base information that would form the
15 foundation for asking him to opine, on legal issues
16 which he is not qualified to do, which the Court
17 cannot accept, and which you cannot elicit in front
18 of the Court because legal opinions are not the
19 proper subject matter of expert testimony. Beginning
20 and end.

21 MS. FUENTES: If Mr. Bunn never asks him
22 what his legal opinion is, why can't he go down this
23 line of inquiry? He can ask all the foundational
24 questions he wants.

25 MR. JOYCE: He cannot ask foundational

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1 questions about an area of training and expertise
2 that the witness is not being proffered to provide an
3 opinion in and/or more significant in this area which
4 he would be precluded as a matter of law from
5 offering up at trial anyway.

6 Whether he is a licensed lawyer or whether
7 he read the Mojave decision is wholly irrelevant,
8 because as a licensed lawyer or having read the
9 Mojave decision, his opinions as to the effects of
10 that opinion of water rights is irrelevant. He can't
11 testify to that.

12 MS. FUENTES: Mr. Bunn has not asked him
13 that question.

14 MR. JOYCE: Of course he has. He is asking
15 foundational questions. What is the relevancy of the
16 foundational questions if the ultimate opinion
17 question can't be asked anyway? That is my point.
18 It's a waste of time because the foundation is of no
19 value, because it can't be --

20 MS. FUENTES: Mr. Bunn said that is not his
21 goal. His goal is completely different, so for that
22 reason he can ask.

23 MR. BUNN: Rather than argue now, I'll say I
24 disagree with your characterization, and I am going
25 to go ahead and ask the question.

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1 MR. JOYCE: It is certainly your time to
2 waste. I am not telling him not to answer the
3 question; I am telling him it is irrelevant.

4 I am making the record clear that it is
5 foundational records that may support an inquiry of
6 someone. If you are trying to elicit a legal
7 opinion, the legal opinion is in the advice of the
8 Court.

9 MR. BRUYNEEL: Let me interject, if you
10 don't mind, Mr. Bunn. I have not had a chance,
11 because of whenever it was served, to thoroughly
12 review it and digest this report, which is dated
13 with, I believe, yesterday's date, July 16.

14 But he does purport to analyze legal issues
15 in this report. He talks about -- for example, on
16 the page which he characterizes as Page 8 of 27, the
17 Phase 1 stipulation refers to both legal -- to both
18 physical or scientific characteristics and legal
19 characteristics, and I believe he purports to some
20 extent to have analyzed the legal characteristics.

21 I don't think Mr. Bunn is going to sit here
22 and tell you that he plans to have this witness offer
23 up a legal opinion, but I think he has the right to
24 inquire into every single potential basis or
25 consideration that this man put in formulating his

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1 opinions, whether he relied on them or not.

2 Even if he considered it as part of his
3 opinion, Mr. Bunn or I or any other attorney in this
4 room can inquire about that.

5 MR. ZIMMER: Let's let Mr. Bunn ask about
6 that and find out whether it is an issue.

7 MR. JOYCE: I will say I think you took a
8 snippet and made an inferential leap as to -- a
9 conclusion as to what he may or may not --

10 MR. BRUYNEEL: I am forced to take snippets
11 because I didn't get it in time to digest it.

12 MR. JOYCE: I made the record. I explained
13 why I thought the line of questioning was irrelevant.
14 If you want to waste your time, I didn't tell him not
15 to answer the question.

16 The record is made. Proceed as you wish.

17 MS. FUENTES: He was instructed not to
18 answer the question.

19 MR. JOYCE: That was my record. Not by me.
20 You all do what you are going to do.

21 MR. ZIMMER: My suggestion is maybe Mr. Bunn
22 can explore the question that Counsel has. I don't
23 have any problem with you asking him about the --
24 that portion of the Mojave decision that he has
25 relied upon.

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1 I can't see any potential -- I am not
2 offering him up as a legal expert; I am not offering
3 him as a witness to testify what the law is, what the
4 law should be or how the law applies to this case.
5 If counsel brought up an issue, I don't have any
6 problem with you asking about that, because that
7 is --

8 MR. BUNN: It is in his report.

9 MR. ZIMMER: It is in his report. And if it
10 is expressed as a legal opinion in his report, then I
11 don't have any problem with you.

12 MR. BRUYNEEL: When he discusses whether
13 there is a legally adverse effect, that is legal
14 rights, and that is exactly what Mr. Bunn is asking
15 about. And Mr. Bunn has the right to explore that.

16 MR. ZIMMER: If he did that, Counsel, I
17 agree with you. But I don't think he did.

18 MR. JOYCE: If you read the report, you'll
19 find out he didn't. What he did is he says the
20 stipulation -- I don't care. The report says what it
21 says. You do what you are going to do. I'm done.
22 The report says what he is going to say.

23 MR. ZIMMER: He is Bunn. Dunn is not here.

24 MR. JOYCE: I didn't say Dunn, D-u-n-n. I
25 said I'm done, d-o-n-e.

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1 MR. ZIMMER: Go ahead, Mr. Bunn, and we will
2 see where we are going.

3 MR. BUNN: So has everybody stated all the
4 objections they want to state?

5 MR. ZIMMER: Probably not.

6 MR. JOYCE: I think the record is clear.

7 MR. BRUYNEEL: Let's get an answer.

8 THE WITNESS: Are you waiting for me to
9 answer?

10 MR. BUNN: No. I'm formulating a question.

11 BY MR. BUNN:

12 Q. Do you have an understanding of what the
13 term "groundwater basin adjudication" means?

14 MR. ZIMMER: That may assume that means the
15 same thing.

16 THE WITNESS: I have seen that phrase used
17 in the context that it was used. It is my best
18 recollection that I understood what was meant by that
19 at that time in that context.

20 I'm not sure that I could take it out of
21 context, though, and tell you what that means.
22 Matter of fact, I'm sure that I could not take it out
23 of context to tell you what that means.

24 BY MR. BUNN:

25 Q. You are sure that you could not give a

1 definition of "groundwater basin adjudication"? Is
2 that correct?

3 A. No. I'm sure that I could not take that
4 term out of context and tell you what it means.

5 Q. How is that different from what I said?

6 A. My words versus yours. I like my words
7 better than yours.

8 Q. Do you have an understanding of what the
9 concept of "safe yield of the groundwater basin"
10 means?

11 MR. ZIMMER: Sounds like a Phase 2 issue to
12 me. How is that relevant to Phase 1?

13 MR. BUNN: It may not be, but I would like
14 to hear what his understanding is.

15 THE WITNESS: In a similar manner, I've seen
16 the phrase "safe yield" used in various contexts.
17 The best of my recollection, where I've seen that, by
18 and large I understand what is being referred to by
19 the phrase "safe yield."

20 But it is different in different instances.
21 Again, I could not take that term out of context and
22 give you a definition that was meaningful.

23 BY MR. BUNN:

24 Q. In your report, in that paragraph that we
25 were discussing a few moments ago, you said,

1 "In discussing groundwater basin
2 boundaries, however, the L&S technical
3 memorandum notes that in practice, the
4 term 'groundwater basin'" -- and you
5 have italicized "groundwater basin" --
6 "is loosely defined. It must be
7 concluded, therefore, the boundaries
8 of the groundwater basins must also be
9 loosely defined."

10 I don't see -- well, would you explain how
11 you get from the one point to the other?

12 MR. ZIMMER: It is vague. What one point to
13 the other?

14 MR. JOYCE: Do you mean generally or do you
15 mean with reference specifically to with reference to
16 Mr. Scalmanini's report?

17 MR. BUNN: I am talking with reference to
18 Mr. Scalmanini's report.

19 MR. JOYCE: I was just curious of the
20 context.

21 MR. BUNN: Thank you.

22 BY MR. BUNN:

23 Q. I don't follow the logic, is what I am
24 saying, and I would ask you to explain that.

25 A. I would be happy to.

1 As used in the L&S technical memorandum, the
2 term "groundwater basin boundary" is applied to some
3 lines on the map. The report notes that "groundwater
4 basin" is loosely defined.

5 I understand from that that the specific
6 limits of what is being referred to purporting to be
7 lines representing groundwater basins are loosely
8 defined. And therefore, if the area being referred
9 to by that is loosely defined, then the boundaries
10 that are associated with that area must, by
11 definition, necessarily be loosely defined also.

12 MR. BRUYNEEL: Would you please mark that
13 answer. Thank you.

14 Mark that answer in the index. In fact,
15 could I impose on you to read it back.

16 (The previous answer was read back
17 by the court reporter as follows:

18 "ANSWER: As used in the L&S
19 technical memorandum, the term
20 'groundwater basin boundary' is
21 applied to some lines on the map. The
22 report notes that 'groundwater basin'
23 is loosely defined.

24 "I understand from that that the
25 specific limits of what is being

1 referred to purporting to be lines
2 representing groundwater basins are
3 loosely defined. And therefore, if
4 the area being referred to by that is
5 loosely defined, then the boundaries
6 that are associated with that area
7 must, by definition, necessarily be
8 loosely defined also.")

9 BY MR. BUNN:

10 Q. I think you told me earlier that you agree
11 that in practice the term "groundwater basin" is
12 loosely defined; is that correct?

13 MR. ZIMMER: I think that misstates his
14 testimony. It is vague.

15 BY MR. BUNN:

16 Q. Well, if I'm wrong, tell me how I'm wrong.

17 A. I don't believe I stated that in so many
18 words.

19 Q. Do you agree?

20 MR. ZIMMER: Agree what?

21 BY MR. BUNN:

22 Q. That the -- in practice, the term
23 "groundwater basin" is loosely defined.

24 MR. ZIMMER: Vague as to "in practice."
25 What kind of practice?

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1 MR. BUNN: I don't know.

2 MR. BRUYNEEL: You could start with geology
3 in terms of what practice.

4 THE WITNESS: Let me get the clarification.
5 You are asking me how has the term ever been used
6 loosely?

7 BY MR. BUNN:

8 Q. No. I'm asking you whether you would
9 characterize the term "groundwater basin" as a
10 loosely defined term?

11 MR. ZIMMER: It is vague as to "groundwater
12 basin." Vague as to content. Vague as to who's
13 defining it.

14 THE WITNESS: I believe I've indicated to
15 you in earlier testimony that, taken out of context,
16 it is not possible to give a definition of
17 groundwater basin. It can only be done in context
18 for a particular purpose.

19 So if you are asking me, taken out of
20 context is it loosely defined, it is not defined at
21 all taken out of context. So, loosely or otherwise.

22 Taken in context for a particular purpose,
23 perhaps the answer is different. But it would depend
24 on the particular context and the particular purpose.

25 ///

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1 BY MR. BUNN:

2 Q. What if the context and purpose were for the
3 purpose of determining groundwater rights?

4 MR. ZIMMER: Vague as to "groundwater
5 rights."

6 THE WITNESS: That is not a sufficient
7 statement of purpose.

8 BY MR. BUNN:

9 Q. In what way is it not sufficient?

10 A. It doesn't allow me to appropriately define
11 the term without knowing more.

12 Q. What further information would you need?

13 A. I have not considered. It would depend on a
14 wide variety of things. It may be -- after looking
15 at all the information available, it may be
16 inappropriate to apply the term "groundwater basin"
17 at all.

18 Q. Are you familiar with any situation other
19 than Mr. Scalmanini's report in which "groundwater
20 basin" was used as a unit for defining groundwater
21 rights?

22 MR. ZIMMER: Vague as to "situations."

23 THE WITNESS: What do you mean by
24 "groundwater basin" in that context?

25 ///

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1 BY MR. BUNN:

2 Q. Under any definition whether somebody called
3 it a groundwater basin was used in order to determine
4 relative water rights.

5 MR. ZIMMER: That was asked and answered.
6 He testified to some of that earlier.

7 THE WITNESS: I understand your question to
8 be am I aware of any situation where the phrase
9 "groundwater basin" was used in a context that
10 involved groundwater rights.

11 BY MR. BUNN:

12 Q. Where the concept "groundwater basin" was
13 used, yes.

14 A. Concept? I don't know what you mean by "the
15 concept groundwater basin." If -- I can answer with
16 regard to the term, but I don't know what you mean by
17 "the concept groundwater basin." I can't answer with
18 regard to that.

19 Q. Well, let's give the answer that you are
20 willing to give, then, about the term.

21 A. Can you then restate the question so I'm
22 real clear on what I am answering.

23 Q. Certainly.

24 Are you aware of any case where what was
25 described as a groundwater basin was used as a

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1 relevant unit for determining relative water rights?

2 MR. ZIMMER: Vague as to "case." You are
3 talking about some example where someone did an
4 evaluation of water rights?

5 MR. BUNN: No. I'm broader than that.

6 THE WITNESS: I can't answer that question.
7 I thought you were asking me whether or not the term
8 "groundwater basin" was used in connection with
9 groundwater rights. That was my understanding of
10 where we were going. But I can't answer the question
11 you just asked me.

12 BY MR. BUNN:

13 Q. I'll get to it any way I can.

14 In what context are you familiar with the
15 term "groundwater basin" being used to determine
16 water rights?

17 MR. ZIMMER: That is compound. Being used
18 is one thing. To determine water rights is a
19 different issue.

20 BY MR. BUNN:

21 Q. Do you understand the question?

22 A. No.

23 Q. Have you ever come across the term
24 "groundwater basin" used in connection with the
25 determination of water rights?

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1 A. Yes.

2 Q. Describe.

3 A. I mentioned earlier a 1977 document by an
4 attorney named Ann Schneider that summarizes her
5 understanding of water rights. And in those
6 documents, the term "groundwater basin" is used.

7 Q. To mean what?

8 A. I can't tell you what it means as I sit
9 here.

10 Q. You read that and you don't understand what
11 it means?

12 A. If I were to read it now and took into
13 account the context of what I was reading, perhaps I
14 could answer it. But I don't have a full memory of
15 documents that I read in 1977.

16 Q. Are you saying that you haven't read
17 Ms. Schneider's publication since 1977?

18 A. Not totally, no.

19 Q. Okay. Other than that, have you come across
20 any instance where the term "groundwater basin" was
21 used in connection with the determination of water
22 rights?

23 MR. ZIMMER: It is vague. Compound.

24 THE WITNESS: I don't have a specific
25 recollection of one. It is likely that I have, but I

1 don't have a specific recollection that I can
2 identify.

3 MR. BRUYNEEL: Do you mind if we took a
4 short break, about two minutes.

5 MR. BUNN: Okay.

6 (Recess.)

7 BY MR. BUNN:

8 Q. Do you have any understanding of what the
9 courts mean when they use the term "groundwater
10 basin"?

11 MR. ZIMMER: Assumes a fact not in evidence,
12 the courts mean something in particular. It is out
13 of context. Assumes that there is a legal definition
14 associated with that, too, which is a fact, not even
15 a legal proposition.

16 MR. BUNN: I am asking if there is one. I
17 am not assuming anything.

18 MR. ZIMMER: It doesn't matter. He is not
19 being proffered to give that opinion. We could have
20 tried to have done something beyond what he should be
21 able to do. He has no legal background at all. We
22 could have had Sheahan express legal opinions or
23 judicial meaning to things, but we haven't tried to
24 do that. We are not offering him on that. It has no
25 bearing on his opinions.

1 Mr. Scalmanini has.

2 MR. BUNN: I am trying to come to an agreed
3 definition of "groundwater basin" that we can use.
4 And I would like to use the one that I believe the
5 Court is using, and I am asking if he knows what that
6 is. And if he doesn't, then we will get more
7 specific, but if he does, that is easy enough.

8 MR. ZIMMER: Part of the problem is I don't
9 think there is a definition of -- as you describe
10 groundwater basin boundaries that the courts agree
11 on. Courts have looked at this issue from a variety
12 of different contexts and a variety of different
13 reasons. The term is loosely defined, and there is
14 no definition for all purposes as to what that means.

15 That is why it is not appropriate, in my
16 opinion, for an area of this litigation. I mean --

17 MR. BUNN: I'm aware that is the way you
18 feel. You are aware that I feel differently, and I
19 think I am entitled to know what the witness thinks.

20 MR. ZIMMER: The witness has no bearing on
21 that. The judge will decide that. The judge will
22 decide what that means, if anything, for purposes of
23 this particular lawsuit.

24 I am not going to have the witness on there
25 testifying as to what that means. I don't think you

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1 want me to have this witness on there testifying as
2 to what this means, in the face of having no expert
3 on the other side to address that.

4 You want me having an expert where you don't
5 have an expert opposed to it?

6 MR. BUNN: You stated an objection to my
7 question. Do you want to advise him not to answer?

8 MR. ZIMMER: What is the question?

9 MR. BUNN: Is he aware of a definition used
10 by the courts of "groundwater basin."

11 MR. JOYCE: Let him answer the question.

12 MR. ZIMMER: I'll let him answer the
13 question. I think we are wasting time.

14 THE WITNESS: As I indicated earlier, and I
15 referenced to a specific document by Schneider, who
16 is an attorney that has characterized what the courts
17 have done in water rights issues.

18 So if your question could be rephrased to
19 ask me if I've ever seen what that document does with
20 the term "groundwater basin," I could answer that.

21 BY MR. BUNN:

22 Q. I think I asked you that one. Didn't you
23 already tell me that?

24 A. No, I think what I answered was a question
25 that elicited the answer that I have seen the term

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1 "groundwater" used in a document that dealt with
2 water rights.

3 MR. ZIMMER: I think you misstated -- you
4 mean "groundwater basin."

5 THE WITNESS: I'm sorry. Let me restate
6 that.

7 I've seen the term "groundwater basin" used
8 in a document that dealt with groundwater rights.

9 BY MR. BUNN:

10 Q. That means the Schneider -- let's see if we
11 can pin it down.

12 A. That was the specific one that I mentioned,
13 yes.

14 Q. Well, I'm going to show you Page 1 of the
15 Scalmanini report which cites a work by Schneider,
16 and ask you if you know whether this is it or not.

17 Right in the center.

18 MR. ZIMMER: "It" being what he was
19 referring to?

20 MR. BUNN: Right.

21 THE WITNESS: This is the document by
22 Schneider that I am referring to.

23 BY MR. BUNN:

24 Q. Okay. And when she used the term
25 "groundwater basin" in her -- whatever this is;

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1 paper -- what meaning did that term have?

2 MR. JOYCE: The document speaks for itself.

3 MR. ZIMMER: Best Evidence Rule.

4 MR. JOYCE: Best Evidence Rule. The
5 document speaks for itself. What Schneider said, she
6 said. If you are asking do you remember what she
7 said, then that is your foundational question.

8 MR. ZIMMER: Also calls for speculation.

9 MR. BUNN: Okay.

10 BY MR. BUNN:

11 Q. How is the term used in that document?

12 A. I would rather not try to do it from memory,
13 but I have the document with me, and I would be happy
14 to pull it out and read it to you.

15 Q. Well, I would rather you did it from memory,
16 according to your best recollection.

17 A. Okay. Well, my best recollection is that it
18 defines the term as an indefinable term.

19 Q. Okay.

20 A. Again, if you like, I can show you exactly
21 what it says because it is in my documents that I
22 brought with me at your request. That way I wouldn't
23 have to rely just on my general recollection.

24 Q. Are you aware of any definitions used in
25 Court opinions of the term "groundwater basin"?

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1 MR. ZIMMER: The same objection --

2 MR. JOYCE: Let the record --

3 MR. ZIMMER: -- beyond the scope of his
4 expert testimony.

5 MR. JOYCE: Let the record reflect that
6 counsel at the other end of the table are referring
7 to Schneider as we speak.

8 MR. BRUYNEEL: Yes, we can.

9 MR. JOYCE: I suspect they can read it into
10 the record.

11 MR. BUNN: Right now I am talking about -- I
12 am not talking about Schneider; I am talking about
13 Court opinions.

14 MR. ZIMMER: Do you remember the question?

15 THE WITNESS: If you would restate it, then
16 I will be sure.

17 BY MR. BUNN:

18 Q. Whether you are aware of any Court opinion
19 that has defined the term "groundwater basin."

20 MR. ZIMMER: The same objections.

21 THE WITNESS: As I sit here today, I can't
22 specifically identify one where I could say that I
23 know it has defined the term "groundwater basin." I
24 know "groundwater basin" has been used in some. But
25 I can't specifically identify one that I can picture

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1 in my mind that defines the term.

2 BY MR. BUNN:

3 Q. Mr. Zimmer testified a moment ago that --

4 MR. ZIMMER: I didn't testify. I just
5 stated. I am not under oath.

6 BY MR. BUNN:

7 Q. -- that the use of the term "groundwater
8 basin" differs from court opinion to court opinion
9 and there is no standard use of that term.

10 Do you agree with that statement?

11 MR. ZIMMER: Beyond his expertise. He is
12 not being called as an expert in this case to express
13 opinions in that regard.

14 THE WITNESS: From a scientific standpoint,
15 I know that the term "groundwater basin" differs from
16 use to use depending on the context and purpose. I
17 would have to say that I think that carries through
18 to Court opinion as well; but I'm not an expert on
19 Court opinions.

20 BY MR. BUNN:

21 Q. I understand that. That has been made
22 abundantly clear. You have testified that you have
23 been familiar in your work with various water rights
24 issues, and as a matter of fact I believe you said
25 that they pervaded a lot of your work. And that is

1 the context that I am giving you, water rights.

2 Within that context, when people use the
3 term "groundwater basin," is it possible to say what
4 they mean?

5 MR. ZIMMER: That is speculation.

6 What people? It's vague.

7 THE WITNESS: Anything is possible. Yes, it
8 is possible, but I can't be specific based on your
9 question.

10 BY MR. BUNN:

11 Q. Do you know what people mean when they talk
12 about groundwater basin in a water rights context?

13 MR. ZIMMER: The same objections. Also,
14 assumes a fact not in evidence, that they all mean
15 the same thing.

16 THE WITNESS: In some instances I believe
17 that I understood their meaning when they used the
18 term "groundwater basin" for -- for particular
19 purposes.

20 I have to say in other instances I know that
21 I have not understood what they meant by "groundwater
22 basin" for those particular purposes. It depends on
23 how well the term is specifically defined for a
24 particular purpose.

25 MR. TOOTLE: Do you have any idea of what

1 they mean by an "adjudicated groundwater basin"?

2 MR. ZIMMER: The same objections.

3 Go ahead.

4 THE WITNESS: I think I answered that
5 earlier. I believe that means that a court of
6 competent jurisdiction has dealt with some issues
7 that they are referring to with that term. I don't
8 believe that helps us in defining what the term
9 means.

10 BY MR. BUNN:

11 Q. Bloyd -- B-l-o-y-d. Bloyd drew a
12 groundwater basin boundary for the Antelope Valley,
13 did he not?

14 MR. ZIMMER: That is vague as to
15 "groundwater basin boundaries." Are you saying that
16 he drew what he described as a groundwater basin
17 boundary?

18 MR. BUNN: Exactly. He drew what he
19 described as a groundwater basin boundary.

20 THE WITNESS: I would have to go look at the
21 specific word. My recollection is that Bloyd drew a
22 study area boundary that he referred to in some
23 instances as a groundwater basin boundary.

24 He also drew a watershed boundary, and there
25 are some other boundaries. I think in the text he

1 referred to it as a "study area boundary" with that
2 term, but I don't think I can say that he drew a
3 groundwater basin boundary because I don't recall
4 that Bloyd defined what he meant by "groundwater
5 basin boundary" other than by reference to his study
6 area.

7 BY MR. BUNN:

8 Q. So you are saying that the purpose of his
9 line that he drew was not to delineate a groundwater
10 basin but rather to delineate a study area; is that
11 correct?

12 A. That is my general understanding of reading
13 the Bloyd report, yes.

14 Q. How about Carlson, C-a-r-l-s-o-n?

15 A. I think similar. I've -- I would feel
16 obligated to go back and look at the specific text.
17 But the sense that I have is that Carlson was doing a
18 study and he defined the study area and he referred
19 to the study area. I'm not sure that he did.

20 If he referred to a study area what the term
21 "groundwater basin," it was a shorthand to describe
22 the study that he had defined for a specific purpose.

23 Q. Do you feel then that it is illegitimate to
24 use those lines that Bloyd and Carlson drew for the
25 purpose of identifying a groundwater basin?

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1 MR. ZIMMER: Vague as to the word
2 "illegitimate."

3 MR. JOYCE: What is the purpose?

4 MR. BUNN: Born without a father.

5 MR. ZIMMER: Vague as to "purpose."

6 MR. JOYCE: My objection is for what purpose
7 is the attempted identification of a, quote,
8 "groundwater basin," because that has an impact too.
9 But --

10 MR. BUNN: For the purpose of determining
11 water rights.

12 MR. JOYCE: Don't ask me. I made my
13 objection. Go on.

14 MR. BUNN: But that is the context that I'm
15 trying to place all of this in. Do you understand
16 that? That the context is for the purpose of
17 determining water rights.

18 BY MR. BUNN:

19 Q. And my question is -- well, let's make it
20 specifically to Mr. Scalmanini. He relied on these
21 two groundwater basin boundaries. Do you feel that
22 that was scientifically legitimate for him to do so?

23 MR. ZIMMER: Vague as to "relied on." In
24 what context?

25 THE WITNESS: I don't understand the

1 question because of that. As I've indicated in my
2 critique, I saw no opinions; therefore, I didn't see
3 any reliance. I saw what I characterize as a
4 presentation of work by others. I don't understand
5 your question.

6 BY MR. BUNN:

7 Q. Did you sit in on Mr. Scalmanini's
8 deposition?

9 A. Yes.

10 Q. So you heard him say that he did rely on the
11 line drawn by Bloyd in determining what he considered
12 to be the boundary of the groundwater basin; correct?

13 A. That is not correct; I did not hear him say
14 that. I listened very carefully to hear which of the
15 several lines that he showed on his Plate 1, that he
16 was selecting to represent what he was referring to
17 as a groundwater basin boundary. And I have reviewed
18 portions of the transcript of his deposition, and I
19 have not been able to find anyplace where he has told
20 us that.

21 Q. Okay. If he had relied on the line drawn by
22 Bloyd, let's say, and said, "I adopt Bloyd's line as
23 my own." Would it have been scientifically
24 legitimate for him to do that?

25 MR. ZIMMER: Vague as to "adopted Bloyd's

1 line." For what purpose?

2 MR. BUNN: For the purpose of his report.

3 BY MR. BUNN:

4 Q. If he had drawn his line in exactly the same
5 line as Bloyd, what would your criticism be?

6 MR. JOYCE: To establish a line that does
7 what?

8 MR. ZIMMER: Yes.

9 MR. JOYCE: The objection is that -- never
10 mind. Forget it, go on. I'll have to cross-examine.

11 BY MR. BUNN:

12 Q. To establish a groundwater basin boundary.

13 A. Mr. Scalmanini doesn't define groundwater
14 basin boundary, that phrase, with enough specificity
15 to allow anyone to answer that question. I certainly
16 can't answer that question without knowing what
17 "groundwater basin boundary" means. I can't go to
18 the next step of looking at a line to see whether it
19 does that.

20 Q. So you are saying in some context of the
21 definition of groundwater basin, that might be
22 appropriate; is that correct?

23 A. I don't think I'm saying that. I'm pretty
24 sure I don't understand what you just said.

25 Q. I asked you whether it was appropriate for

1 him to rely on Bloyd's line to determine the
2 boundaries of the groundwater basin, and you give me
3 a wishy-washy answer which to me indicates that it
4 might have been appropriate in some context and not
5 in others; is that correct?

6 MR. ZIMMER: Sounds argumentative, and
7 probably vague, too.

8 BY MR. BUNN:

9 Q. I didn't -- strike "wishy-washy." You gave
10 me an answer.

11 MR. JOYCE: Eliminate the wishy-washy, and
12 then it is not argumentative.

13 THE WITNESS: At this stage -- in this
14 discussion that you and the other attorneys are
15 having, I'm trying to keep up with your questions.
16 It would help me if you have it read back precisely
17 or just restate it so I would be able to answer it
18 more clearly.

19 BY MR. BUNN:

20 Q. Would it ever have been appropriate for
21 Scalmanini to come up with a definition of
22 "groundwater basin" such that he could simply use
23 Bloyd's line?

24 MR. ZIMMER: It's vague. Appropriate for
25 what purpose?

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1 THE WITNESS: It's certainly possible that
2 there may be a purpose for which he might have
3 adopted Bloyd's line and referred to it as a
4 groundwater basin boundary.

5 BY MR. BUNN:

6 Q. Okay. What would such a permissible --

7 A. Let me finish.

8 Q. I'm sorry.

9 A. I don't know what that purpose would be. It
10 would be totally dependent upon his purpose, and
11 whether it would be appropriate or not would depend
12 on whether you are asking me to characterize it
13 scientifically or from some other perspective.

14 So I don't think I can answer that part of
15 your compound question.

16 Q. Scalmanini in his report cites a reference
17 by Richter, R-i-c-h-t-e-r, called "California
18 Groundwater Geology, 1974."

19 He says,

20 "The latter reference defines a
21 groundwater basin as an area underlain
22 by one or more permeable formation
23 capable of furnishing a substantial
24 water supply."

25 Is that a commonly used definition?

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1 MR. ZIMMER: Vague as to in what context.

2 THE WITNESS: I can honestly say I have
3 never heard that definition before. And it is so
4 overly broad that it would apply to the northern
5 American continent. I doubt seriously that it has
6 ever been used by others. I don't know that it
7 hasn't, but I doubt that it has.

8 BY MR. BUNN:

9 Q. Okay.

10 MR. BRUYNEEL: I would ask the court
11 reporter to read back that last answer for me,
12 please.

13 (The previous answer was read back by
14 the court reporter as follows:

15 "ANSWER: I can honestly say I
16 have never heard that definition
17 before. And it is so overly broad
18 that it would apply to the northern
19 American continent. I doubt seriously
20 that it has ever been used by others.
21 I don't know that it hasn't, but I
22 doubt that it has.")

23 BY MR. BUNN:

24 Q. Are you familiar with the Richter textbook?

25 A. The Richter textbook that you are referring

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1 to is the document that Mr. Scalmanini refers to?

2 Q. Yes.

3 A. I have a copy of the document that
4 Mr. Scalmanini provided during his deposition as an
5 exhibit that he referred to. And so to that extent,
6 yes.

7 MR. JOYCE: I would suggest to refer to it
8 as a "textbook" would be an excessive
9 characterization.

10 MR. BUNN: Okay.

11 BY MR. BUNN:

12 Q. Had you seen it before this case?

13 A. I had seen it referenced before, but I had
14 not seen the document.

15 Q. On the basis of -- well, strike that.

16 Is that document a document on which
17 hydrogeologists might justifiably rely?

18 MR. ZIMMER: Can you read that back.

19 MR. JOYCE: The entire document? A portion
20 of it? A singular definition out of it?

21 MR. BUNN: I am not asking him to swear to
22 the truth of everything in the document; I'm simply
23 asking if it is the type of document on which someone
24 would rely.

25 MR. ZIMMER: Vague as to for what purpose.

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1 BY MR. BUNN:

2 Q. Do you understand the question?

3 A. Not fully. Are you talking about, as you
4 said earlier, all your questions refer to in the
5 context of water rights, or are we talking about in
6 terms of expert witness testimony as we are in this
7 case? I don't know really what your question is
8 asking.

9 MR. ZIMMER: Also, vague as to what
10 particular aspect of the writing. Some experts might
11 want to have part of what is in some kind of writing,
12 others rely on other parts.

13 MR. BUNN: If he feels that part of it is
14 reliable and others aren't, he can tell me.

15 THE WITNESS: Are you asking for my opinion
16 whether it is appropriate to be relied upon or
17 whether it is the type of document that some experts
18 do rely?

19 BY MR. BUNN:

20 Q. Whether it is appropriate. Whether this
21 particular document is something that someone could
22 rely upon.

23 MR. JOYCE: Also, lacks foundation that he
24 has seen the entire document.

25 MR. ZIMMER: Vague as to "rely on." For

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1 what purpose?

2 MR. JOYCE: I am not trying to -- Tom, to be
3 fair, all he has seen is what Scalmanini produced,
4 Scalmanini did not produce the entire text. He only
5 produced an excerpted portion of it at his
6 deposition. That is all he has been privy to.

7 He has not seen the entire publication,
8 whatever it is, and so it would be unfair for him to
9 attempt to assess whether or not the entire
10 publication would have any significance or
11 reliability or unreliability, when he has never seen
12 it. By that, I mean the entire document.

13 BY MR. BUNN:

14 Q. What portion of the document have you seen?

15 A. The portion that I was provided by
16 Mr. Scalmanini at his deposition.

17 Q. And as to that portion of it, is it a
18 document that skilled hydrogeologists could
19 appropriately rely on?

20 MR. ZIMMER: Vague as to for what purpose.

21 THE WITNESS: I'm having a problem also with
22 your term of "appropriate."

23 It is a document. Skilled hydrogeologists
24 rely on various documents appropriately for various
25 purposes.

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1 BY MR. BUNN:

2 Q. Actually, I was using your term,
3 Mr. Sheahan, because you said that you could testify
4 as to whether it was appropriate to rely on it. And
5 that is what I was trying to pare it back to.

6 A. Okay. I'm trying to explain that in some
7 instances, it might be appropriate to rely upon it if
8 you are relying upon it to show that someone at a
9 previous time has made a statement. But to rely upon
10 a concept that is presented, that might be a
11 difference.

12 So there are difference in appropriateness,
13 and your question is grouping all of those together.

14 So I would have to say that it is the kind
15 of document that skilled hydrogeologists look to at
16 times to rely upon if they find it to meet their
17 purpose and to be the appropriate document in a
18 particular instance.

19 That has to be judged based on the
20 specifics.

21 Q. So in some circumstances, anyway, someone
22 could rely upon this document; correct?

23 A. I think someone has relied upon the
24 document.

25 Q. Are you aware of any aspect of this document

1 that is unreliable?

2 MR. ZIMMER: Vague. What aspect? In what
3 context, in what respect?

4 THE WITNESS: When you say "unreliable," I
5 need to know what you mean by that.

6 BY MR. BUNN:

7 Q. On which no reasonable hydrogeologist would
8 rely.

9 MR. ZIMMER: On what issue? It is vague.

10 THE WITNESS: On what issue?

11 BY MR. BUNN:

12 Q. On any issue. Are you aware of anything
13 that you would point out to me and say, "This is
14 unreliable for a hydrogeologist to use. It is
15 wrong."

16 A. Well, I think -- to answer that, I need to
17 sit down and look at the document, and look at it
18 specifically for that purpose. Since it is not a
19 document that I relied upon for my opinions, that I
20 just reviewed as part of the documents, I don't know
21 the document that well.

22 I would be happy to take a few minutes and
23 look at it to see if I can answer your question.

24 Q. You did critique the Scalmanini report, did
25 you not?

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1 MR. ZIMMER: Asked and answered.

2 THE WITNESS: I thought we were talking
3 about the Richter document.

4 BY MR. BUNN:

5 Q. Yes. I am asking now --

6 A. Yes, I did critique the Scalmanini report.

7 Q. And as part of that critique, did you
8 examine the sources that he used and whether they
9 were reliable or not?

10 A. Could you break that into two separate
11 questions.

12 Q. Did you deal with reliability of sources?

13 MR. ZIMMER: Vague.

14 THE WITNESS: You are confusing me now,
15 because -- are you asking me did I deal with whether
16 or not the documents that Mr. Scalmanini relied upon
17 are reliable for any purpose, or were they -- what?
18 I don't understand clearly what you are asking.

19 BY MR. BUNN:

20 Q. Let me try to break it down this way and see
21 if that makes any more sense.

22 The way that I look at things, when one is
23 critiquing an expert's report, one could say either
24 of two things. One could say that the conclusions
25 reached are not supported by the sources used.

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1 Do you understand that?

2 A. I understand what you are saying.

3 Q. Okay. The other thing you could say is they
4 may or may not be supported by the sources used, but
5 those sources are unreliable.

6 I'm asking you -- you clearly did the first
7 one: You talked about whether the support sources he
8 used supported his conclusions.

9 I'm asking you whether you did the second
10 one.

11 MR. ZIMMER: That assumes that is all he
12 could do with that. That assumes it is his approach.

13 MR. BUNN: I am asking whether it is his
14 approach.

15 MR. ZIMMER: So the record is clear, I
16 assume by the structure of your question you are not
17 presupposing those are the only two conclusions one
18 could reach or two approaches to a critique that one
19 could take. This is my note of objection. I assume
20 that is correct; you are not excluding others.

21 With that observation in mind, you can
22 answer the question.

23 BY MR. BUNN:

24 Q. Did you consider the reliability of sources
25 in your critique?

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1 MR. ZIMMER: Vague as to which sources. And
2 what issue.

3 THE WITNESS: Yes.

4 BY MR. BUNN:

5 Q. Could you explain in what respect you
6 considered the reliability of the sources?

7 A. I looked at the sources that he referenced,
8 and I realized that those were documents that were
9 published documents upon which he had relied.

10 I did not go behind those documents to
11 assess whether or not those documents in and of
12 themselves were reliable. But I looked instead at
13 how Mr. Scalmanini presented his information based on
14 those documents.

15 One needs to stop at some point in doing
16 that kind of analysis, because by and large all of
17 the referenced documents that are relied upon in any
18 given document also have referenced documents.

19 And if I were to go behind the first
20 document to see whether it was reliable, I would have
21 to go to each and every one of the documents that it
22 relies upon to see if they were reliable, and so on
23 and so on and so on.

24 And so in my analysis of Mr. Scalmanini's
25 report, I went to see what documents he relied upon.

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1 I reviewed those documents, but I didn't make an
2 assessment as to whether those documents, in and of
3 themselves, are reliable; instead, I looked at what
4 Mr. Scalmanini did himself in his report, and I
5 limited my assessment to that.

6 Q. Just so that I am clear, then, would you
7 please look at Mr. Scalmanini's report and the list
8 of references that he has at the end of that.

9 A. Do you have a copy of that?

10 Q. Yes. I am going to hand it to you right
11 here.

12 And tell me whether it is your view today
13 that any of the sources that Scalmanini used should
14 not have been relied upon by a hydrogeologist --
15 okay? -- because the source themselves -- themselves, is
16 not the type of source that is relied upon by
17 hydrogeologists.

18 MR. JOYCE: For any reason?

19 MR. BUNN: Yes.

20 BY MR. BUNN:

21 Q. Do you understand the question?

22 A. I don't have to look at the document to
23 answer the question. All of those documents are such
24 that for a particular purpose a hydrogeologist may
25 want to rely upon them, but it depends on the purpose

1 and it depends on the purpose of those documents and
2 it depends on the purpose of the hydrogeologist.

3 It is not a clear-cut case for any of those
4 documents, that they are reliable or unreliable.
5 Some of them are not reliable for certain issues
6 because they don't properly address those issues.
7 All of them are reliable for certain issues because
8 they all do address certain issues.

9 Q. I hope to get at that as we are discussing
10 Mr. Scalmanini's conclusions.

11 Okay. That being the case, let me skip to
12 the statement about the San Andreas Fault Zone on
13 Page 5 of your report.

14 MR. ZIMMER: Page 5?

15 MR. BUNN: Uh-huh.

16 MR. ZIMMER: Which paragraph?

17 MR. BUNN: The only complete paragraph.

18 BY MR. BUNN:

19 Q. If I understand this paragraph correctly,
20 you are saying that Mr. Scalmanini claims to have
21 taken the location of the San Andreas Fault Zone from
22 Bloyd, but, in fact, it doesn't match.

23 Is that correct?

24 A. No.

25 Q. Okay. Could you explain what you do mean,

1 then.

2 A. I believe it speaks for itself. Let me see
3 if I can say it. I am referring to Plate 1.

4 Plate 1 incorrectly shows the postulated
5 location of the San Andreas Fault Zone to be the same
6 line as the southern segment of the line depicted as
7 the Bloyd 1967 basin boundary.

8 Q. Okay. Perhaps I did misstate it a little
9 bit before.

10 You are saying that Bloyd has two lines, one
11 being the southern basin boundary and one being the
12 San Andreas Fault Zone, and they are not coincident;
13 is that correct?

14 A. No, that is not correct.

15 Q. I'm trying my best.

16 A. Let me see if I can help you at this late
17 date in the day. I am referring to Plate 1.

18 I know it is clear, from the previous
19 portion of the report, it's a plate that was
20 presented by Scalmanini and purports to be a map that
21 Mr. Scalmanini prepared or directed the preparation
22 of.

23 What I'm saying here is Plate 1 shows the
24 location of the San Andreas Fault Zone as a
25 postulated fault, and it shows it at the same

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1 location as Plate 1 depicts; what Plate 1 purports to
2 be the Bloyd 1967 line.

3 So everything I'm referring to here, I'm
4 referring to what is done on Plate 1. I'm not
5 referring to whether or not Bloyd did or did not do
6 something. I am talking about what is shown on
7 Plate 1.

8 Q. Okay. What does "postulated fault" mean?

9 A. It is not defined in the Scalmanini report,
10 but I understand it to be a fault line for which
11 there is no geological evidence; that is, a line that
12 is guessed at based on other indirect evidence.

13 Q. There is considerable geological evidence
14 for the San Andreas fault, is there not?

15 MR. ZIMMER: Vague as to location.

16 THE WITNESS: Are you referring to the fault
17 zone? When you say "fault," is that a shorthand for
18 San Andreas Fault Zone?

19 BY MR. BUNN:

20 Q. Tell me what the --

21 A. The San Andreas Fault Zone is defined on
22 geologic maps in the area. It is the term that is
23 used on Plate 1, and it is the term that I used in my
24 report. I am wondering --

25 Q. What do you mean --

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1 A. -- if you are referring to it.

2 Q. What do you mean by that term?

3 A. I mean by this term, the term as used in the
4 Scalmanini Plate 1. That is what I mean here in this
5 report -- in this paragraph on Page 5.

6 Q. Does the term "San Andreas Fault Zone" have
7 an accepted meaning so that a geologist would know
8 what you were talking about?

9 A. Outside of the context of the Scalmanini
10 report?

11 Q. Yes.

12 A. Yes.

13 Q. What is that accepted meaning?

14 A. It's the general alignment along which there
15 has been movement of two continental plates, tectonic
16 plate, one continental and one sub-sea plate. But it
17 is the general line along which there has been that
18 movement, and it has caused breaking and fracturing
19 of rock over a area of finite width, along a very
20 long alignment.

21 So that area of finite width along that
22 alignment is referred to as the San Andreas Fault
23 Zone.

24 Q. And as it goes through the Antelope Valley,
25 how wide is it?

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1 MR. ZIMMER: Vague as to location.

2 THE WITNESS: Your question assumes
3 something that is not correct.

4 BY MR. BUNN:

5 Q. What does it assume that is not correct?

6 A. You said "as it goes through the Antelope
7 Valley." The San Andreas Fault Zone does not go
8 through the Antelope Valley. It goes along the south
9 edge of the Antelope Valley through the San Gabriel
10 Mountains.

11 And that is the point that I'm making in
12 this paragraph: That Mr. Scalmanini, on his Plate 1,
13 incorrectly shows the location of the San Andreas
14 Fault Zone within the Antelope Valley, and he shows
15 it along the same alignment as the line that he shows
16 as the Bloyd 1967 line.

17 So that is the point I am making in this
18 paragraph. I am not saying that it is correctly
19 done. I am saying that it is incorrectly done.

20 Q. Okay. Did he correctly transfer the portion
21 of the Bloyd 1967 line, the southern portion that
22 went near the fault zone?

23 MR. ZIMMER: Vague as to where you are
24 talking about.

25 MR. JOYCE: And disregarding how he labeled

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1 it, the San Andreas Fault Zone, you mean?

2 MR. BUNN: Right.

3 THE WITNESS: I didn't specifically compare
4 those one to one. It looks as if he did a reasonable
5 job of transferring that portion of the Bloyd line
6 onto his Plate 1, but I can't say it is exactly
7 right.

8 BY MR. BUNN:

9 Q. Where he went wrong was saying that that is
10 the San Andreas Fault Zone; is that correct?

11 MR. ZIMMER: That's vague.

12 THE WITNESS: Well, in response to that, let
13 me say that this paragraph that started this
14 question-and-answer session is pointing that out. I
15 wouldn't characterize it as where he went wrong.
16 That is a specific instance of an incorrect depiction
17 on his Plate 1.

18 BY MR. BUNN:

19 Q. One of many places he went wrong?

20 MR. ZIMMER: "Went wrong" is vague.

21 MS. FUENTES: Tom, I have to leave.

22 MR. ZIMMER: Are you talking about where he
23 described it?

24 MR. BUNN: Let's go off the record for a
25 minute.

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1 (A discussion was held off the record.)
2 (The deposition was adjourned at 5:05 p.m.)
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--o0o--

Please be advised the foregoing deposition was read,
and I state there are:

(Check one)

NO CORRECTIONS

CORRECTIONS ATTACHED

N. THOMAS SHEAHAN

Date Signed

--o0o--

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1 DEPONENT'S CHANGES OR CORRECTIONS

2 Note: If you are adding to your testimony, print
3 the exact words you want to add. If you are deleting
4 from your testimony, print the exact words you want
5 to delete. Specify with "Add" or "Delete" and sign
6 this form.

7

8 DEPOSITION OF: N. THOMAS SHEAHAN

9 CASE: DIAMOND VS. CITY OF LANCASTER

10 DATE OF DEPOSITION: JULY 18, 2002

11

12 PAGE LINE CHANGE/ADD/DELETE

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25 Deponent's Signature

Date

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1 STATE OF CALIFORNIA)
) ss.
2 COUNTY OF LOS ANGELES)

3

4 I, JONNELL AGNEW, CSR NO. 5437, Registered
5 Professional Reporter No. 000453, a Notary Public for
6 the County of Los Angeles, State of California, do
7 hereby certify;

8 That prior to being examined, N. THOMAS
9 SHEAHAN, the witness named in the foregoing
10 deposition, was by me duly sworn to testify the
11 truth, the whole truth, and nothing but the truth;

12 That said deposition was taken before me at
13 the time and place herein set forth, and was taken by
14 me in shorthand and thereafter transcribed into
15 typewriting under my direction and supervision,
16 and I hereby certify that the said deposition is a
17 full, true and correct transcript of my shorthand
18 notes so taken;

19 I further certify that I am neither counsel
20 for nor related to any party to said action, nor
21 in any way interested in the outcome thereof.

22 IN WITNESS WHEREOF, I hereunto subscribe my
23 name and affix my seal this 24th day of July, 2002.

24

25 Notary Public in and for the County
of Los Angeles, State of California